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ON THE COVER:

Using magazine covers from the past 75 years, our art team assembled this mosaic based on a photo by Larry Ditto.



26 75 Years of Texas Inspiration

Since 1942, we've shared 'the invigorating influence of the out-of-doors.'

by **Mary-Love Bigony**

34 Wildlife in Focus: A Photo Essay

In this photo contest, nature's the star.

42 Operation: Ponderosa

Can the Davis Mountains' majestic pines be saved?

by **Laylan Copelin**

TEXAS JUST GOT QUIETER.



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CONTENTS

22



- 8 **At Issue**
The Outdoor Magazine of Texas
- 10 **Mail Call**
- 11 **From the Editor**
- 12 **News**
First Day Hikes; Fish Habitats
- 14 **Park Pick**
Along the River at Blanco
- 15 **Wanderlist**
Lesser-Known Park Gems
- 16 **Wild Thing**
The Wily Coyote
- 18 **Flora Fact**
An Enchanted Rock Rarity
- 20 **Picture This**
Shoot the Moon
- 22 **Travel**
A Weekend with the Mayor of New Braunfels
- 48 **Legacy**
Orville Rice's Art of Nature
- 56 **Get Out**
Orienteering
- 58 **Parting Shot**

↑ **“BEWARE THE OSTRICH.**
IF HE COMES UP FOR SOME FEED, JUST GIVE HIM THE BAG.”
— NEW BRAUNFELS MAYOR BARRON CASTEEL,
TALKING ABOUT NATURAL BRIDGE WILDLIFE RANCH



PHOTO © WYMAN MEINZER



PHOTO © SONJA SOMMERFELD

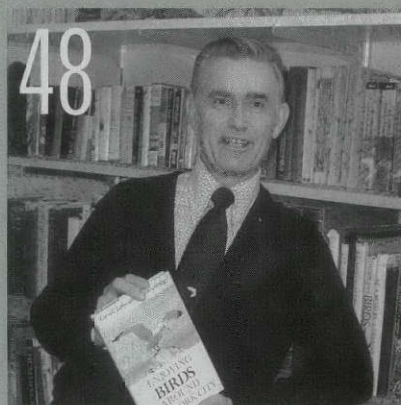


PHOTO COURTESY OF DINAH CHANCELLOR / FAMILY ARCHIVE

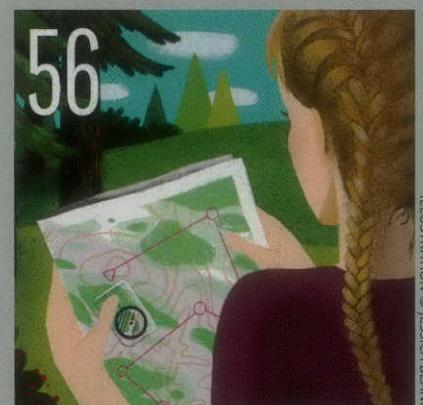



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THE OUTDOOR MAGAZINE OF TEXAS

IT'S LONG BEEN A STAPLE of Texas fishing and hunting camps, living rooms and waiting rooms, libraries and classrooms. It's usually not hard to spot — the dramatic scenery and imagery on the front and a small stack of well-thumbed pages within. The accompanying prose will sweep you right in and take you to places you wish you were or, perhaps just as likely, have never been.

Spanning 75 years and multiple generations, it has been a source of wonder to budding and expert outdoor enthusiasts alike, a badly needed balm and dose of home for those displaced from it, and an artesian well of information for anyone interested in the life, history and story of our home ground. If you are a hunter, camper, angler, birder, boater, kayaker, naturalist, rancher, steward, historian, citizen scientist, conservationist, mountain biker, photographer or anyone at all inclined toward anything outdoors, you have undoubtedly read it from cover to cover.

I am talking about, of course, what is in your hands now — *Texas Parks & Wildlife* magazine.

For me, I have my beloved late grandmother to thank for the introduction. A farm girl from over in Bell County, she loved nothing more than seeing her grandson embrace the outdoors and, when it was time to be indoors, absorb himself in the pages of *National Geographic*, *Audubon* and his favorite, *Texas Parks & Wildlife* magazine.

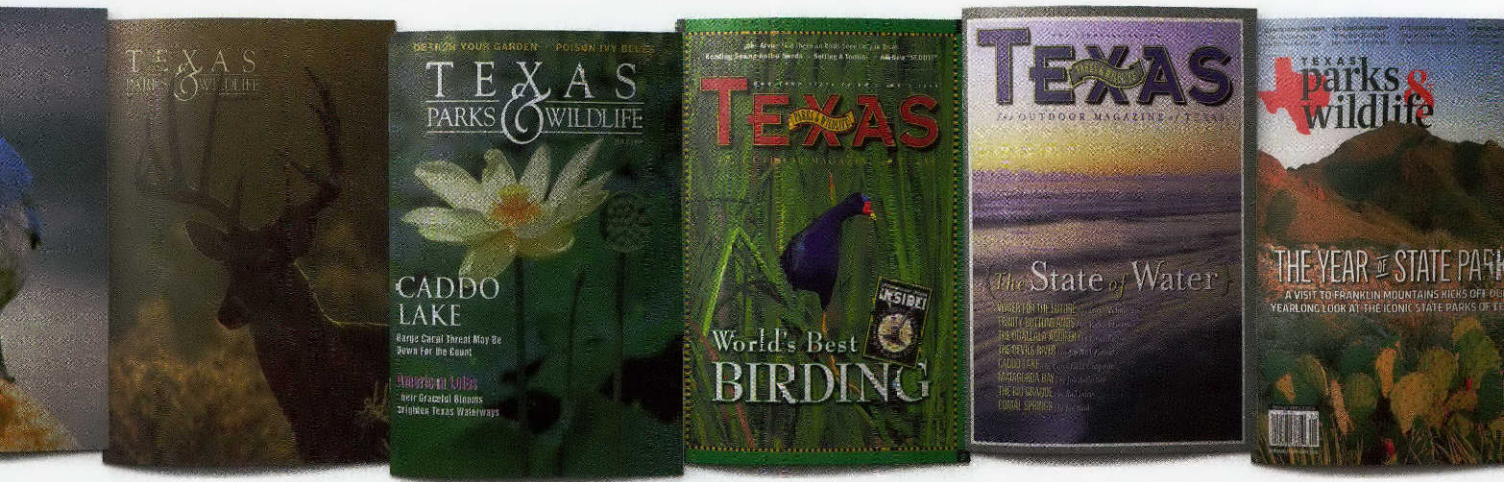
Around age 8 or 9, I started receiving her magazine copies in the mail. When that bulging manila envelope arrived with her telltale script on the outside, I'd rip it open and read the magazine from cover to cover. With its stunning photos of wild critters and far-flung places and great stories on state parks and outdoor adventures, I ate it up, word by word, picture by picture, article by article, again and again. Even today when I see the magazine grace my desk, the first thing I think of is my grandmother and how much she loved its photos and its prose.

My first two research papers, if you can call such things on junior high, were based in no small part on articles I had read from the *TF&W* magazine. One was about the perils of the imperiled ocelot, a cat my grandparents would tell me about from their trips to the wilds of deep South Texas. The other was on the flora of the Big Thicket, a seemingly inexhaustible array of plant life and forms from the ecological crossroads of Texas.

When I left Texas for school and for work, this magazine is what kept me connected to home. And even today, when I need something to pick me up and inspire me to do and see more across our fine state, I look no

TEXAS PARKS AND WILDLIFE DEPARTMENT MISSION STATEMENT:

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.



further than the pages of this magazine.

This year our eminently talented magazine team embarks upon its 75th anniversary of taking readers outside to discover Texas' abundant natural and cultural bounty and to learn about the important conservation issues confronting our home ground. As Mary-Love Bigony writes in an accompanying article on the magazine's fascinating origins and history, it is a milestone long in the making, achieved by an unwavering focus on sharing the best of Texas outdoors from tip to tip.

As has been its tradition and hallmark since its

inception, the *TPS:W* magazine team will continue to take our signature publication to new and different heights in storytelling. How does one improve upon a timeless classic, you may ask? We'll leave that to them, so read it and see!

Thanks for caring about our wild things and wild places. They need you now more than ever.

Carter Smith

EXECUTIVE DIRECTOR

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LEFT OFF LAKE LIST

How in the world could y'all possibly have made such a list of 10 fishing parks ("10 Parks to Catch a Whopper," October 2016) and not have Lake Tawakoni State Park on the list?

It is located on Lake Tawakoni, after all, which is the catfish capital of Texas. Surely this list was made by a Texan? Enjoy the magazine. Keep up the good work.

HOMER BUSCH
Wills Point

HARD TIMES FOR FAIRFIELD

I appreciate everything TPWD does for our state, and your magazine. However I would like to comment on a short writeup about Fairfield Lake State Park ("10 Parks to Catch a Whopper," October 2016).

Fairfield Lake State Park is a real treasure. However, the park no longer has the red drum prominence it once had. Yes, there are still catfish and bass caught from the lake but seldom red drum. The fish kills in years past have killed off most of the red drum, and the state has not stocked the lake since 2011. During the winter months prior to 2011 the lake was a busy place with many guides and private fishermen flocking to take aim at experiencing the rod-bending and drag-screaming red drum monsters. Nowadays the guides no longer book that lake, and private folks like myself seldom venture to the lake.

I do wish the state would consider

stocking Fairfield with red drum and work to return the lake to its prior status as the go-to lake for red drum in Texas. If not Fairfield, then please consider another power plant lake in the North Texas region.

EARL ATNIP
Plano

GRATEFUL FOR DR. DUKE

I am one of the people saved by Dr. Duke's flying emergency room ("The Hanging of Red Duke," October 2016). In October 2012 I had a ruptured aneurysm at work and was transported to an ancillary hospital. It was determined to send me to Houston's Memorial Hermann. They saved my life even though I have a little trouble. My husband actually saw "Red" Duke in the cafeteria while I was in the hospital for 20 days. I will be forever grateful for the treatment I received.

CYNTHIA MARTINEZ
Waelder

WRITE TO US

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HARMING THE REEF

Thank you for the article "Expanding the Flower Gardens" In the August/September 2016 issue. I think it is a great idea to build a shelter for aquatic life, but I don't think it is a good idea to let people go sightseeing in it.

There has been deterioration in reefs due to people using sunscreen that harms the reef. Also if people touch the coral, the oil from their hands will harm it. Sightseers could also touch the wildlife and potentially harm them.

GARRETT HACKER
Plano

NO ROUND-TRIP FOR PIGEONS

I have kept a particular issue of *Texas Parks & Wildlife* for a long time because I didn't want to ruin the spirit of a well-written story, but I think a correction of a statement should be noted. It was in the November 2015 issue, the article on carrier pigeons.

It stated, "In the span of a couple of hours, a pigeon could deliver the report and return again, saving the busy oilman valuable time in the field."

I raised and flew homing pigeons for many years as a young man, and the part of the story I found to be in error was the statement about the birds being able to make a "round trip."

You can't whisper in their ear, "Go to 121 Main St. in Waxahachie," and expect them to go there. Wherever you release them, they only know how to go back home.

LARRY BORNE
Fort Worth

GOVERNOR OF TEXAS
Greg Abbott

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Texas Parks & Wildlife magazine (ISSN 0040-4586) is published monthly with combined issues in January/February and August/September by Texas Parks and Wildlife Department, 4200 Smith School Road, Austin, Texas 78744. The inclusion of advertising is considered a service to subscribers and is not an endorsement of products or concurrence with advertising claims. Copyright © 2016 by Texas Parks and Wildlife Department. No part of the contents of this magazine may be reproduced by any means without the permission of *Texas Parks & Wildlife* magazine.

Subscription rate: \$18/year; foreign subscription rate: \$2795/year. **Postmaster:** If undeliverable, please send notice by form 3579 to *Texas Parks & Wildlife* magazine, P.O. Box 42103, Palm Coast, FL 32142-103. Periodicals postage paid at Austin, Texas, with additional mailing offices. **Subscriber:** If the Postal Service alerts us that your magazine is undeliverable, we have no further obligation unless we receive a corrected address within one year.

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FROM THE EDITOR

HAPPY BIRTHDAY TO US! Hold on to your hats as we kick off a year of celebration, culminating in December with the 75th anniversary of everyone's favorite magazine about the Texas outdoors (and the longest-running magazine in Texas).

Today's *Texas Parks & Wildlife* magazine team feels blessed to guide this publication into this landmark year. In one corner of our office stands a tall bookcase filled with dusty tomes. Each one of those volumes contains a year of magazine issues — the oldest so fragile and yellowed we handle them with reverence like ancient icons. We've spent countless hours with those treasured books spread across our conference table, tagging our favorite bits, hooting over pop culture changes and marveling at how much has stayed the same.

We've added some special love to this issue. While at first glance, the wraparound cover appears to be two bucks in silhouette, a closer look reveals that the entire image is constructed of *Texas Parks & Wildlife* magazine covers. When our art team unveiled their second effort — a chronologically arranged view of every cover — we decided to make that poster our centerfold.

Who better to help us communicate the rich magazine history in this celebratory issue than two longtime staffers who raised the standards of this publication to the levels we work hard to maintain today? Former Managing Editor Mary-Love Bigony (27 years here) tells us the story of the believers who took a bold step by starting this magazine in 1942 to keep America a "pleasanter" place to live when the soldiers came home. Former Editor David Baxter (21 years) looks into the life of the magazine's beloved cover artist, Orville Rice.

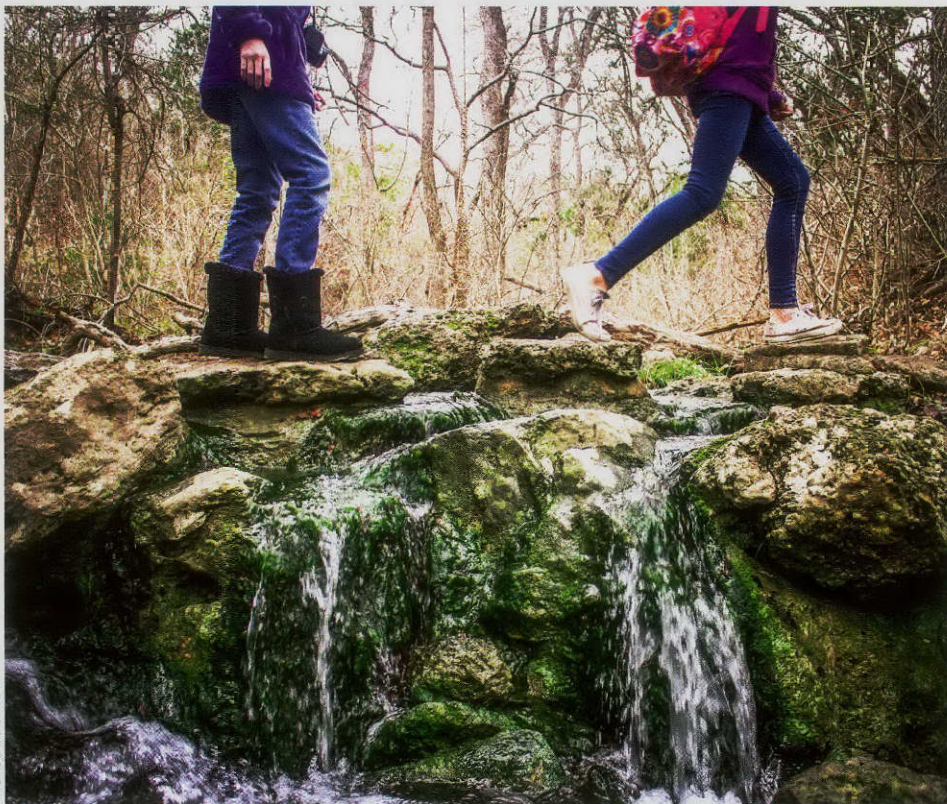
Our 75th anniversary fun will continue all year long, including a special scrapbook with bits of nostalgic fun from every era of this historic publication. We've got a major surprise planned for the big December 2017 issue — we're keeping it a secret, but rest assured, it's like nothing we've ever done before! And don't forget to watch the special magazine episode on the *Texas Parks & Wildlife* PBS show the week of February 5-11.

We can't kick off our big anniversary year without expressing our gratitude to all who assist our dedicated team each and every day: all our support at TPWD, our talented freelance writers and photographers, our generous advertisers and, of course — best of all — the grandest audience, our loyal readers. Thank you!



Louie Bond, Editor

Start It Off Right With a New Year's Hike



PHOTOS BY TPWD



IT'S EASY TO GET THOSE "get healthier" resolutions off to a good start with a fun First Day Hike in a Texas state park. It's the seventh year for Texas to participate in the growing program, a national effort to get more Americans outside.

Last year, 80 Texas state parks hosted a total of 116 First Day Hike events, with 3,048 participants covering more than 6,500 miles as they walked, ran, paddled, pedaled and swam across parks all over the state. Events include nature and history hikes, bike rides, runs, a Polar Plunge (at Balmorhea), midnight hikes on

New Year's Eve, night hikes, birding hikes, hikes for tots, hikes with dogs, scavenger hunt and geocache hikes and a trail ride.

"What a tremendous statement it was for folks all over to come forward and say with their actions that getting outside and using their parks is a priority for them," says Brent Leisure, state parks director, of last year's turnout. "First Day Hikes has solidified as a signature event that is gaining momentum as a New Year's Day tradition in Texas."

To find a First Day Hike near you, visit texasstateparks.org/firstdayhikes. ★

In what has become an annual tradition, dozens of Texas state parks will kick off the new year with First Day Hikes.

RADIO

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ON TV

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JAN. 1-7:

Tracking bat disease; wildlife watchdogs; honoring an angler.

JAN. 8-14:

Moving bees; Aruncus cane control; wind energy and wildlife.

JAN. 15-21:

Bee searcher; wind energy on the coast; Blue Mountain wildflowers.

JAN. 22-28:

Dundee fish hatchery; squirrel hunting; reclaiming the Colorado River.

JAN. 29-FEB. 4:

Hiking dogs; mobile storytellers; protecting paddlefish.

FEB. 5-11:

75 years of the outdoor magazine of Texas; cover artist; outdoor photographs.

FEB. 12-18:

Controlled burns; blue sucker survey; vast vistas.

FEB. 19-25:

Kangaroo rats; LEJ's legacy; state park ambassadors; Galveston Island.

FEB. 26-MARCH 4:

Bobcats in the city; Harkins Ranch refuges; coastal birds.





PHOTO BY TPWD

Better Fishing in Brazos Basins

THANKS TO A COLLABORATION between TPWD, Brazos River Authority and others, new enhancements to improve habitat for a variety of fish species are now in place at Lake Granbury, Possum Kingdom Lake and Proctor Lake. Improvements like “crappie condos” are designed to provide better fishing opportunities; artificial structures made of recycled plastics and natural structures made of recycled bamboo and Christmas trees have been put in place.

“These habitat enhancement projects will offer improved areas for spawning and feeding and provide cover from predators to help fish grow to maturity,” says Brian Van Zee of TPWD’s inland fisheries.

Anglers can find more information about these habitat projects including GPS coordinates and maps depicting the locations of the projects, at www.tpwd.texas.gov/fishattractor. ★

THE STAGE IS SET FOR WINTER RESIDENTS

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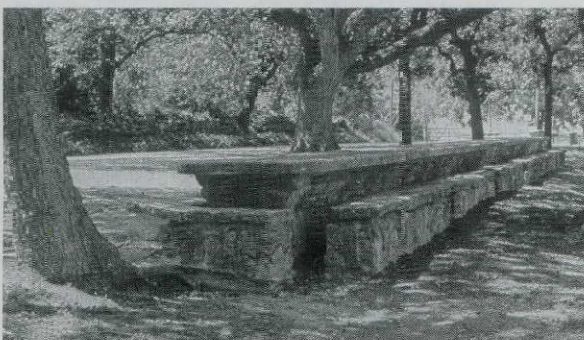
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PHOTOS FROM TOP © CAROLYN WHITESIDE, COURTESY OF TPWD ARCHIVES



ALONG THE RIVER

One of the state's earliest parks, Blanco beckons with historic CCC structures.

BY KATE BOYSEN

VISITORS FLOCK TO BLANCO STATE PARK in the warm summer months to enjoy the cool, spring-fed waters, but what is there to do once the temperatures drop? The trees might be bare, the water chilly and the air crisp, but you'll find plenty to explore beyond the banks of the Blanco during the winter months.

Pictured from top: *The Blanco River cascades over a dam built by the Civilian Conservation Corps. The Corps built Blanco State Park's roads, bridges, picnic tables, pavilion and other facilities from 1933 to 1934.*

Blanco State Park was just the seventh state park in Texas. Meandering through the 105-acre park, the river showcases limestone terraces, majestic bald cypress trees and our state's Civilian Conservation Corps (CCC) history.

Blanco was one of the first parks in Texas to receive a company of CCC enrollees. Company 854 built the park's roads, two dams, bridges, campsites and other facilities in just 11 short months from 1933 to 1934. The park designers took their inspiration from the landscape. Limestone helps the structures blend in with the surrounding area and gives the impression that they might be growing from the river's rocky banks.

The central built feature of the park is the open-air pavilion. The native stone and timbers make the building look right at home on the hillside. The pavilion can be rented for events or reunions throughout the year. Below the pavilion is one of the CCC-built dams that creates cascading falls and summer water fun. Visitors enjoy other features throughout the park, including stone picnic tables, benches and grills.

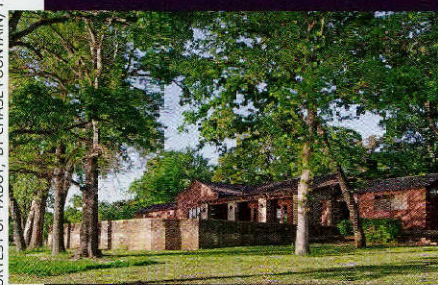
Explore the park further and you will find two signature CCC designs unique to Blanco: the stone chair and the long table. The stone chair is a hidden gem that originally commanded expansive views over the park and river. Today, you can take a guided hike with a park ranger to discover the seat hidden by oaks, junipers and cedar elms. The long table sits on the west end of the park in a grove of pecan trees with a great view of the river and limestone terraces. The table is an impressive 70 feet long, making it the longest CCC-built stone table in Texas. Reserve the table for your next large group event.

When the winter doldrums begin, remember an adventure awaits you at Blanco State Park. The park sits in the Texas Hill Country, only an hour's drive from San Antonio and Austin. Join a park ranger on a hike or explore the CCC-built structures on your own. For more information, call (830) 833-4333 or go to tpwd.texas.gov/blanco. ★

BEST-KEPT SECRETS

Our Year of State Parks in 2016 featured some of Texas' most iconic properties, but sometimes these popular parks are crowded. Here are a handful of rames that might be less familiar, but their natural beauty makes them hidden gems

BY EMILY MOSKAL



PHOTOS FROM TOP: © LAURENCE PARENT, COURTESY OF TXDOT; BY CHASE FOUNTAIN/TPWD; BY BRYAN FRAZIER/TPWD; BY TPWD

CLEBURNE STATE PARK

A scenic 3-mile roadway winds around the serene, spring-fed, 116-acre lake with a beautiful 1930s-era stone masonry dam and bridge. Close to Fort Worth, Dinosaur Valley State Park and Fossil Rim Wildlife Center, the park offers geocaching and 5.5 miles of mountain biking.

LAKE BOB SANDLIN STATE PARK

Connect with the pioneer lifestyle by attending Dutch oven cooking classes or visiting the graves of Fort Sherman's settlers. The lighted pier is a nighttime hot spot for crappie and bass. Bald eagles winter on the lake; every fall, watch the changing colors of dogwood, redbud and maple trees.

BONHAM STATE PARK

This park near the Oklahoma border features a no-wake lake and hand-built local limestone and eastern red cedar structures: a dance terrace, picnic tables, water fountains and barbecue pits. Nearby attractions include Eisenhower State Park and Sam Bell Maxey House State Historic Site.

FORT PARKER STATE PARK

An hour east of Waco, this state park is named after nearby Fort Parker, a historic settlement (now a replica) where Cynthia Ann Parker was kidnapped. Rent a canoe to experience otherworldly sunsets over Fort Parker Lake, formed by a CCC-crafted dam across the Navasota River.

BARTON WARNOCK VISITOR CENTER

Before you begin your excursion into Big Bend Ranch State Park, stop here to give desert plants a name. There's a self-guided 2-acre desert garden and a nearly 100-acre environmental education center where you can learn about prehistoric art painting and night photography.

PRAIRIE WOLF

Our dogs' wild cousin, the coyote, is a master of survival and adaptability.

BY EVELYN MORENO

COMMON NAME

Coyote

SCIENTIFIC NAME

Canis latrans

HABITAT

Open plains in the west and brushy areas in the east

DIET

Coyotes eat almost anything: insects, rodents, rabbits, fish, snakes and fruit.

DID YOU KNOW?

Coyotes are great swimmers, allowing them to escape predators through the water and colonize islands.



PHOTO © DAVID SATTERWHITE

REMEMBER THE OLD Roadrunner cartoon, where Wile E. Coyote constantly tried to capture his speedy nemesis? I laughed at their antics, but I always felt bad for the coyote as he failed time after time. My parents assured me that coyotes manage very well in the real world and aren't subject to constant torment.

Coyotes once primarily lived in western prairies and deserts but now roam forests, mountains and even busy cities. In 1804, Lewis and Clark encountered the species in present-day South Dakota. Unsure of what it was, they named it "prairie wolf." The name "coyote" derived from the Aztec word *coyotl*, used by Spanish settlers when they arrived in America. Its Latin name, *Canis latrans*, means "barking dog."

Coyotes are quite the survivors. They've lived in North America for more than a million years; in that time, they learned to adapt to changing environments and overcame many efforts aimed at their elimination. In Texas, coyotes have slowly filled the void left by wolves, with more existing here than in any other state.

For years, coyotes have been the center of controversy. Sheep growers and hunters do not appreciate the threat they pose to their flocks or to wild game. In an effort to eradicate this threat, more than 17,000 coyotes were killed in Texas in 2014. However, their wariness and adaptability make them as difficult to bring down as the roadrunner in the cartoon.

Actually, their primary food source is neither sheep nor deer. Coyotes

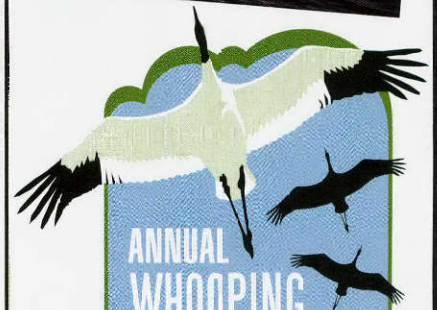
feed on mice, squirrels, rabbits, groundhogs, frogs, lizards, snakes, fruit and more. Unlike Wile E. Coyote, who would devise hundreds of plans to catch Roadrunner, coyotes can be lazy, usually not interested in working too hard to get their meals. They also prefer to use natural caves or old animal dens for a home rather than digging up their own den.

Similar in size to a German shepherd, coyotes are 32 to 37 inches long not including tail, and weigh 25 to 50 pounds. They can live for as long as 14 years, although many don't make it past four years of age. Litter size varies from five to six pups to as high as 12 to 16 pups.

Coyotes form strong family groups and are considered monogamous, meaning pairs remain together for numerous years. When a coyote pup leaves the family it typically relocates about five to 10 miles away, but occasionally one will stay behind to help raise a new litter of pups.

With the exception of Wile E. Coyote, coyotes are extremely intelligent animals with keen senses of hearing, sight and smell. Their sense of survival and opportunistic nature have allowed them to thrive in a rapidly changing environment. ★

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ROCK LOVERS

Ancient rock quillwort grows in Enchanted Rock's vernal pools. **BY ANNA STRONG**

IF YOU'VE EVER EXPLORED ENCHANTED ROCK, you've seen puddles in the granite called vernal pools. Inside these little magical microhabitats grows a grassy-looking plant called rock quillwort. One-quarter of the world's population of this plant can be found on the Hill Country's iconic pink domes.



PHOTOS BY TPWD

Plants in the quillwort family are most closely related to the spikemosses and clubmosses. Like ferns, these groups reproduce by spores and spore-bearing structures, called sporangia. Quillworts may have first appeared in the Jurassic Period, but they likely evolved from plants in the much earlier Devonian Period (the Age of Fish), some 420 million to 350 million years ago. These very early forms of quillworts were tree-like and were a major part of the plant matter in coal swamps, the ecosystem that later provided us with coal.

The early appearance of quillwort likely resulted in its present worldwide distribution. By the Jurassic, the supercontinent Pangaea was starting to break apart into what would eventually become the seven continents we know today. It is likely that early quillwort was distributed throughout Pangaea. As landmasses broke away, each part of the large mass retained a quillwort population.

COMMON NAME

Rock quillwort

SCIENTIFIC NAME

Isoetes lithophila

SIZE

Up to 4.5 inches tall

DID YOU KNOW?

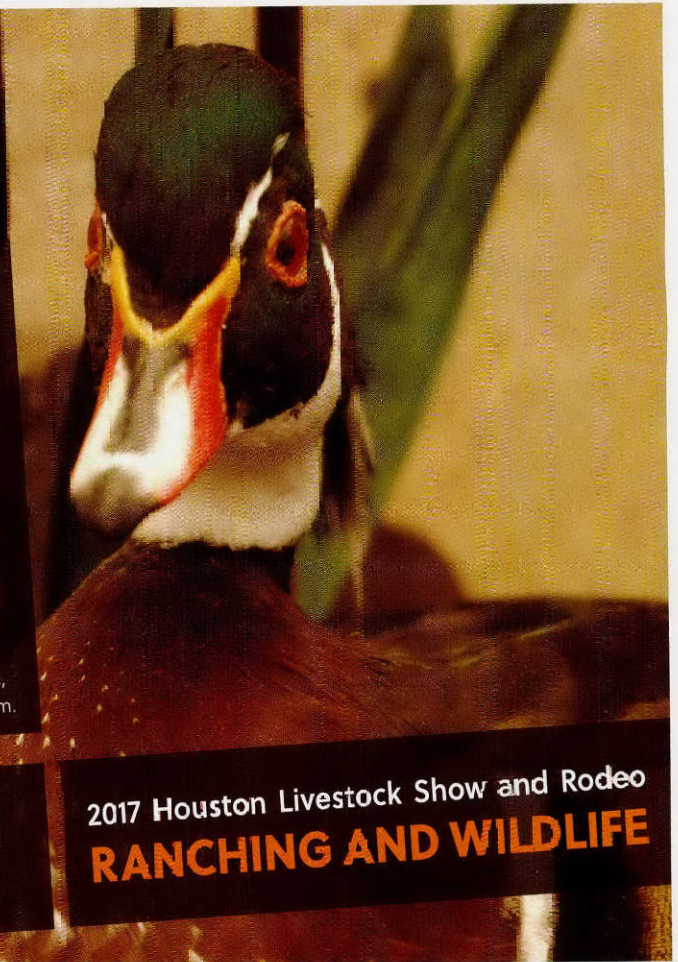
Vernal pools contain several tiny water-dwelling species that, like rock quillwort, are generally absent from the drier surrounding landscape


The quillwort we see today is much smaller than its coal-forming relatives. Most quillwort is confused with blades of grass or overlooked entirely. Their simple appearance consists of above-ground leaves with below-ground sporangia and roots. In fact, most of the identifying characteristics reside underground in the sporangia. Some plants require magnification to definitively identify them.

Rock quillwort (*Isoetes lithophilic*) is confined to those seasonal vernal pools of water on top of granite and gneiss outcrops in the Llano Uplift. The species name *lithophila* translates to "stone" (*litho*) "loving" (*phil*). Rock quillwort was first collected in Texas in 1914 and subsequently named in 1922. It is known from only about 10 populations in four counties in Texas, making it one of the rarer plants in the state.

Although rock quillwort produces spores in the late winter and spring, it can also do so after heavy rainfall at other times of the year. The species is drought deciduous and dies back when the small pools of water dry up. When the plant is present, it is typically the most abundant one, so it's likely not very tolerant of competition. Although little is known about its ability to disperse, other quillworts are thought to disperse by wind or water.

Much is still to be learned about the biology of this plant. At this time, most of the work with rock quillwort involves searching for new populations and revisiting known populations. Hopefully, these efforts will help maintain this unassuming and tenacious plant for another few million years. ★






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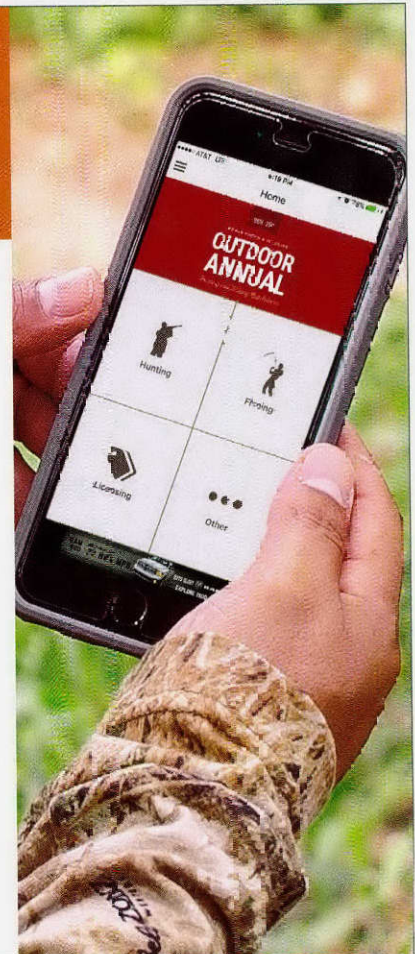
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Moonrise at the Davis Mountains.

"The moon is a friend for the lonesome to talk to."

— Carl Sandburg

SHOOT THE MOON

Lunar photography provides its own set of special challenges.

BY EARL NOTTINGHAM

THROUGHOUT THE AGES, a rising full moon has captivated lovers, poets and artists as the epitome of romance — or a harbinger of evil. Whether or not it's true that things get crazy during a full moon, it is a certainty that a full moon will draw photographers out (and will often drive them crazy from not getting the photo they envisioned of that luminous orb).

Typically, there are two general categories to fall into when photographing the moon. The first is to simply take a close-up photo of the moon itself — filling the frame and showing the details and texture of the surface. The second (and more of a challenge) is to include the moon as part of an overall landscape photograph that includes terrestrial objects in the foreground.

Let's start with the first situation when the objective is just to get a good detailed close-up of the moon. Although serious lunar photography is typically done via a camera adapted to a telescope, it is

possible to get detailed images with a typical DSLR or mirrorless digital camera. Here are the basic ingredients needed:

- A clear and dark night sky with full moon.
- Camera with manual exposure settings.
- Tripod.
- Long lens (300-600mm range).
- Cable release or delayed shutter.

One of the biggest disappointments of moon photography is that the moon doesn't appear as big in the final photograph as was expected. Although a rising moon appears large to the human eye, it still needs quite a bit of magnification to fill a camera frame. Even with a 600mm focal length equivalent lens, you still may need to crop the image. A byproduct of a long lens's magnification is vibration — hence the need for a tripod and cable release or delayed shutter.

Another disappointment comes when trying to properly expose for the moon. What often results is a white blob against a black sky, which usually happens when using automatic or programmed exposure modes on most cameras. The key is to set the shutter speed and f/stop independently. A good rule of thumb and starting point for exposure is to select a shutter speed that is equivalent (or close) to your ISO and then set the aperture to f/11. For example, with an ISO setting of 125 you would set your shutter speed at 1/125th of a second at f/11. With ISO 400 it would be 1/400th at f/11. From those starting points you can vary your exposures on either side of that initial setting (called bracketing). Because of the moon's intensity, there is really no reason to shoot at high ISOs. A range of ISO 100-200 should be plenty.

Whereas photographing the moon against a black night sky is mostly a technical exercise, photographing it closer to twilight as part of an earthly landscape adds the artistic/romantic components. Whether the foreground includes rivers, trees or mountains, these elements give the viewer the sense of depth and space — as well as a sense of awe.

The ingredients for a good full moon



PHOTO COURTESY OF DR. JOHN MANNING

photo in a landscape setting are similar to the previous setup:

- Camera with manual settings.
- Lens with focal length greater than 100mm.
- Tripod.
- Cable release or delayed shutter.

You will notice that the lens length in this situation is not as long as when trying to get a close-up of the moon's sphere. However, it is a compromise between trying to magnify the moon as much as possible and including as much of the landscape as needed. It is very easy to render a rising moon as just a small dot, especially when using a wide-angle or even a normal focal-length lens. A focal length of 100mm is a good starting point, but longer is better.

The key to a great image with a rising moon is the proper ratio of exposure between the moon's luminance and that of the landscape it is rising above. The goal is that sweet spot where the moon's details can be seen as well as those of the surrounding area.

Too often we may get a good exposure of the moon but the land has gone black, yielding only a silhouette. Generally, the day immediately preceding the full moon will give just enough ambient daylight to balance with the luminosity of the rising moon. There are only a few minutes of time to achieve this balance. You may find that on the day of the actual full moon the surroundings have gone too dark relative to the moon. But all is not lost. This is the prime time for shooting urban settings with city lights against the moon. ★

Please send questions and comments to Earl at earl.nottingham@tpwd.texas.gov. For more tips on outdoor photography, visit the magazine's photography page at www.tpwmagazine.com/photography.

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PHOTO BY CHASE FOUNTAIN / TPWD

A WEEKEND WITH THE MAYOR

BY MELISSA GASKILL

Top city official takes us to his family's favorite New Braunfels destinations.



New Braunfels Mayor Barron Casteel meets me at the Landa Park Golf Course clubhouse on a sunny day. A partner at the law practice of Casteel & Casteel, he belongs to the New Braunfels Chamber of Commerce Blue Coats and the Elks Lodge and serves on the Wurstfest board. Casteel, wife Michele and their sons James Carter, 12, and Hudson, 7, play sports, camp, hunt, fish, float the river, ride bikes and otherwise take full advantage of outdoor life in this pleasant burg.

I came for a visit so Casteel could show me how that's done, New Braunfels style.

Like mine, many visits to New Braunfels start at Landa Park, which turned 80 last year. The math takes you back to 1936 and the Great Depression, Casteel points out, yet despite those hard times the community passed a bond election to buy the parkland, which had been purchased in 1860 by merchant Joseph Landa. Their investment looks very wise today — these 128 acres take in Comal Springs

— seven large and dozens of smaller springs that together form the Comal River, one of the country's shortest rivers at about 2 miles — as well as a swimming pool filled by the springs, picnic facilities, giant oak trees, trails, a miniature train, paddleboats, an arboretum and the aforementioned golf course.

Landa Park may be best known, however, for “toobing” — floating downstream on an inflatable tube. Landa Falls, an outfitter in the park claims to offer the longest float on the Comal, the Casteel

AUSTIN
45 minutes

DALLAS
4 hours

EL PASO
7.5 hours

SAN ANTONIO
30 minutes

BROWNSVILLE
4.5 hours

LUBBOCK
6 hours

family's favorite. It takes a couple of hours to float to the Riverbahn exit, in the Schlitterbahn complex, where air-conditioned shuttle buses pick up toobers to return them to Landa Falls.

As a kid, Casteel floated mostly on the Guadalupe — whose cold waters, he recalls, “lift you right out of your tube” — to his family's home near Lake Dunlap, south of Interstate 35.

“That float took about three hours, and when we finished, Dad would have a barbecue going for us,” he recalls. “Rivers in this community obviously were a big part of my family life. The upper Guadalupe is still my favorite place to tube. It has a lot of small rapids, waterfalls

Lake spillway for the first time, peaking at a rate of roughly 67,000 cubic feet per second — far exceeding the river's typical 350 cubic feet per second. The water flowed for six weeks, carrying away enough debris to cover a football field 30 feet high and creating a gorge 45 feet deep and more than a mile long out of 109-million-year-old Glen Rose limestone. Casteel recalls walking in it once the waters receded, amazed at the transformation.

The Gorge Preservation Society formed and began offering guided tours, showing people tracks of an Acrocanthosaurus (an early Cretaceous-era predator dinosaur),

mayor's family is Christmas at the Caverns, which includes a Christmas village, a maze and hayrides on the grounds and caroling inside the caverns. Year-round guided tours wind about three-quarters of a mile and 180 feet deep, through several large chambers and impressive formations. No one even knew the caverns existed until college spelunkers discovered them in 1960.

Near the caverns, Bracken Cave boasts the world's largest concentration of mammals — female Mexican free-tailed bats that arrive in March to raise their babies. They emerge every night to feed on insects throughout the summer.



FEATURED ATTRACTIONS (LEFT - RIGHT):

- ★ Mayor Barron Casteel on the banks of the Comal River
- ★ Comal County Courthouse
- ★ The Gorge below Canyon Lake
- ★ The Landa Park miniature train

and cliffs, and the water just dances across the rocks.”

The mayor also grew up spending time at his grandparents' place along the Guadalupe below Canyon Lake, created in the 1960s to control flooding. In 2002, he drove a four-wheel-drive Suburban across what was nothing more than a small creek at the time but became a raging torrent a few weeks later. An estimated 34 inches of rain in one week sent water over the Canyon

springs, waterfalls and pools occupied by fish and tadpoles.

The Gorge also revealed an unmistakable crack in the earth, the actual Balcones Fault. Geodes sparkle in the rock among fossils from distant eras: bivalves, gastropod snails, worm tubes, sea urchins and foraminifera (small, single-celled organisms that still occupy our planet).

Two nearby spots and favorites with the Casteel family, Natural Bridge Caverns and Natural Bridge Wildlife Ranch, belong to longtime locals. Self-driving tours through the 400-acre wildlife ranch include bags of feed, guaranteeing up-close encounters with native and exotic residents such as gemsbok antelope, elk, wildebeest and zebra.

“Beware the ostrich,” Casteel warns. “If he comes up for some feed, just give him the bag.”

An annual tradition for the

“They're great pest control. Without them, being outside would not be as pleasant,” Casteel points out.

Bat Conservation International now owns the cave and 660-plus acres of land surrounding it, offering tours to watch the nightly emergence. Bats fly out of the sinkhole in ever-increasing numbers, eventually forming a swirling tornado of blurred gray forms. The vortex splits into streams stretching like plumes of smoke into the darkening sky.

“The tour is very impressive,” Casteel says. “They do a great job of educating the community about the significance of the bats.” In addition to their role as natural pest control, bats play vital roles in agriculture, plant pollination and seed spreading, but they face serious threats, including loss of caves that don't enjoy protection like this one.

New Braunfels residents enjoy

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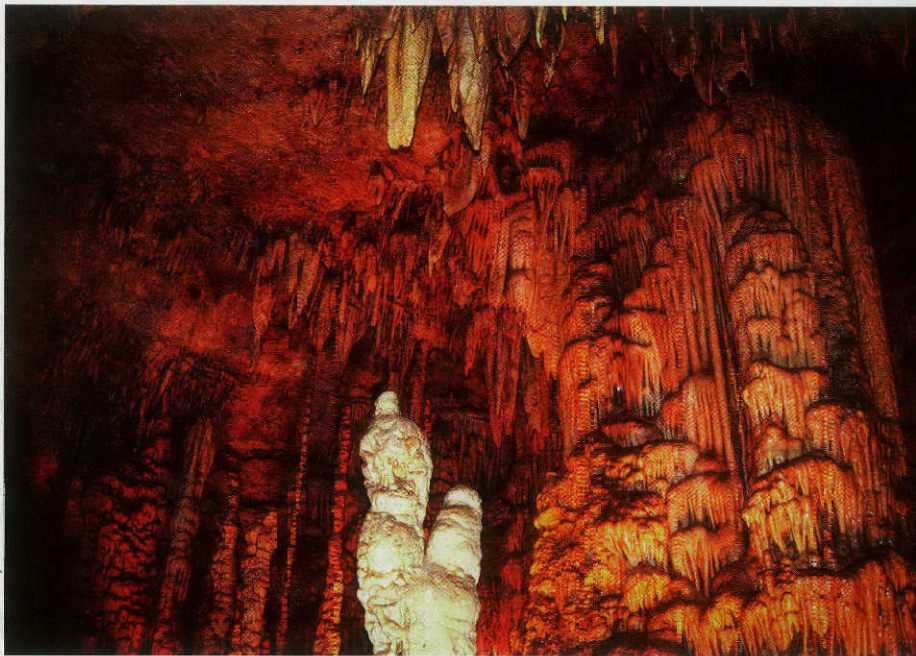


PHOTO BY CHASE FOUNTAIN / TPWD



Above: Cave formations dazzle visitors at Natural Bridge Caverns. The old post office now houses McAdoo's Seafood Company serving Creole and Cajun specialties. **Opposite:** The 1887 Faust Street Bridge, closed to cars, offers up-close views of the Guadalupe River and serves as a city park.

these far-flung adventures, but also love their historic downtown. A walking tour smartphone app delivers location-specific information about historic landmarks such as the oldest German bakery in Texas, homes from the 1800s and an 1890 railroad depot, as well as a series of contemporary murals that celebrate the lives and culture of the area's first settlers.

One of those buildings, the circa-1915 post office, now houses McAdoo's Seafood Company. Its

beautiful renovation preserves high ceilings, wood and marble. Casteel admits to using the promise of lunch here to lure his boys to Mass at the Catholic church less than two blocks away. The menu of Texas Creole favorites and authentic Cajun specialties — étouffée, gumbo, shrimp and cheese grits, Cajun enchiladas and fresh fish — makes for a powerful bribe, as does the New Orleans-style courtyard.

Mayors (and even dads) need a break now and then, and Casteel likes to go

MORE INFO:

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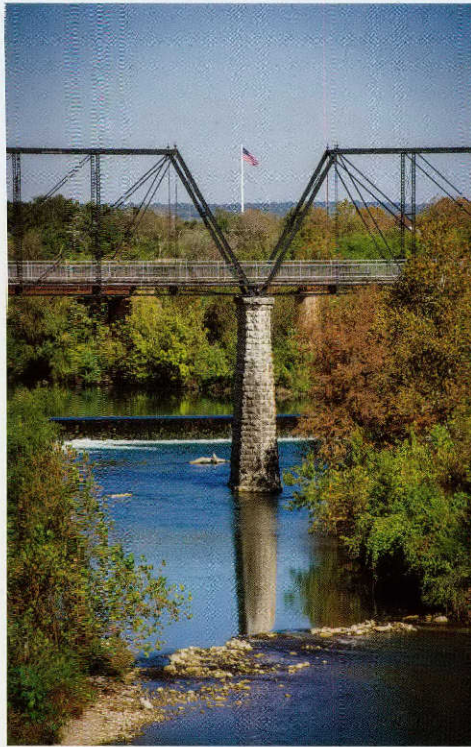


PHOTO BY CHASE FOUNTAIN/TPWD

to Phoenix Saloon for his. This casual chili parlor in the 1871 Gebhardt Chili Powder building downtown was reportedly the first bar in Texas to serve women. Today, everyone enjoys live music a wide selection of beers on tap and chili made with hunks of sirloin and, of course, no beans. Casteel calls this the best chili there is, but warns that it carries a kick.

At the nearby New Braunfels Farmer's Market, held on Saturdays year-round, Casteel says you can get just about anything you want. More than 60 local farmers, ranchers restaurants and artists pack the covered stalls with baked goods, meat, produce, cheese and more — plus there's live music.

This town's first residents arrived with Prince Carl of Solms-Braunfels, Germany, in 1845. Downtown's streets retain the original layout, and a distinctly European main plaza continues to serve as the center of celebrations. It sports a fountain cast in 1896 by J.L. Mott Iron Works of New York, with a curb added to keep folks from watering their horses in it. In the 1990s, Casteel reports, a driver lost control of his car and crashed into the fountain. Robinson Iron of Alexander City, Alabama, restored the landmark, and the community celebrated with

a big "Welcome Home" party in November 2004. Drought forced city officials to turn off the water in 2012, but they happily turned it back on in June 2015. The local Parks Foundation receives coins tossed into the water.

Our last stop is the 1887 Faust Street Bridge over the Guadalupe near where the Camino Real once crossed, the only multiple-span Whipple truss bridge still surviving at its original site in Texas. We walk on large, rough-hewn timbers beneath impressive iron Whipple trusses, where a row of benches offers spots to rest and soak up beautiful views of the river flowing below. The bridge closed to traffic in 1978, and the city took ownership in 1998, the mayor explains, over the objections of some who thought it would prove a liability. Now a city park, it can be rented for events or just enjoyed as a pleasant place to walk or ride bicycles, which the mayor has done with his boys.

"A beautiful part of being a resident of New Braunfels is not only enjoying it all, but seeing all the other people who come to enjoy it, too," Casteel says as he heads back to his day job.

If you needed an invitation to visit now you have one from the mayor. ✪

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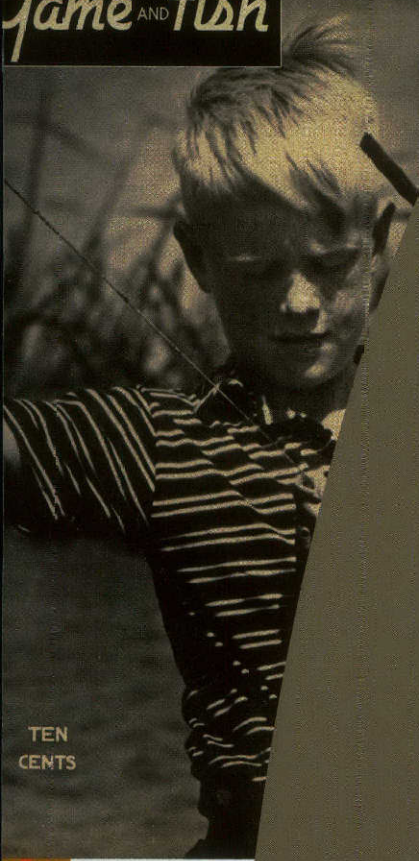
Big Bend Park Soon a Refuge

By Missie B. Tolbert
Special Services, National Park Service
Big Bend National Park, Texas
Big Bend National Park, Texas, is to be designated as a national monument. The decision is the result of a long and arduous process. The National Park Service has completed the preliminary study which will determine the boundaries of the monument. The monument will include the Big Bend National Monument, the Big Bend National Monument, and the Big Bend National Monument. The monument will include the Big Bend National Monument, the Big Bend National Monument, and the Big Bend National Monument. The monument will include the Big Bend National Monument, the Big Bend National Monument, and the Big Bend National Monument.



TEXAS Game AND Fish

MAY 19

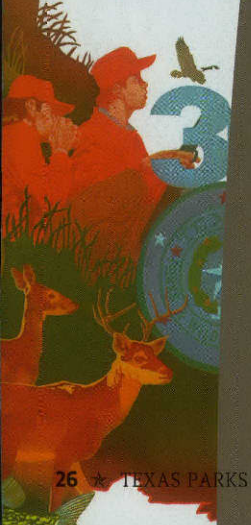


TEN
CENTS



TEXAS GAME AND FISH

TEXAS PARKS & WILDLIFE



Anxiety and uncertainty gripped Texans in 1942. Thousands of families waved tearful goodbyes to fathers, brothers, husbands and sons who were among the three-quarters of a million Texans who served in World War II. On the home front, rationing was a way of life, with stamp books required to purchase meat, sugar, coffee, shoes, auto parts and gasoline. Hard times.

In Austin, executives of the Game, Fish and Oyster Commission decided to publish a monthly magazine and sell it by subscription: 50 cents a year for Texas residents and \$1 for out of state. The first issue of *Texas Game and Fish* magazine hit the mailboxes of 6,422 subscribers in December 1942. A color photo of a hunting dog graced the cover; black-and-white photos illustrated the articles inside.

Executive Secretary William J. Tucker's editorial in the premier issue expressed optimism and set goals for upcoming issues. "One of the aims of *Texas Game and Fish* during the war period shall be to inspire in all of us the traditional love of Texans for hunting, fishing and nature," Tucker wrote. "After the harshness, brutalities and sacrifices of the present conflict the Texas man and womanhood that has succeeded in winning the war should return to a pleasanter place in which to live, with the invigorating influence of the cut-of-doors doing its full share to cleanse their spirits and temper their character."

Seventy-five years later that magazine, now *Texas Parks & Wildlife*, continues to offer readers ways to enjoy "the invigorating influence of the out-of-doors." Hiking, birding, mountain biking and profiles of Texas state parks join hunting and fishing articles on these pages in modern times.

75 years

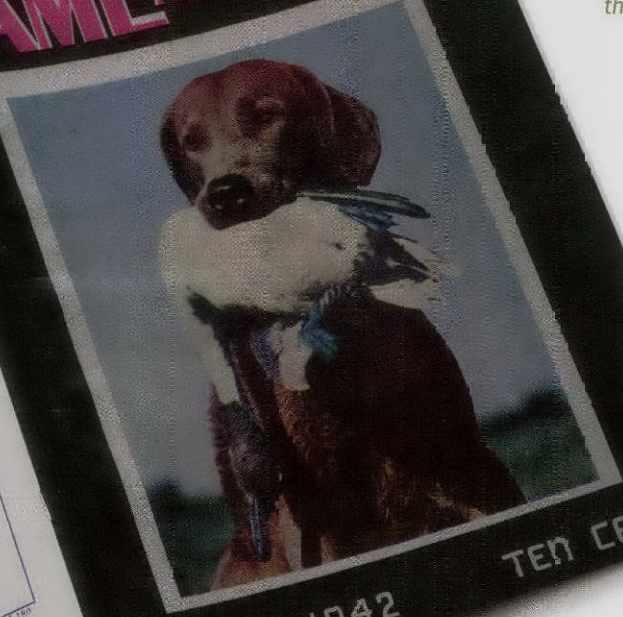
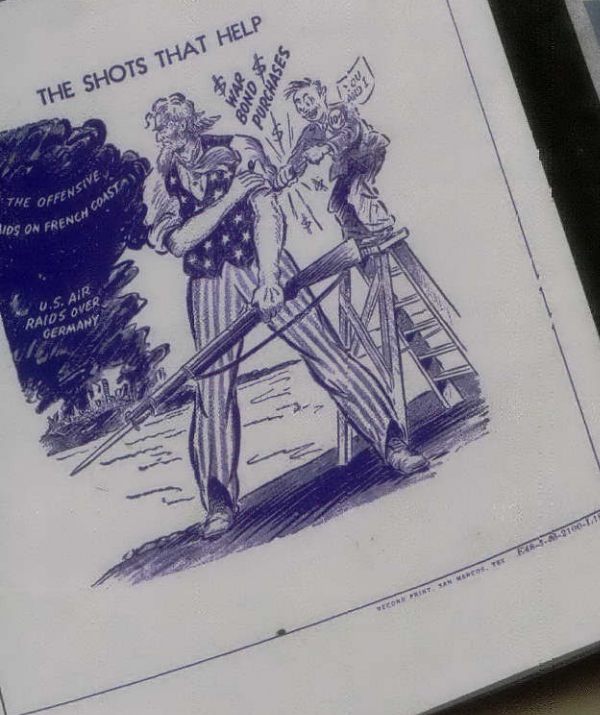
OF TEXAS INSPIRATION

*Since 1942, we've shared
'the invigorating influence
of the out-of-doors.'*

BY MARY-LOVE BIGONY

TEXAS GAME AND FISH

The first issue of the magazine featured a hunting dog on the cover and an ad for war bonds on the back.



DECEMBER, 1942 **TEN CENTS**

Are Hunting Laws Fair to Squirrels?

By Rollin H. Baker
Wildlife Biologist



A nervous bark disturbing the quietness of a cool autumn morning is music to the ears of the East Texas squirrel hunter for he knows that the game he seeks is nearby. Such a moment is dear to almost all East Texas sportsmen because squirrel hunting ranks as the most popular resort in the forested parts of the region.

IN EARLIER days large species (bear, deer and turkey) were more popular game; however, at the time emphasis was on food getting and not so much on sport, one squirrel not being equal to a more bulky deer or turkey as a food item.

also found in the flat hardwood timber of the southeast, as far west as the Guadalupe river near Seguin. The fox squirrel enjoys a larger territory, being found throughout the State in the wooded sections, particularly along the streams, except in the trans-Pecos region and lower social Texas.

THESE RANGES indicate former as well as present distribution; however, great quincies have been especially reduced and populations are spotty over a considerable part of the area. Originally the two species had distinct ranges, the gray squirrel being an inhabitant of the hardwood timber of river bottom and flatwoods and the fox squirrel preferring upland pine and hardwood forests in eastern Texas and the thinner straggling timber of central and western Texas. Today these ranges are not as distinct. The more plains fox squirrel has invaded much of the former gray squirrel territory where overhunting and excessive lumbering have depleted the gray squirrel population and habitat. The gray squirrel is less adaptable to man, his livestock and his land uses than the fox squirrel.

somewhat inactive. Hollows are utilized more in winter while leaf and twig nests prevail during the summer months.

TEXAS LAWS governing open shooting seasons have often been made with little regard to the breeding habits of squirrels. Numerous laws regarding the open season for squirrel shooting are in effect in East Texas, many of which provide an open hunting season during one or both of the nesting periods and during at least one period when a large percent of the females have young in the nests. Studies made by biologists of the Game, Fish and Oyster Commission and the Texas Wildlife Research Unit indicate that a uniform season should be in force and hunting should be limited to a two month season from October 15 through December 15. If a spring season is desired a fifteen day season from May 1 through May 15 might be advisable. The bag and possession limit of 10 and 20 could be reduced to 6 and 12 as a further conservation move.

REGULATING THE kill of squirrels on a particular area can be the answer to

Continued on Page 10



As the larger and more conspicuous game began to decline about the turn of the century, the gray and fox squirrels became more popular. Squirrels were also gradually decreasing though not as fast as the larger game, since they were able to reproduce faster and were more plentiful to many of the changes man had wrought. Following this period squirrels were more eagerly sought and were among the first game animals to respond to regulated hunting and other widespread conservation methods which have been inaugurated in the past ten or more years. Today we have an increasing supply of deer and turkey in the forests of eastern Texas but still find that squirrel hunting is the most popular sport.

OF THE two species, the gray or cat squirrel is preferred by most hunters. This agile marmoset has rosy cunning and sporting ways, but perhaps its habit of attempting to escape when disturbed, rather than hiding as the fox squirrel often does, attributes best to its sporting qualities. The fox or red squirrel is lazy in comparison. Hunters also prefer the flavor of the gray; its flesh is often fried while the flesh of the fox squirrel is generally stewed by exacting camp cooks.

THE FAVORED gray squirrel has been more restricted range in Texas, being found only in eastern Texas from the river bottom forests of the northeast, west to the Trinity and Navasota rivers. They

SQUIRRELS ARE prolific in their breeding habits, two crops of young being produced annually averaging two or three young in each litter. Though squirrels may be found breeding the year around in Texas, there are two peaks in the cycle with nesting periods in December and January and in May and June followed by the birth of young in February and March and in July and August. The young squirrels remain in the nest for about six weeks before venturing out on their own. With such a high reproductive potential, squirrel populations can be increased through protection in a relatively short time as compared with deer and other game animals.

Unlike the fox squirrel, the gray squirrel prefers to live in groups and usually in a relatively short time as compared with deer and other game animals. In territory containing both gray and fox squirrels, the species are well segregated, the gray squirrels seemingly driving away any intruding fox squirrels.

SQUIRRELS ARE most active during periods of food abundance as in fall and early winter and in late spring and early summer. During late winter and early spring, when acorns and other fall mast crops have been exhausted, squirrels tend to be tame. Likewise in midsummer when foods are not concentrated, squirrels are found to become

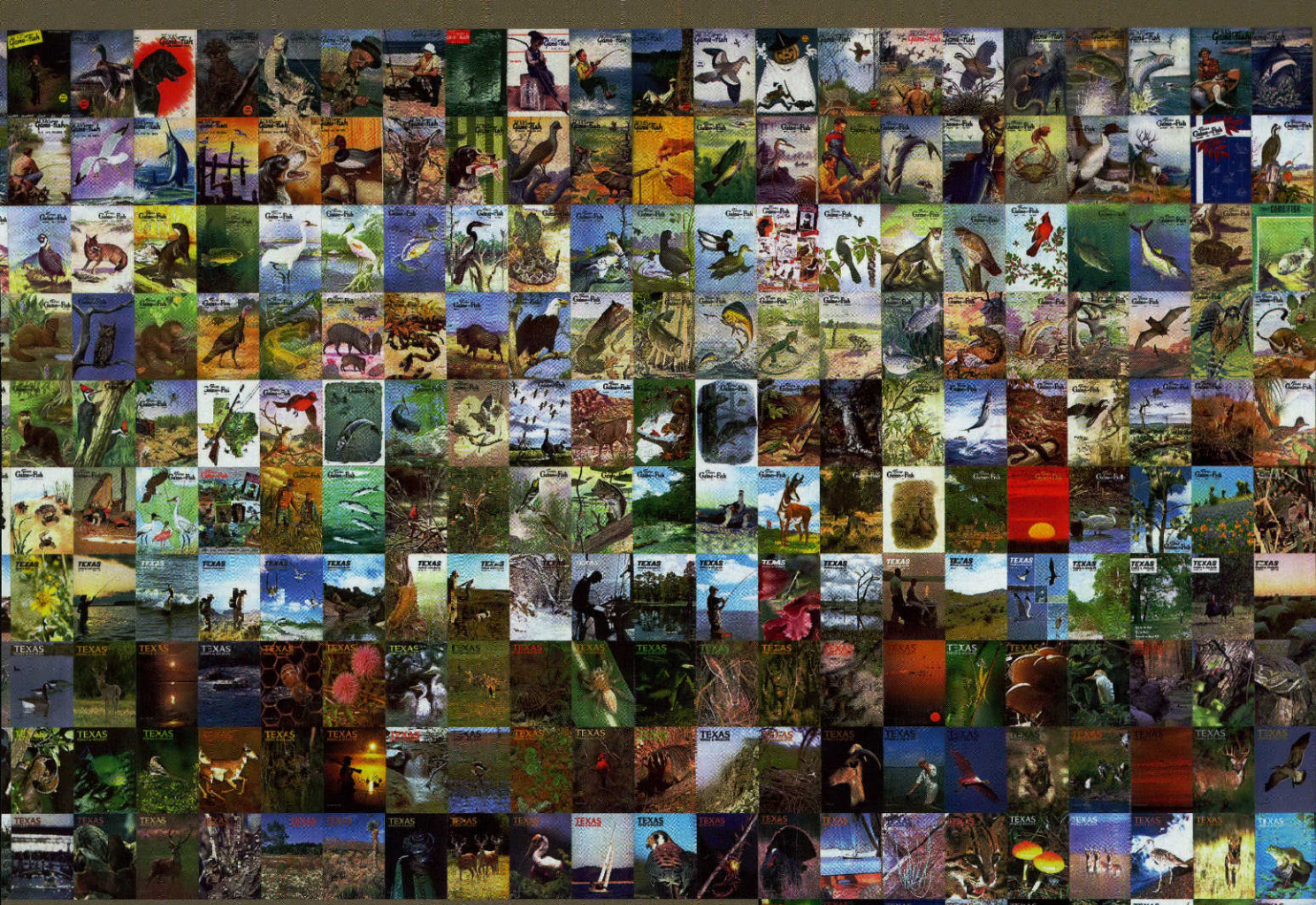
THE EARLY YEARS

With World War II on the minds of all Americans, *Texas Game and Fish* magazine did its part by urging readers to buy war bonds. Every issue carried a full-page ad for war bonds. A May 1943 article reminded Texans that: "Fishing is more than a sport. It's a source of wartime food. No ration points are necessary to catch a mess of fish, only an artificial lure license if you fish with artificial bait."

An article headlined "Flies Train in Anglers Paradise" in the April 1943 issue visited some military men in training on Matagorda Island: "Many people are disturbed about what men in service do in their off-hours. You read articles here and there about their night clubs, their honky tonking, their drinking. I recently had the privilege of spending a few days ... on an island off the Gulf Coast. There were no nightspots there. They seldom have spare time under the intensive training program, but they put in every spare minute they can in hunting and fishing."

Texas Game and Fish occasionally stepped beyond the usual fare of hunting and fishing while still focusing on "the invigorating influence of the out-of-doors." A 1943 article titled "Big Bend Park: Soon a Reality" reported that the dream many Texans had about the Big Bend country along the Rio Grande becoming a national park was approaching realization. Articles about nongame wildlife featured bats, owls, the Mississippi kite and rare birds of the Rio Grande Valley.

Early issues focused on hunting and fishing but occasionally covered other topics.



ERS: FROM THEN TILL NOW



and animals pictured in the magazine, the colors of wildflowers carpeting the state parks.

Over the decades, as technology in photography and printing advanced, stunning outdoor images became a hallmark of *Texas Parks & Wildlife* magazine. This no doubt inspired many people to venture into the outdoors.

State parks were now prominent in the editorial mix. More changes were on the horizon.

A BALANCING ACT

Texas itself was undergoing major changes in the 20th century, as David Baxter, magazine editor from 1977 to 1998, explains.

"With the changing demographics of Texas, and a shift from a rural to an urban state, we worked to instill in our readers a love and understanding of the outdoors they probably did not have growing up in modern Texas compared to their more rural forebears of the 1940s," Baxter says. "We did this by stretching our editorial scope to include the modern hikers, bikers and park visitors. Nor did we neglect, in my opinion as a hunter, our traditional audience of hunters and anglers.

"The *TP&W* magazine of the 1980s and 1990s had more of a balancing act to perform than its *Game and Fish* predecessor: In order to 'cleanse their spirits and temper their character' our editorial product had to offer something of the outdoors to every Texan. There is room in the Texas outdoors for every caring person."

Baxter regularly received complaints from hunters about not enough hunting articles and from nonhunters about too many hunting articles. He responded to each complaint with a similar message: "Over a year's worth of issues, we cover most all aspects of the Texas outdoors — hunting during the traditional fall and winter months; state parks, hiking and camping when seasonally appropriate."

Work by freelance writers and photographers began appearing in the magazine's pages during the 1980s.

"Opening the pages to freelance writers and photographers broadened the scope of talent we could bring our subscribers," Baxter says. "And realistically, it was impossible for a small staff of writers/editors and photographers to adequately cover the state."

To pay the expenses of adding freelance talent, the magazine initiated mail offers to expand circulation, expanded single-copy newsstand sales and increased advertising outside of the small, classified-type ads that ran in the back of the book.

Gov. Ann Richards shared her thoughts on the magazine's 50th anniversary in 1992.

"For the last half-century, this publication has served as the premier chronicle of the beauty of our state's vast natural and recreational resources," she wrote. "All of us who have had the pleasure of turning the pages of this magazine are reminded that Texas is indeed blessed with many natural gifts."


The magazine celebrated its 50th anniversary in 1992 with an essay by John Graves and a letter from Gov. Ann Richards. Today's magazine (opposite page) keeps current with wide-ranging topics, modern design and an app for tablets and phones.

Congratulations to *Texas Parks and Wildlife* magazine on its 50th anniversary. For the last half century, this publication has served as the premier chronicle of the beauty of our state's vast natural and recreational resources. All of us who have had the pleasure of turning the pages of this magazine are reminded that Texas is indeed blessed with many natural gifts.

The essay in this issue by John Graves speaks eloquently about Texas's natural wonders and our obligation to preserve those resources. By being good stewards of our natural resources, we will leave a priceless legacy to future generations of Texans who, like us, also will enjoy themselves and replenish their spirits in the great outdoors.

I encourage everyone to turn the pages and enjoy the excellent photography as well as the fine prose of one of America's finest writers.

We should all be thankful that this magazine will continue to remind us of our roots and connections to our natural heritage. So please join me now in wishing a happy 50th birthday to one of the finest publications in the land.

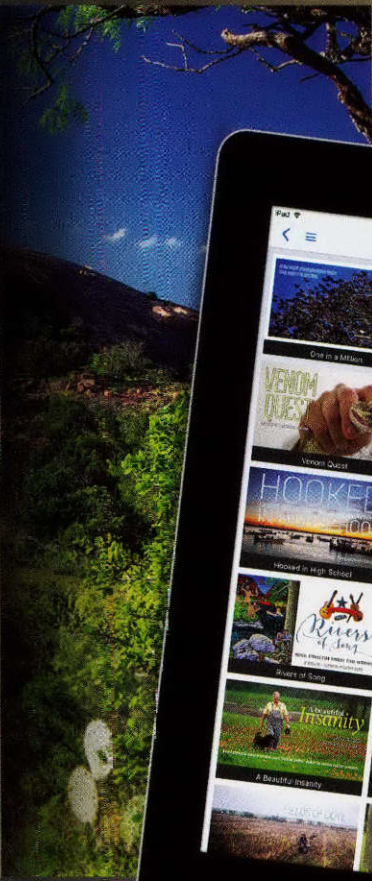

GOVERNOR OF TEXAS

TEXAS PARKS & WILDLIFE DECEMBER 1992

STATE
OF NATURE

AN ESSAY BY

JOHN GRAVES



ENCHANTED ROCK
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(830) 585-9536
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8 a.m. to 5 p.m.

A NEW CENTURY

The 21st century unfolded at *Texas Parks & Wildlife* magazine with a special issue titled ‘The State of Water.’ For an entire decade — 2002 to 2011 — the magazine focused the July issue each year on Texas’ various water resources and their future, which Executive Director Carter Smith calls “the defining natural resource issue in this state.” Five companion videos accompanied the series, which culminated in a “town hall” on the state of water at the Bob Bullock Texas State History Museum in Austin.

In 2015, the magazine introduced a new delivery system for readers — an app that can be downloaded to a smartphone or tablet for convenient reading anywhere and anytime.

Carter Smith was a fan of *Texas Parks & Wildlife* long before he took the reins as executive director of TPWD in 2008. He now writes the At Issue column each month.

“My grandmother gave me my first subscription when I was 8 or 9 years old, and I don’t think I have missed an issue since,” he says. “So, the magazine has been as much a part of my life as just about anything else in it. I wouldn’t have it any other way.”

Smith explains how the magazine has continued to honor the original goal of introducing readers to the invigorating influence of the out-of-doors to cleanse their spirits and temper their character.

“The mission of the magazine is as relevant today, if not more so, as it was when it was launched in 1942,” he says.

“Perhaps more than ever, we need to redouble our efforts to share the rich diversity of the lands and waters of our home ground and to herald our proud outdoor heritage and sporting traditions. For generations, we have brought the best of Texas’ outdoors to readers indoors, so that outdoor enthusiasts young and old, rural and urban could cherish in these pages much of what we know to be so special, unique and varied about the place we call home.”

Looking toward the future, Smith sees a magazine that will continue to be relevant as it fulfills its original mission.

“As we look to the next 75 years, we will undoubtedly seek to update the look and feel of the magazine, to contemporize it and make it more accessible, both visually and digitally, in ways that we likely can’t even imagine,” he says. “And, as our state continues to grow and diversify, we will do all we can to make it as appealing and engaging to as many readers as possible.

“Ultimately, at the end of the day, the core hallmarks of this magazine will always be there for the reader to enjoy — the robust and entertaining storytelling, the profound sense of place, the jaw-dropping imagery and the focus on our wild things and wild places. Our magazine helps capture and tell the life, history and stories of our great state like no other. Rest assured, we aim to keep it that way.” ★

Mary-Love Bigony is a former managing editor of Texas Parks & Wildlife. She retired in 2004 after 27 years with the magazine, having written 154 stories and edited countless articles.



Water/Wetlands

Robert Rommel

Sick Dog Ranch
Mitchell & Dianne Dale,
Michael Dale
Jim Wells County



Creative Digital Effects
Stephen Fisher

Texas Photo Ranch
River Revocable Surface, LLC
River Testamentary Surface, LLC
Refugio County

WILDLIFE IN FOCUS

IN PHOTO CONTEST, NATURE'S THE STAR

Nature never goes out of style. By recording a special moment or beautiful scene, photography allows us to slow down and savor nature from new perspectives. It's a real treat to witness the beauty and wonder of our world through the eyes of a talented wildlife photographer. The nonprofit group Wildlife in Focus sponsors a biennial photo contest with the goal of protecting native wildlife and native habitats in South Texas by encouraging cooperation between private landowners and wildlife photographers. The photo contest shows in compelling ways the animals, plants and landscapes worth preserving. Landowners and photographers are paired up for the contest; they compete as teams and share the prize money. The group's latest book, *Wildlife in Focus VIII*, featuring the photographers shown here, was released in fall 2016. We're excited and pleased to share a selection of the contest winners with you.

Landscapes
Kate Meadows

Lonesome Coyote Ranch
Bob & Harriet Parker,
Amanda & Jerry Gray
McMullen County



Birds of Prey

Elaine Brackin

American kestrel

Falco sparverius

Crawfish Isles Plantation Ranch

Dr. Dell Williams

Refugio County



Kingfishers & Crows

Robert Rommel

Belted kingfisher

Megasceryle alcyon

Sick Dog Ranch

Mitchell & Dianne Dale,

Michael Dale

Jim Wells County



Sparrows & Towhees

Hector Astorga

Black-throated sparrow

Amphispiza bilineata

Santa Clara Ranch

Beto & Clare Gutierrez

Starr County



All Other Birds

Mack Hicks & Doug Miller

Red-winged blackbird

Agelaius phoeniceus

Barnhart Q5 Ranch

Barnhart Family Partnership, Ltd.

Goliad County



Cardinals & Waxwings

Wade Grassedonio

Northern cardinals

Cardinalis cardinalis

Texas Photo Ranch

River Revocable Surface, LLC

River Testamentary Surface, LLC

Refugio County



Birds of Prey

Elaine Brackin

Barn owl

Tyto alba

Palmetto Lodge Ranch

Don Walden

Calhoun County



Wildcats

Charlie Spiekerman

Bobcat

Lynx rufus

Nueces Delta Preserve

Coastal Bend Bays &

Estuaries Program

San Patricio/

Nueces counties



Rabbits & Hares

Hector Astorga

Eastern cottontails

Sylvilagus floridanus

Santa Clara Ranch

Beto & Clare Gutierrez

Starr County



Raccoons, Coati, Ringtails & Mustelids

David McCool & Roy Tiemeyer

Common raccoon

Procyon lotor

Fennessey Ranch

Brien O'Connor Dunn

Refugio County



Javelina

Hector Astorga

Javelina

Pecari tajacu

Santa Clara Ranch

Beto & Clare Gutierrez

Starr County

Beetles

Cissy Beasley

Dung beetles

Canthon imitator

Twin Oaks Ranch

Lon Cartwright Family

Live Oak County



Caterpillars

Wade Grassedonio

Order *Lepidoptera*

Texas Photo Ranch

River Revocable Surface, LLC

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Refugio County

All Other Insects

Robert Rommel

Hoverflies or flower flies

Family *Syrphidae*

Sick Dog Ranch

Mitchell & Dianne Dale,

Michael Dale

Jim Wells County





All Other Reptiles & Amphibians

Stephen Fisher

American alligator

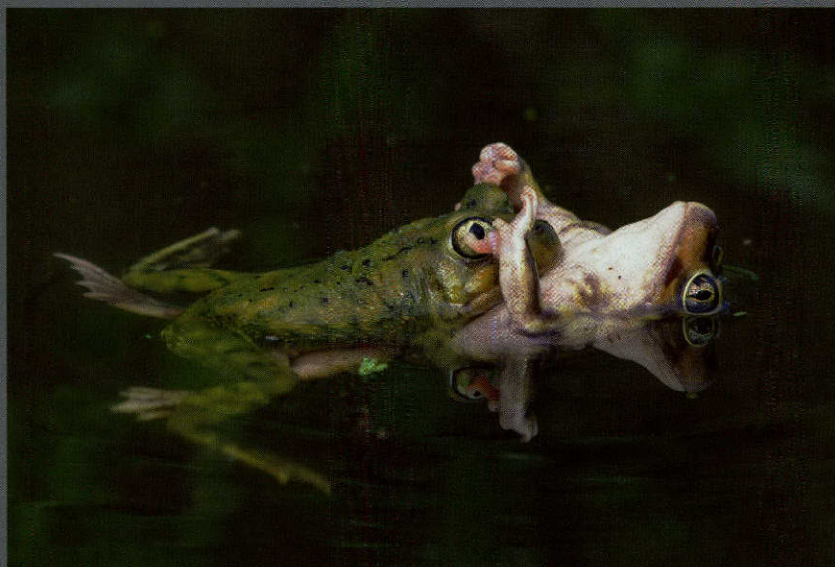
Alligator mississippiensis

Texas Photo Ranch

River Revocable Surface, LLC

River Testamentary Surface, LLC

Refugio County



Frogs & Toads

Robert Rommel

Couch's spadefoot toads

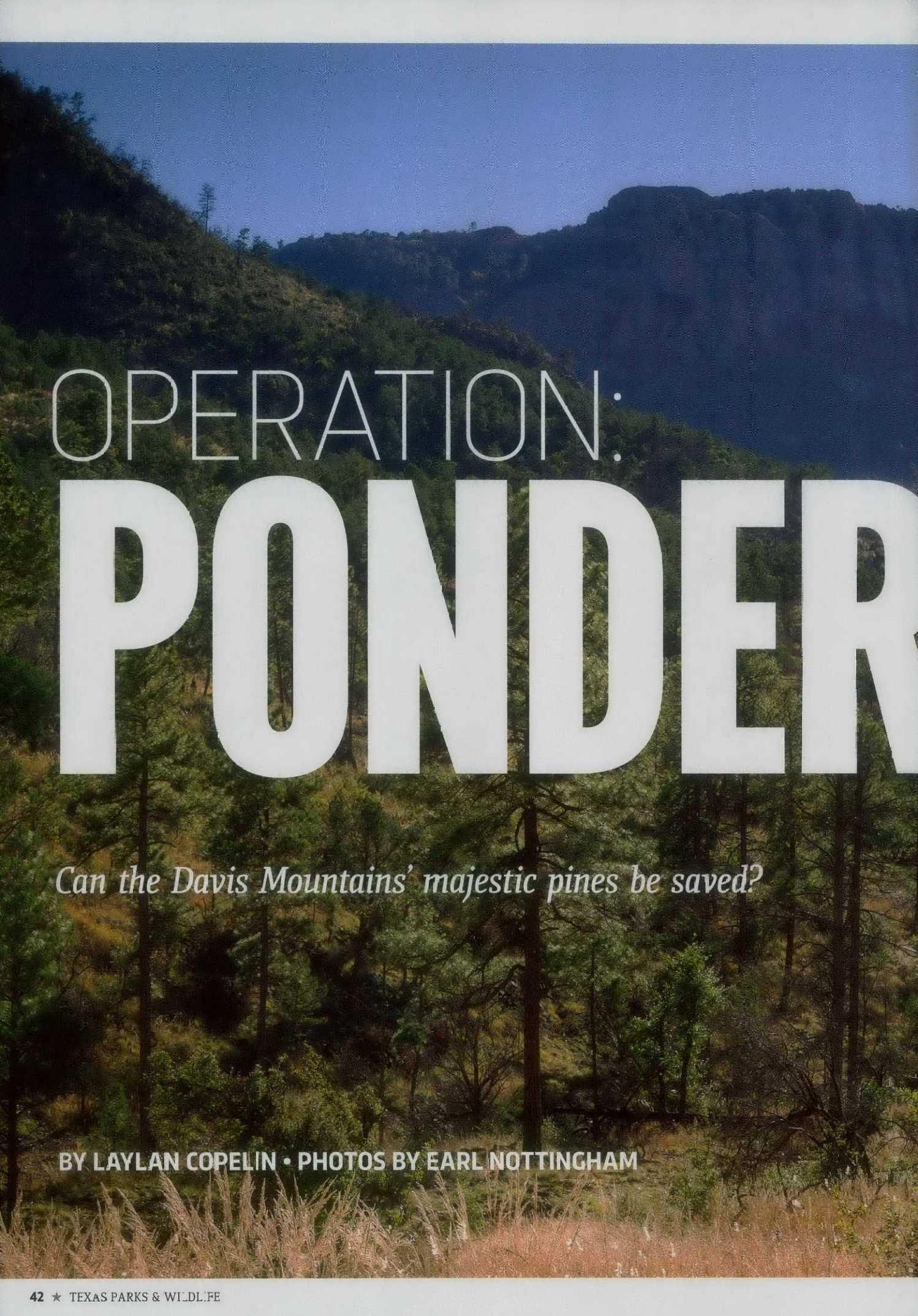
Scaphiopus couchii

Sick Dog Ranch

Mitchell & Dianne Dale,

Michael Dale

Jim Wells County



OPERATION: PONDER

Can the Davis Mountains' majestic pines be saved?

BY LAYLAN COPELIN • PHOTOS BY EARL NOTTINGHAM



OSA



High in the Davis Mountains in West Texas, the majestic ponderosa pine is losing its toehold in this part of the Lone Star State.

Extreme drought, severe cold snaps, massive wildfires and incessant infections by the western pine bark beetle have taken a heavy toll.

Up to 75 percent of the ponderosas in the Nature Conservancy's Davis Mountains Preserve have been lost over the past decade, estimates Jim Houser, a regional forest health coordinator with the Texas A&M Forest Service, and he predicts the losses will continue if nothing is done.

The Nature Conservancy, which manages the 33,000-acre preserve, has invited the Texas A&M Forest Service to help manage the forest and stymie the ecological losses, first by thinning out smaller trees that compete for water and accelerate wildfires up into the crowns of the mature pines, and later by planting seedlings where stressed ponderosa pines have stopped pollinating.

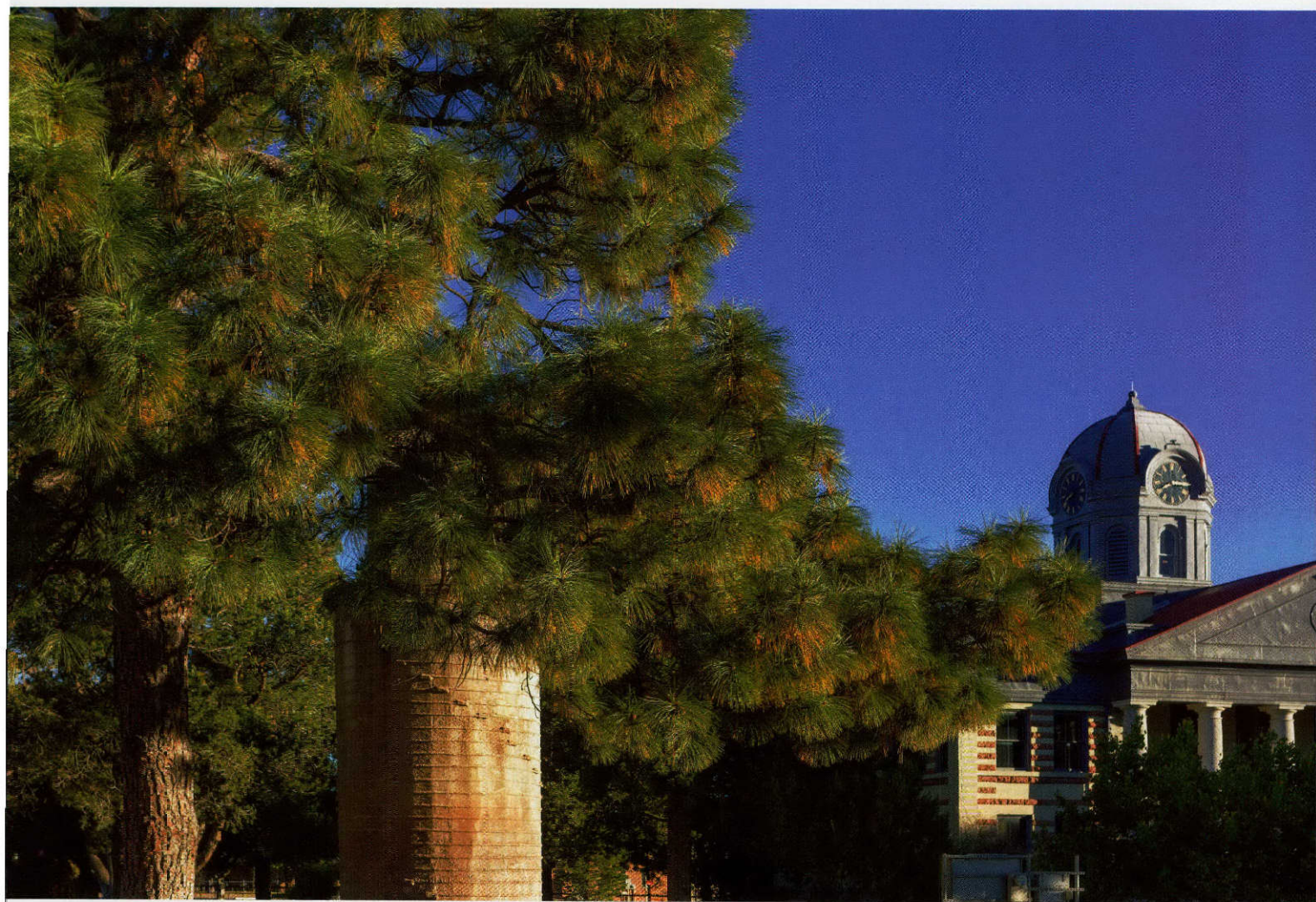
"During the fires of 2011 and 2012, we saw firsthand that our best defense against catastrophic wildfire is to fight these fires before they start, through good stewardship," says Laura Huffman, Texas state director for the Nature Conservancy. "The areas of our preserve where we'd utilized prescribed burning and tree thinning fared far better than areas where these forest management techniques had not yet been applied."

Chancellor John Sharp of the Texas A&M University System praised the forest service's efforts to restore the ponderosa forest.

"With the proper care, we can save the ponderosas for future generations to enjoy in far West Texas," he says.

Ponderosa pines are found throughout the western United States but grow in only a few spots in Texas, including the Davis Mountains, the Guadalupe Mountains and Big Bend's Chisos Mountains.





The tree thinning was tackled successfully in the Davis Mountains, but the planting of seedlings presented a problem. The question was how to obtain indigenous seedlings when many pine trees at the preserve weren't producing cones. Houser and two forest service colleagues — Bill Cates, the agency's associate director, and Jim Rouni, head of Central Texas operations — were discussing that problem on the courthouse lawn in Fort Davis when one of them looked up.

"It was kind of a [Sir Isaac] Newton's apple moment," Houser recalls.

The ponderosa pine they were standing under had cones. Pine trees on the courthouse square, in front of churches and in the yard of a county commissioner are all descendants from the forests of the Davis Mountains. Decades ago, Fort Davis residents either planted seedlings or transplanted small trees from the mountain canyons, irrigating the pines through droughts and nursing them to full growth.

A ponderosa that towers more than 80 feet over Beth Francell's yard in Fort Davis came from a seedling her uncle transplanted in the 1930s from near where the McDonald Observatory stands today.

"I was tickled to death to be part of the collecting of cones," says Francell, who would send photographs of the cones to Houser to determine the right time to harvest.

The town's pine trees became the maternity ward for another generation of ponderosas.

Operation Ponderosa, as it was dubbed, had begun.

When the cones were ready, the Texas A&M Forest Service contracted for a private arborist and a truck with a lift to pluck pine cones from the top of the town's trees. About 20 bushels of cones — about two pickup loads — were harvested and shipped to a Louisiana seed company that dried the cones and collected the tiny seeds within.

Those two pickup loads of cones produced a handful of seeds, literally — about a third of a pound. The seeds were preserved in a freezer at a forest service greenhouse in Idalou, outside of Lubbock, until it was time to plant them in the greenhouse. The following spring, forest service workers sprouted 2,300 seedlings from that one-third pound of seeds.

By the fall of 2015, with forest thinning well underway, it was time for Houser and a team

Above: Descendants of original Davis Mountains pines, several ponderosa pine trees in the town of Fort Davis provided the seeds used for the reforestation of the stressed pine forest at the Davis Mountains Preserve.

Opposite: Seasonal rains and runoff give respite to a delicate Davis Mountains forest ecosystem as it struggles to recover from drought, fire and beetle infestations.



Above: Pine cones in Fort Davis gave foresters an idea about how to restore the pine forest in the Davis Mountains.

Below: Mickey Merritt, a forester for the Texas A&M Forest Service, checks the health of a young conderosa pine at the Davis Mountains Preserve.

Opposite: Flags mark young pine seedlings, and black weed mats give the trees an edge in the struggle to take hold in a rugged environment.



of forest service volunteers to return to the Davis Mountains Preserve.

The Davis Mountains are considered a “sky island” ecosystem — one of three in far West Texas — where the isolated mountains are surrounded by a “sea” of desert. The altitude provides a cooler and wetter climate than the rest of the region, and the mountains provide habitat to mountain lions and bears as well as a number of species — plants and animals — that are not found elsewhere in Texas.

“It’s a very restricted habitat,” Houser explains.

The forest service is trying to discover — and then duplicate — the best planting methods to increase the odds of the seedlings surviving. Some are planted in triangular test plots with 10 seedlings each. Weed mats cover some; herbicide is applied to others. Most seedlings are just planted wild.

There are two planting seasons in the experiment: November and again during the monsoon season in late summer.

The Texas A&M Forest Service and the Nature Conservancy are focusing their replanting efforts on 350 acres of the 33,000-acre preserve.

In November 2015, as Houser led a group of forest service volunteers past the stark, bare trunks of dying or dead ponderosa trunks, he warned, “They can come down in 10 seconds or another four years.” Ten minutes later, Houser’s warning was affirmed when the group’s return back down a mountain trail was blocked by a giant ponderosa that had just fallen.

Despite their best efforts, forest service workers know they are trying to defy the odds. Some experts have warned that less than 20 percent of the seedlings may survive. On a return trip a few weeks later, Houser found about 10 percent of the seedlings plucked from the ground by gophers.

“It’s like *Caddyshack*,” Houser says.

Meanwhile, Francell back in Fort Davis has discovered a rotting hole in the top of the massive ponderosa towering over her yard. Fortunately, the forest service had given Fort Davis residents seedlings as a thank-you for participating in Operation Ponderosa. Francell has three. She hopes at least one will prove as hardy as the seedling her uncle brought down from the Davis Mountains so long ago. ★

Laylan Copelin is vice chancellor of marketing and communications for the Texas A&M University System.





LEGACY



PHOTOS AND ART COURTESY OF DINAH CHANCELLOR / FAMILY ARCHIVE

THE ART OF NATURE

Orville Rice's paintings of wild things helped define an era of TP&W magazine.

By David Baxter

Orville Rice's iconic artwork graced covers of *Texas Game and Fish* for a decade (1945-1955) and helped establish this publication's wildlife graphic arts reputation and tradition.

Rice was in his mid-20s when he started selling art to the magazine in the post-war years for about \$25 a piece. Even as a young man he was already well on his way to becoming a skilled wildlife artist and naturalist. *Texas Game and Fish* was but one of the stops along the trajectory of his life.

Born in the coastal prairie town of Yoakum in 1919, Rice grew up in a rural setting where wildlife, especially birds, could be observed on the short walk to a pond behind his family's farmhouse. He was not a rock-chunking kind of kid, oblivious to his natural surroundings, as shown in this excerpt from his 1934 journal at about age 15:

“On a walk around Preutz’s Lake, I came to a willow tree that had fallen into the water,” Rice writes. “Roots were sprouting out along the underside of the trunk and branches, making a well-hidden little puddle in the center. It was when I was passing by this particular spot that something inside me seemed to say, ‘Look around — at the roots.’ Maybe it was instinct, or perhaps out of the corner of my eye I saw some motion there. ... Presently I saw a short fat bird with a striped belly and short tail. The bill was small and the nostrils were connected by a hole through the bill. ... It certainly was a queer looking little bird. It was a sora, or sora rail. Two days it was there, sneaking about in the shallow water, and then it just disappeared. I suppose that it was travelling and just stopped for a short rest.”

That same year, Rice entered a contest sponsored by the Cuero Turkey Trot and the Cuero Business and Professional Women’s Club. His entry, “Birds That May Be Seen Around Yoakum,” was a compendium of 50 watercolors illustrating the local birds and won First Premium prize. It and thousands of other such memories are still part of his family’s collections, treasured even more since the artist’s passing in 1986.

Dinah Chancellor, one of Rice’s two daughters, has the blue-ribbon Turkey Trot entry.

“Daddy was a curious child,” Chancellor recalls. “He did more than just superficially identify birds; he wanted to know how they survived and how things fit together in the natural world.”

His other daughter, Kathy Parsons, echoes that sentiment.

“Dad was always wandering off into the woods as a little boy and collecting birds,” she says. “That continued as an adult. When Dinah and I were growing up [in Topeka, Kansas] he used to drive our mother crazy with the dead birds and other specimens that he kept in an extra freezer. His friends also would send him carcasses to draw from.”

Opposite: Growing up, artist Orville Rice kept journals where he sketched wildlife and made notes on animal behavior.

Right: One of Rice’s early successes was his 1934 watercolor series “Birds That May Be Seen Around Yoakum,” which won a contest in Cuero.

SEE MORE of Rice’s artwork and journal entries on the *Texas Parks & Wildlife* magazine app: http://onelink.to/tpwmagazine_app

His daughters say Rice went to great effort to get the details correct.

“I recall him climbing up a tree to get a better look at a nest that contained two cardinal eggs and two of a cowbird,” Parsons recalls. “He shinnied up the tree regularly to see how the birds were doing. Much of this detail is reflected in his paintings. They are artistically appealing but also true to the natural world.”

As a youngster before he had a camera, Rice made pencil sketches in the field of those details that he later used to finish his painting, she says.

Rice left Yoakum for the University of Texas in Austin, where he studied architecture rather than art. His practical parents encouraged this, as they felt he could make a better living as an architect than as an artist.

While at the university, Rice fell ill with a lung ailment first thought to be tuberculosis but later diagnosed as histoplasmosis, which develops from a fungal spore found in the droppings of birds and bats. One of his professors found a sanatorium for him in the Davis Mountains of far West Texas, where Rice spent a year recuperating.

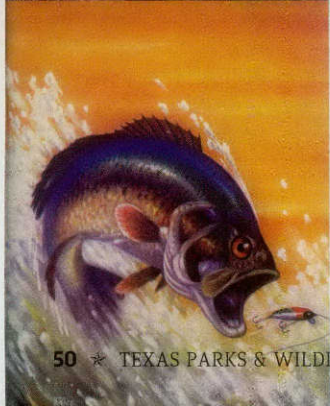
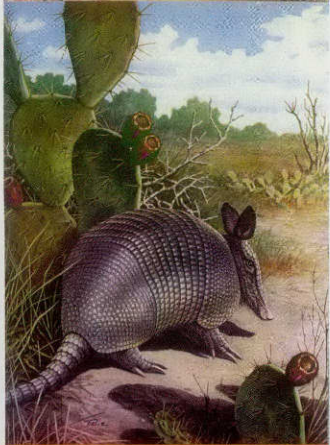
For a naturalist, albeit an ill one, the Davis Mountains are a good place to recover. Instead of giving in to the isolation and depression accompanying a severe infection, as others might, Rice turned his mind to learning all he could about the natural surroundings.

“I can never remember him being anything but optimistic, mentally active and curious,” says Parsons. “When my sister or I attempted to mope or feel sorry for ourselves, he would say ‘*Pobrecita!*’ and wind up with us laughing about it.”

Despite his parents’ practical advice, there were few architecture jobs for young Orville when he graduated from UT and married Zora Wilkerson in 1943. Moving to Wichita, Kansas, he took a job at the Boeing Aircraft Company as a draftsman. His employers soon discovered his talents and used his art to illustrate flight manuals and employee newsletters, complete with cartoons of folks working on planes.

Rice finally put his architecture degree to use, working some 33 years in Topeka, designing structures all over Kansas, including Topeka’s First Baptist Church, where he taught adult Sunday School. Throughout his life, Rice painted images of wildlife, providing illustrations for books and for magazines such as this one. He retired from architecture in 1981 to devote more time to birding, photography and painting.





Rice went on to illustrate numerous books and issues of Cornell University's ornithology journal, win first place in the Kansas Wildlife Art competition and have paintings exhibited in National Audubon Society shows.

Rice often incorporated his own image in paintings and exhibited a playful side that sometimes went unnoticed by subscribers to *Texas Game and Fish*. Take a close look at the big-horned owl painting in a spooky Halloween setting that he did for the November 1947 issue (image at left). Can you find the witch riding a broomstick? No subscribers at the time did, and it took some searching on my part after Dinah Chancellor told me about it.

In addition to painting, Rice read and appreciated the whimsy of James Thurber and Dr. Seuss. Here's a sampling of his own verse:

Ode to the Ota

*I don't think I've ever seen an ota –
Not even a glimpse as big as a tiny iota,
But if I wanted to take a colorful photo
Of a fancy ota propelled by a motor,
Perhaps I'd aim at an antique DeSota
Or toy a little with a little Toyota!*

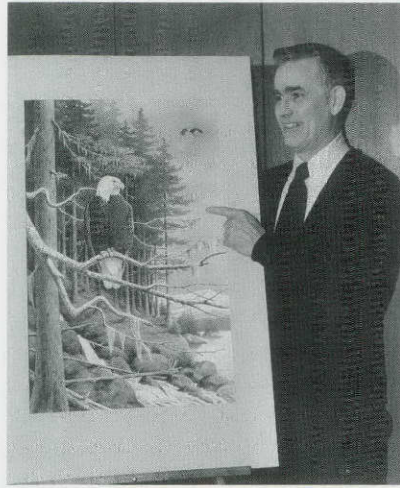
— O. Rice, Jan. 1984

That humor would go a long way in helping his family cope with the artist's penchant for filling the freezer with feathers or accumulating cages of injured or orphaned birds. Rice served as the president of the Topeka Audubon Society for many years, and its members often would bring him injured birds, which he kept in cages in the living room, splinting broken legs with Popsicle sticks.

"One year our cat killed a Bewick's wren," Parsons remembers. "We took over the entire garage, and Dad and I fed her babies mealworms on the floor until they were old enough to feed themselves. Then we got down on our hands and knees out in the yard to teach them how to catch their own bugs."

Both Chancellor and Parsons have memories of going into their dad's studio, which was in his bedroom, watching him paint, sometimes discussing things with him, but often just quietly watching their father work.

"Daddy was a teacher of the first order," Chancellor says. "He wanted to share his love



of the natural world with his daughters and anyone who showed an interest. My husband, Ray, learned how to do watercolors by watching Dad."

Rice took his daughters and others on bird counts, teaching them how to look at flight patterns, bill shape and other field characteristics. He may

not have had students in a formal classroom, but he was eager to share with everyone, giving countless presentations to schools or civic groups on wildlife or architecture.

Orville Rice died in 1986 at the age of 66, but his legacy endures. John Jefferson, a longtime popular contributor to this magazine, is a big Rice fan.

"My grandmother gave me a subscription to the magazine [*Texas Game and Fish*] when I was about 7," he says. "I received the first issue, and many more thereafter. I think she was afraid that I was growing up fatherless without a man in the house to teach me about the ways of the woods and waters, so she sent me a subscription for years."

Jefferson who led TPWD communications from 1975 to 1978, watched the transformation of the magazine and Rice's work.

"I would stare at Orville Rice's covers, and dream of the fishing and hunting scenes his paintings depicted," Jefferson says. "There was a big war going on, and gas and tires were rationed. My mother didn't take any unnecessary trips, and going to the woods wasn't a priority until the war and rationing ended. The magazines with Rice's covers were about all I had, besides the woods behind our house."

Jefferson was thrilled to be able to use Rice's work recently on the cover of the *Outdoor Annual*, TPWD's handbook of hunting and fishing regulations.

"I dream those same childhood dreams each year when we run one of Rice's paintings on the cover of the *Outdoor Annual*," he says. "When it was decided to use them, I felt like it was a homecoming, of sorts, for me."

Rice's bighorn sheep is on the cover of the 2016-17 *Outdoor Annual*, as well as on the cover of this issue. ☆

David Baxter was editor of Texas Parks & Wildlife magazine from 1977 to 1998.

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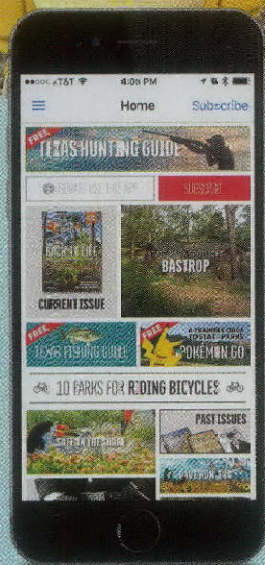
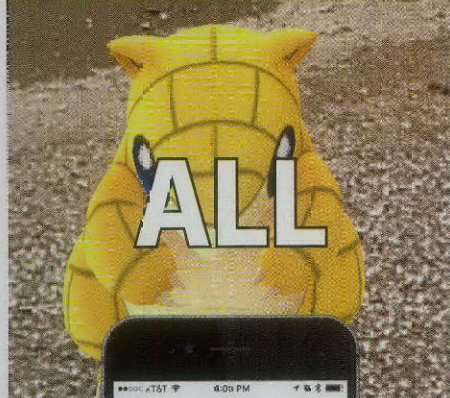
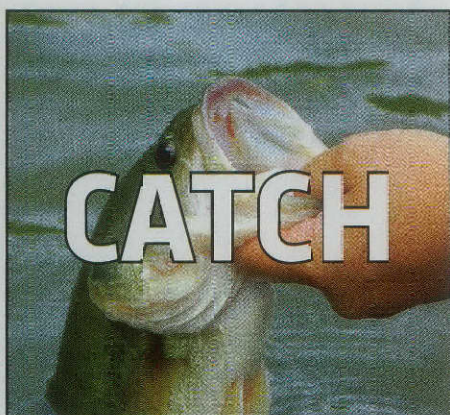
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To some, sunglasses are a fashion accessory...

But When Driving, These Sunglasses May Save Your Life!

Drivers' Alert: Driving in fall and winter can expose you to the most dangerous glare... do you know how to protect yourself?

In the fall and winter, the sun is lower in the sky so it rises and sets at peak travel periods. During the early morning and afternoon rush hours many drivers find themselves temporarily blinded while driving directly into the glare of the sun. Deadly accidents are regularly caused by such blinding glare with danger arising from reflected light off another vehicle or snowy and icy pavement. Yet, motorists struggle on despite being blinded by the sun's glare that can cause countless accidents every year.

Not all sunglasses are created equal. Protecting your eyes is serious business. With all the fancy fashion frames out there it can be easy to overlook what really matters—the lenses. So we did our research and looked to the very best in optic innovation and technology.

Sometimes it does take a rocket scientist. A NASA rocket scientist. Some ordinary sunglasses can obscure your vision by exposing your eyes to harmful UV rays, blue light, and reflective glare. They can also darken useful vision-enhancing light. But now, independent research conducted by scientists from NASA's Jet Propulsion Laboratory has brought forth ground-breaking technology to help protect human eyesight from the harm-



Slip on a pair of Eagle Eyes® and everything instantly appears more vivid and sharp. You'll immediately notice that your eyes are more comfortable and relaxed and you'll feel no need to squint. These scientifically designed sunglasses are not just fashion accessories for the summer; they are necessary to protect your eyes from those harmful rays produced by the sun in the winter.

ful effects of solar radiation light. This superior lens technology was first discovered when NASA scientists looked to nature for a means to superior eye protection—specifically, by studying the eyes of eagles, known for their extreme visual acuity. This discovery resulted in what is now known as Eagle Eyes®.

The Only Sunglass Technology Certified by the Space Foundation for UV and Blue-Light Eye Protection. Eagle Eyes® features the most advanced eye protection technology ever created. The TriLenium® Lens Technology offers triple-filter polarization to block 99.9% UVA and UVB—plus the added benefit of blue-light eye protection. Eagle Eyes® is the only optic technology that has earned official recognition from the Space Certification Program for this remarkable technology. Now, that's proven science-based protection.

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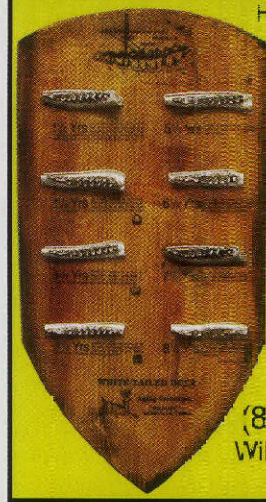
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Orienteering



ILLUSTRATION © JESSICA BLAN

ONE OF THE FASTEST WAYS to ruin a good wilderness experience is to get lost. GPS devices are helpful, but it's also fun and challenging to learn how to navigate with a compass and map.

Orienteering was first developed in Sweden to train military officers in over-land navigation. The first organized orienteering events in the United States started in 1941, gaining traction with West Point cadets and Boy Scouts. Today, orienteering skills have evolved into an Olympic Class C sport with local amateur clubs forming across the country.

THE BASICS

At the site of a race (called an orienteering course or O-course), white-and-orange control flags are set out across the terrain. The orienteer, equipped only with a compass and map to navigate, gets a control card with clues to the site locations. Racing through the course, the orienteers traverse the quickest route to the next flag, where they punch their card, verifying their visit. When they reach the last flag and cross the finish line, the person with the lowest overall time wins. The sport tests the participant's route choice, navigation over rough terrain, fitness and ingenuity.

By Emily Moskal

WHERE TO GO

TRAIN AT A PERMANENT ORIENTEERING COURSE

Three state parks have permanent O-courses, meaning the markers are cut all year long. Train here when there's not an organized event happening. Course maps can be obtained at the main gate or online.

- Tyler State Park
- Stephen F. Austin State Park
- Brazos Bend State Park
- Also: Bob Woodruff Park in Plano

TEXAS ORIENTEERING CLUBS

Orienteering is also a part of the Boy Scouts and JROTC training program. Take a stab at group variation events like relays, mass-start endurance and Score-O events.

- North Texas Orienteering Association
- Austin Orienteering Club
- Houston Orienteering Club
- ALTOS (Arkansas Louisiana Texas Orienteering Society)

GEAR UP



TOPOGRAPHIC MAP
WITH FEATURES



COMPASS



WATCH

BENEFITS

- In a real wilderness situation, orienteering helps hikers get home or share an approximate location with search-and-rescue teams.
- Being prepared lessens the feeling of worry in uncertain outdoor situations.
- Orienteering exercises the body and mind.
- Variations like mountain bike/canoe orienteering keep the sport new and interesting.
- Trail orienteering, another variation, lets those with limited mobility participate more easily.


The future of Texas State Parks is getting brighter!

Thanks to the Texas legislature dedicating 94 percent of the sporting goods sales tax to state parks, you'll begin to see much-needed repairs along with new restrooms, cabins, visitor centers, camping loops and more.

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After 51 years of coyote calling experience, photographer Wyman Meinzer says directing a camera toward predators has become far more exhilarating than shooting them with a rifle. Using a hand-crafted mouth call, Wyman coaxed this coyote into close quarters on a cold winter day in the Rolling Plains of Texas. "These predators are extremely wary of extraneous noises," Wyman says, "thus I was able to get only one photo of this beautiful female coyote in full winter pelage before it bolted into the growing gloom of a winter evening."

TOOLS: Canon EOS-1DX camera with 400mm f5.6L lens, f/5.6 at 1/640th of a second, ISO 200.



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