



Conservation Insider

April 2021

Hello CCCA friends and volunteers! We hope you are enjoying our long-awaited Spring. Nature is beginning to buzz and the trees are popping out new leaves.

“The world is exploding in emerald, sage, and lusty chartreuse - neon green with so much yellow in it. It is an explosive green that, if one could watch it moment by moment throughout the day, would grow in every dimension.”

— Amy Seidl, *Early Spring: An Ecologist and Her Children Wake to a Warming World*

SAVE THE DATE for our May 11th Community Program

“Saving Comal’s Rural Heritage”, May 11th, 6:00-7:00,

Join CCCA May 11th to learn about the importance of "Saving our Rural Land Heritage".

Guest speakers David K. Langford of the Hillingdon Ranch in Kendall County, and Rob and Teresa Ohlrich Johnson of the JO Ranch in Comal County will share their stories

about their families' use of conservation easements as a tool to preserve their families' land and ranching heritage along with the natural and cultural heritage of our beautiful Texas Hill Country.

Everyone is invited to hear these passionate landowners discuss the importance of saving Comal's rural and cultural heritage. The link or location of the program will be determined soon.

Please visit the CCCA website at:

<http://www.comalconservation.org/2021-events.html> to learn more.

CCCA NEWS

We're happy to welcome our two newest Partners - the Texas Wildlife Association (TWA) and the Texas Wildlife Association Foundation (TWAF.) These two great organizations share a brand-new headquarters office in north New Braunfels, on FM 1102. Meet our new Partners:

The Texas Wildlife Association is a statewide membership organization that serves Texas wildlife and its habitat, while protecting property rights, hunting heritage and the conservation efforts of those who value and steward wildlife resources. Formed in 1985, one fundamental beliefs of TWA is that the future well-being of wildlife, game, nongame and rare species depends upon private landowners' commitment to habitat. Learn more at <http://www.texas-wildlife.org>

In 1991, the Texas Wildlife Association Foundation was formed as a 501(c)(3) non-profit organization, dedicated to providing ethical environmental education about wildlife and habitat conservation to Texans of all ages.

TWAF promotes educational, research, and informational activities in support of wildlife, habitat, and the management of the same. The activities and programs include science curriculum for middle school students, leadership camps, youth hunting opportunities, teacher training and adult education seminars, all of which are conducted by the Texas Wildlife Association. Check out their website to learn more about their programs. <https://www.twafoundation.org>

NEW BRAUNFELS NEWS Candidates & Issues Forum April 12

The Leadership New Braunfels Alumni Association will host a Candidates & Issues Forum at the McKenna Events Center on Monday, April 12 from 11:30 a.m. to 1:00 p.m. This forum will be emceed by Carter Casteel and will feature candidates for the May 1 Uniform Election.

The Council seats for Districts 3 and 4 are up for election this cycle. Additionally, 18 proposed changes to the City Charter will be voted on. Candidates running for City Council District 3 Harry Bowers (incumbent) and Kevin Robles and candidates for City

Council District 4 Joy Harvey and Lawrence Spradley have confirmed their attendance. Additionally, speakers will provide information on the 18 proposed amendments to the City Charter. Be an informed voter, and VOTE!
For more information visit <http://www.chamberinnewbraunfels.com/articles/post/candidates-forum-april-12/>

LIGHTS OUT FOR WILDLIFE

from Texas Conservation Alliance - <https://www.tcatexas.org/>

Lights Out Texas!

Texans love our wildlife and abundant natural heritage. Unfortunately, Texas birds are declining, in part due to collisions with brightly lit businesses, homes, and other buildings. We're calling on all Texans to go Lights Out for Wildlife and save birds by dimming non-essential lighting, April 19 to May 7 from 11 PM to 6 AM. With the simple flip of a switch, each of us can do our part to protect millions of migrating birds soaring across our Lone Star sky. Learn More at: <https://www.comalconservation.org/night-skies.html>

MONTHLY SPOTLIGHT ON CAVES, AND KARST

Our CCCA SPOTLIGHT this month focuses on an important and under appreciated aspect of our water and hill country geology. We hope you will take a look at the CCCA website for more information. <https://www.comalconservation.org/caves--karst.html>

AND speaking of Caves, Karst and Honeycomb Rocks CCCA's poetic writer Frank Dietz has written a new article for the HZ that we are sure you will want to read.

CAVES, KARST & HONEYCOMB ROCKS! By Frank Dietz for the HZ

For those who come to visit and view our Texas Hill Country and sites in Comal County, geological features abound! Any walk across an acre in the rise of the Edwards escarpment gives clues to natural drains in the porous substructure limestone. It's an ancient story for another time.

In more recent geologic time, namely some decades ago, Karen's Aunt who operated and managed over a thousand acres of Hill Country ranching called out to me, "Frank boy, bring your sons and get in the truck." She added that we should bring any pennies I had in change along. Curious, these instructions and preparation, for what was to be a ride through pastures. I did find a penny for each son. First she took us to a remote well site providing "smelly water" for livestock. We three on the excursion agreed we were glad the well at the ranch house didn't provide such water! Then some distance away she had us go to an opening covered by a large rock which we pushed aside for an exposed opening. She instructed each boy some minutes apart to drop his penny in the opening. Each toss we waited and waited and waited before a splash far away could be

heard. Then she asked me to drop a larger stone and after a substantial pause a bigger splash was heard. For a long time after, the boys would ask if we'd go to the "cave and stream spot." In between visits we began to weave imaginary tales about the "under life." Would that I had taped or written a record of those imaginative promptings the natural phenomena gave us.

Read the entire article at <https://www.comalconservation.org/caves--karst.html>

We highly recommend reading the following to learn about what lies beneath our feet.

LIVING ON KARST by the American Geological Institute

In cooperation with National Speleological Society and American Cave Conservation Association, Illinois Basin Consortium, National Park Service, U.S. Bureau of Land Management, USDA Forest Service, U.S. Fish and Wildlife Service, U.S. Geological Survey. To get a sense of what's in the book read the excerpt below.

Karst areas are among the worlds most diverse, fascinating, resource-rich, yet problematic terrains. They contain the largest springs and most productive groundwater supplies on Earth. They provide unique subsurface habitat to rare animals, and their caves preserve fragile prehistoric material for millennia. They are also the landscapes most vulnerable to environmental impacts. Their groundwater is the most easily polluted. Water in their wells and springs can dramatically and rapidly fluctuate in response to surface events. Sinkholes located miles away from rivers can flood homes and businesses. Following storms, droughts, and changes in land use, new sinkholes can form suddenly, collapsing to swallow buildings, roads, and pastures.

The unique attributes of karst areas present challenges. In many cases, understanding the complex hydrologies of karst aquifers still requires specialists for accurate assessments. Unlike other terrains where most processes occur and can be observed at the surface, many critical processes in karst occur underground, requiring monitoring of groundwater flow and exploration and study of caves. Rather than being mere geologic curiosities, caves are now recognized as subsurface extensions of karst landscapes, serving vital roles in the evolution of the landscapes, and in defining the environmental resources and problems that exist in those areas.

Link to the free pdf book at https://www.researchgate.net/publication/269573386_Living_on_Karst

From the NATIONAL PARKS SERVICE

Karst Landscapes - <https://www.nps.gov/subjects/caves/karst-landscapes.htm>

Introduction - Karst is a type of landscape where the dissolving of the bedrock has created sinkholes, sinking streams, caves, springs, and other characteristic features. Karst is associated with soluble rock types such as limestone, marble, and gypsum. In general, a typical karst landscape forms when much of the water falling on the surface interacts with and enters the subsurface through cracks, fractures, and holes that have been dissolved into the bedrock. After traveling underground, sometimes for long distances, this water is then discharged from springs, many of which are cave entrances.

Sinkholes - A sinkhole is a depression or hole formed when the land surface sinks due to underground bedrock dissolution or cave collapse. In developed areas, catastrophic sinkhole collapse can cause significant damage and loss of life.

Karst and Water - Karst is ideal for storing water as an aquifer and provides vast amounts of clean drinking water to people, plants, and animals. Because of the porous (Swiss cheese-like) nature of karst, water flows quickly through it and receives little filtration. Therefore, contaminants that enter a karst aquifer are rapidly transported creating water quality problems. About 20% of the United States is underlain by karst landscapes and 40% of groundwater used for drinking comes from karst aquifers. It is imperative for our health and safety to protect karst landscapes. Continue reading at <https://www.comalconservation.org/caves--karst.html>

THE INTERNATIONAL YEAR OF CAVES AND KARST IN 2021 From the NATIONAL PARKS SERVICE

<https://www.nps.gov/articles/the-international-year-of-caves-and-karst.htm>

A Worldwide Celebration!

Two thousand and twenty-one is going to be a celebration year for caves and karst in our National Parks and around the world! Cave week will be especially big in 2021. Caves and related landforms like sinkholes, springs and sinking streams are collectively known as karst. Karst forms in areas worldwide where rocks naturally dissolve, If you live near limestone, marble, gypsum or rock salt you might be in karst. Karst is found throughout the US and is widespread in many eastern states such as Indiana, Missouri, Florida, Kentucky and Tennessee. For the International Year, people are organizing events around the world associated with caves and karst. Activities are expected to include festivals, special cave tours, video showings, social media, blog and web content, class room presentations, commemorative and historical events and much more.

Karst springs and watersheds supply 20% of the world's drinking water and are home to hundreds of rare species of animals. Caves have played a big role in understanding human past as everything from Lucy, our ancient Australopithecine relative to the Dead Sea Scrolls to vast numbers of Mayan artifacts came from inside caves.

Read more at <https://www.comalconservation.org/caves--karst.html>

VISIT CAVES CLOSE TO HOME

NATURAL BRIDGE CAVERNS <https://naturalbridgecaverns.com/>

Our Story

In March of 1960, Orion Knox Jr., Preston Knodell, Al Brandt and Joe Cantu, four college students from St. Mary's University in San Antonio, obtained permission to explore the area that is now Natural Bridge Caverns. The students were convinced that large underground passages existed under the amazing 60-foot limestone bridge. On their fourth expedition, Orion felt a cool draft from a rubble-filled crawlway. Such air currents often indicate the presence of additional rooms or passages.

The explorers made their way carefully climbing and crawling through two miles of vast cavern passage. After making this amazing discovery, they returned to the surface to tell

the landowners. The discoverers knew immediately what an astonishing find they had made and the land owners decided to develop the first 1/2 mile, the most spectacular part of the caverns, for the enjoyment of guests from around the world. That first 1/2 mile is now the Discovery Tour. Natural Bridge Caverns Discovery Tour was developed with two main goals in mind: preservation of the caverns' environment and comfort of its guests. The result is one of the world premier show caverns, and one of the most popular attractions in Texas.

Background Geology

Visitors to the caverns walk through different layers of limestone, a sedimentary rock. Geologists theorize that during the Cretaceous period, a warm, shallow sea covered much of Texas. Sediments and dead marine organisms collected on the ocean floor, compacted and formed the different limestone layers. Geologists give different names to the various layers, and visitors to Natural Bridge Caverns will find the Glen Rose and the Kainer (Edwards) layers. The Glen Rose, as the oldest rock layer, contains the lowermost chambers, while the Kainer forms the Natural Bridge.

Perhaps around 20 million years ago, a number of faults formed in Texas due to settling of the coastal regions. These movements created an extensive series of faults known as the Balcones Fault Zone. The eroded face of the Balcones Escarpment marks both the fault zone and the beginning of the Texas Hill Country. In addition to creating the faults, the tectonic stresses also created joints, or cracks in the rock. Underground water moving along the joints eventually carved the passages at Natural Bridge Caverns, one of the main sources of San Antonio fun.

NATURAL BRIDGE CAVERNS IS CELEBRATING THE 2021 International Year of Caves and Karst!

You may be thinking; what is karst? Why do caves matter? Hold on to your hats! 2021 is the International Year of Caves and Karst. Over the course of the year, Natural Bridge Caverns along with other industry partners will be supplying you with all the fun and astonishing facts. We are planning partnerships, presentations, fun events, contests, experiments and much much more. Our goal in 2021 will be to promote exploration, understanding and protection of our caves and karst landscapes. <https://www.youtube.com/watch?v=y6JsNNcTCVk>

BRACKEN CAVE

<https://www.batcon.org/our-work/protect-restore-landscapes/bracken-cave-preserve/>

Bracken Cave contains the largest single-species bat colony in the world, with an estimated 20 million *Tadarida brasiliensis*, or Mexican free-tailed bats. The nearly 1,500-acre preserve ensures human encroachment and artificial lighting remain away from the bats' roosting site. The preserve also protects important recharge zone for the Edwards Aquifer which supplies 90 percent of San Antonio's water supply and critical nesting habitat for the endangered migratory Golden-cheeked warbler. Staff and volunteers of Bat Conservation International (BCI) conduct evening guided tours between March and October to watch the hours-long dramatic departure of millions of bats.

<https://www.comalconservation.org/caves--karst.html>

And we found this very interesting website with some beautiful photos that you may want to visit. <https://caves.org/virtual/virtcave/karst/karst.html>

KIDS, KIDS, KIDS

If you have kids or grandkids, please visit the KIDS page on our website for a wide range of kid-appropriate Nature and Science based activities, videos and educational resources. We even can link you up to some spectacular videos everyone can enjoy. So, if you know some kids or maybe you're a kid at heart check it out at <https://www.comalconservation.org/for-kids.html> You won't be disappointed!

That's it for this month. There is much, much more on the CCCA website.

And we hope you will join us on May 11 to hear about how two nearby families saved their heritage ranches.

Stay safe, stay healthy, enjoy nature! See you next month.

Comal County Conservation Alliance

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

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