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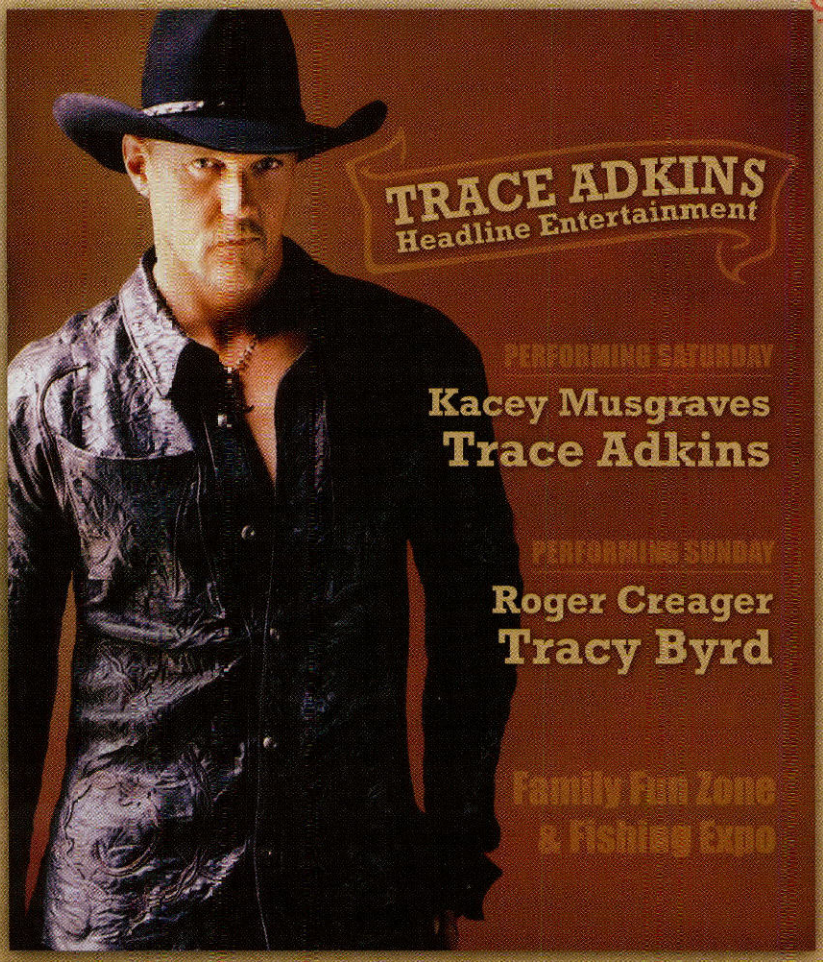

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THIS PAGE: Cypress trees on the Frio River at Garner State Park. Photo © Steven D. Glenn.

PHOTO © STEVEN D. GLENN

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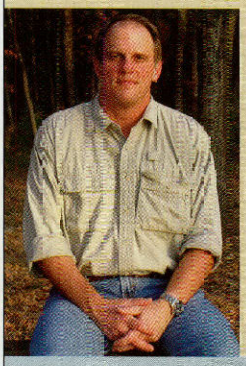
In the Field

HENRY CHAPPELL

has lived in the Blackland Prairie region for the past 25 years, but until September, when Matt White took him to a 100-acre plot in Hunt County, he'd never seen true virgin prairie. "I was truly amazed at the height of the big bluestem and the diversity of native grasses and forbs, especially the wildflowers still in bloom," he said. Henry has written two novels, *Blood Kin* and *The Callings*, and an essay collection, *At Home on the Range with a Texas Hunter*. He has collaborated with photographer Wyman Meinzer on two books — *6666: Portrait of a Texas Ranch* and the recently completed *Working Dogs of Texas*, scheduled for publication this fall. Henry's work has appeared in national and regional publications. He lives with his family in Plano.

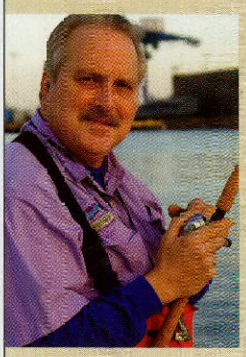


ELAINE ROBBINS

first learned about freedmen's settlements during a lecture at the University of Texas by historian Thad Sitton, co-author of *Freedom Colonies: Independent Black Texans in the Time of Jim Crow*. "This is a little-told but inspiring chapter in black history," Elaine says. "Freed slaves in Texas couldn't change the racism and violence they experienced in the years after Emancipation, but those enterprising few who founded freedmen's settlements hidden from mainstream society managed to escape the full force of this oppression. In the process, they left their children a proud legacy of self-sufficiency." Elaine lives in Clarksville, a historic neighborhood west of downtown Austin that was founded as a freedmen's colony.

LARRY BOZKA

is a fifth-generation Texan with a lifetime affinity for saltwater fishing. During the past 30 years, he has tossed baits and lures in every major bay system between Sabine Pass and Brownsville. Documenting his experiences, Larry has garnered more than 120 state and national awards for writing, photography, broadcasting and Web publishing. Among the most recent was a first-place award from the Texas Outdoor Writers Association for his Web site and blog, CoastalAnglers.com. The veteran writer calls the Gulf Intracoastal Waterway "the state's most reliable freeway." Running his 21-foot bay boat up and down the GIWW, he has yet to encounter an impassable traffic jam. Larry and his wife, Liz, live in Seabrook, less than a mile from the westernmost shores of Upper Galveston Bay.



MAIL CALL

PICKS, PANS AND PROBES FROM OUR READERS

FOREWORD

I'm saddened to report we've lost a beloved member of our *Texas Parks & Wildlife* magazine family. Longtime contributor Gibbs Milliken died of cancer in November. At his memorial service, I learned that I knew only a small part of the man: Gibbs the freelance writer. There was also Gibbs the artist, Gibbs the world traveler, Gibbs the fisherman, Gibbs the professor and many more.

Gibbs' old friend John Jefferson is working on a proper tribute for our March issue. I'll leave it to him to tell the extraordinary tale that was the life of Gibbs Milliken.

Here in the office, we'll all miss his frequent visits — he always brought a new gadget or a new tale of adventure. I'll miss his irrepressible excitement for all things outdoors. Even as his health failed, he continued to turn in his monthly Field Test articles and share ideas for future stories. I was looking forward to his article on Bowie knives. It was the perfect sort of topic for Gibbs, the intersection of Texas history and sharp objects.

On the rare occasion when he would disagree with one of my editing decisions, Gibbs' charm still had a way of shining through. One of his Field Test columns was about lanterns and flashlights. I titled it "Bright Ideas." Gibbs pointed out to me that, "Well, they're *not* ideas. They're lanterns and flashlights." He then went on to tell me how his paintings were usually named after the actual items featured in them. He favored straightforward communication in both the written word and in his art. He sometimes referred to himself as "the last Realist."

I'll also miss the incredible depth of his knowledge. A while back, we had an article that mentioned the date of the last jaguar sighting in Texas. I sent Gibbs an e-mail to see if he could verify the date. Within an hour, I received several e-mails describing the complete history of the jaguar in Texas. And it wasn't a history he'd read in a book. It was all about people he'd known, people he'd worked with — it was history he had lived. He knew the big cat hunters and the people who had tried to save the big cats. More often than not — in a paradox that baffles non-Texans — they were one and the same.

That's just one of many stories that will remain untold now that Gibbs is gone. I'm sure another writer could research the topic, but it just wouldn't be the same. You can't reproduce the kind of firsthand experience he had. It wasn't just the facts he knew that set him apart — it was the way he learned them. It wasn't as if he'd set out to become a walking conservation encyclopedia — his knowledge was simply a byproduct of his many outdoor adventures. Like that last Texas jaguar, Gibbs Milliken was truly the last of his kind.

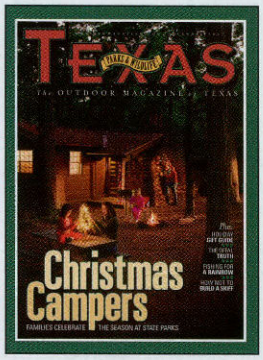
Robert Macias

ROBERT MACIAS
EDITORIAL DIRECTOR

LETTERS

MORE ON BIG THICKET PRESERVATION

I read with interest your story about the Big Thicket "Snappers" ("Don't Mess with the Snappers," December 2007) because I had some involvement with the effort to establish the Big Thicket National Preserve. Your readers may be interested to know that Senator Ralph Yarborough lobbied hard for 300,000 acres to be set aside before the 35,500-acre "string of pearls" was agreed to by all parties involved at that time. Also, readers should know that a significant number of acres were donated by the major forest products companies, and most of the timber harvesting that occurred was on private individuals' tracts of land. From 1995 to 1997, an effort was made to expand the acreage of the preserve due to the involvement of Congressman Charlie Wilson. This effort involved a three-way land swap by the U.S. Forest Service, the National Park Service and three major forest products companies on a value-for-value basis. The effort failed because the U.S. Forest Service was reluctant to give up acreage.



A significant number of acres were donated by the major forest products companies, and most of the timber harvesting that occurred was on private individuals' tracts of land.

William P. Krick
Huntsville

WILLIAM P. KRICK
Huntsville

Sound off for "Mail Call!"

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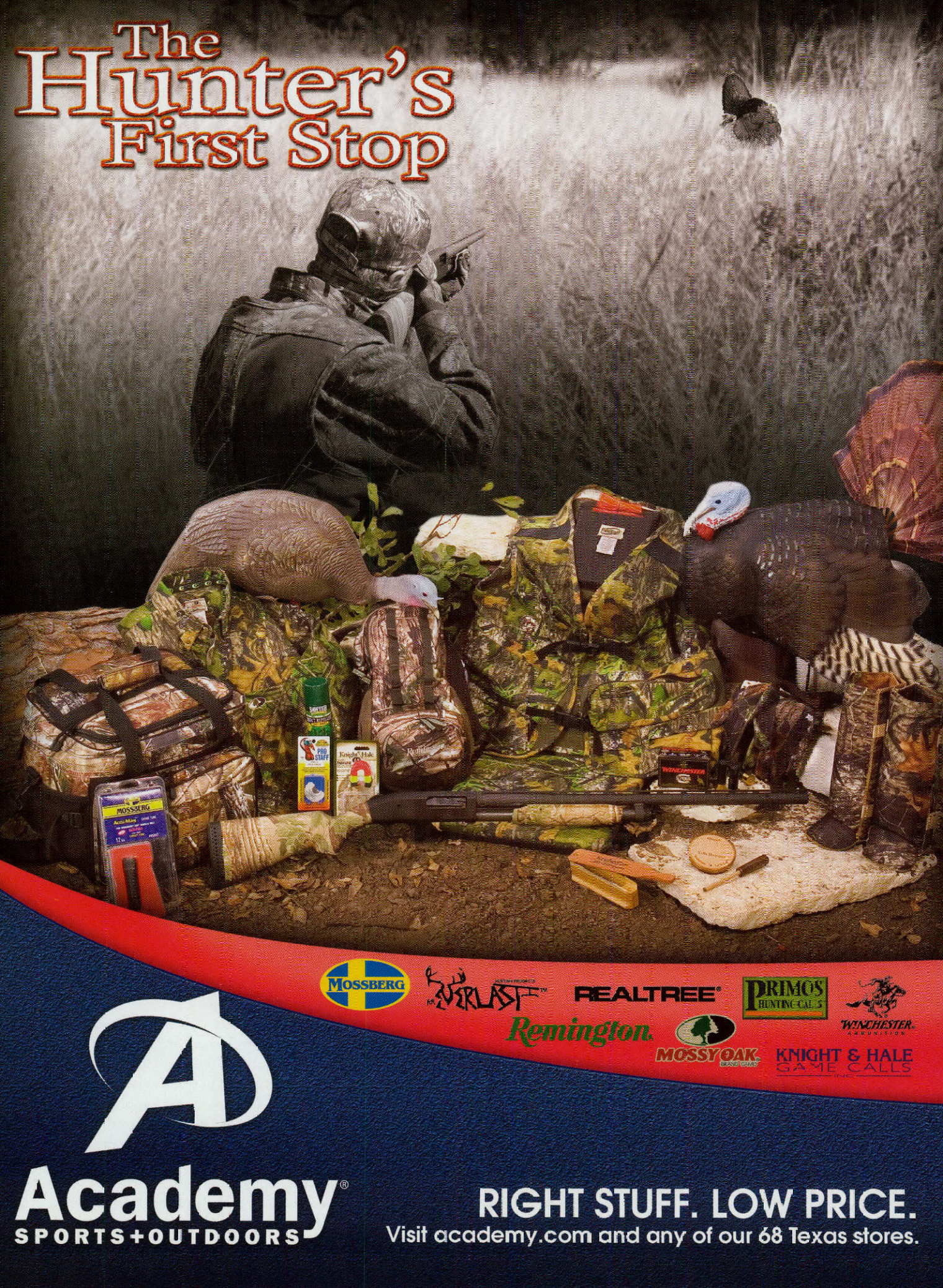
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BEAVERS ON THE MOVE

After last year's floods, beavers found new housing options.

Beavers are essentially aquatic and require water in the form of a pond, stream, lake or river for habitat.

As the near-record rains of the summer of 2007 continued delivering their onslaught, La Grange resident Pat Rebecek was thankful he had beavers on his property. While his neighbors were having major trouble with flooding, the impact on his land from the continuous downpour was minimal. "Because of the beavers' dam, a tank had been created that gave all that extra water a place to go," says Rebecek.

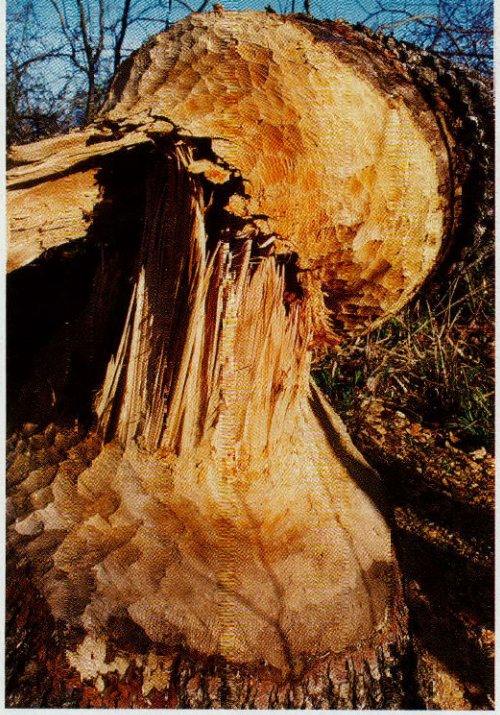
After one of the wettest summers on record, Texas landowners who've never before had resident beavers may find themselves joining Rebecek's ranks. While most wildlife biologists believe that the increase in precipitation won't result in an overall rise in the beaver population, residency patterns are expected to differ dramatically from past years. Areas that have traditionally been without water (such as dry creek beds) are now flowing and providing beavers with brand-new home-site options.

The aquatic mammals live in colonies of six or seven and build both burrows and dams. They can be found in just about every corner of Texas except for the Llano Estacado region and most of the Trans-Pecos.

According to TPWD biologist Gary Calkins, as unpopular as beavers are with some property owners, their activity is most often good for the land. In fact, says Calkins, "Their dams may help minimize flood events, recycle nutrients into the ecosystem, remove sedimentation from our water supply and produce cleaner water for our use. The areas around the ponds become much more fertile and productive due to the nutrients the ponds collect. This can lead to a much higher diversity of plants and animals using those areas."

But other landowners aren't as delighted as Rebecek when beavers move onto their property. "I've tried to coexist with

PHOTO © GARY KRAMER NET



Though some property owners find beaver damage annoying, biologists point out that the animals' handiwork can actually be beneficial.

them," explains Smithville-area landowner Paul Alexander, "but when they started girdling my oak trees, I decided it was time for them to go."

Indeed, Calkins confirms that the primary negative associated with beavers involves landscape tree damage. "This is due to either flooding, which will kill the trees, or from them girdling and eating the bark from the trees. Either way it results in dead trees, which is very noticeable and is what draws the negative image of the animal," he says.

It's important to note that, for property owners like Alexander, TPWD does not get involved in beaver control. "We primarily give landowners information about beaver activity and how they can coexist with beavers," says TPWD biologist Meredith Longoria, who is based in Bastrop. Those who prefer that the animals be removed are directed to Texas Wildlife Damage Management Services (wls.tamu.edu).

For more information about beavers and their role in your land management goals, locate your regional TPWD wildlife biologist at <www.tpwd.state.tx.us/landwater/land/habitats/>. A list of Texas Cooperative Extension county offices can be found at <county-tx.tamu.edu/>. ★

— *Mary O. Parker*

LEFT © GRADY ALLEN; RIGHT © ROLF NUSSBAUMER

60 Years Ago in Texas Game and Fish

In 1948, sewage and oilfield waste were fouling many rivers and streams.

Conservation has come a long way in Texas, but before the state implemented serious laws to protect its waters, many of the streams and rivers were in dire conditions. Contained here is a sobering report from the Texas Game, Fish and Oyster Commission concerning the condition of many of the major streams and rivers around the state.

* * *

From the August 1948 issue of *Texas Game and Fish:*

Sick Waters

It is much easier to list the miles of rivers saved from contamination by State agencies than to estimate the harm done where control has failed. Only scattered losses of fish are recorded and the extent of such losses is rarely definite enough for accurate calculation. However, it is possible to say that in some streams the contamination is such that even though the fish may survive, they are not good to eat. That is especially true of rivers overloaded with municipal sewage.

The Sewage Picture: Fortunately Texas has only two of the larger streams whose fisheries have been badly damaged by municipal sewage. They are the Trinity and the San Antonio Rivers.

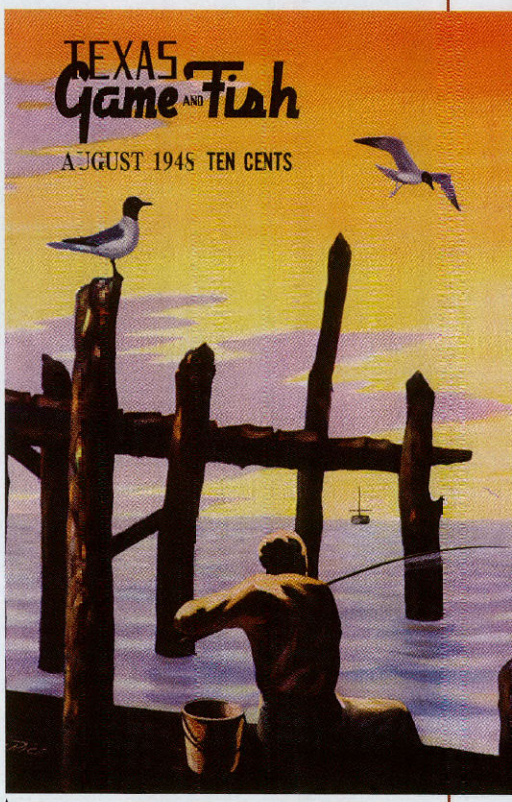
The San Antonio: This stream is a little more than 100 miles long and carries the waste of a great city. The treatment is inadequate and the stream is small. The water is unfit for domestic use along its entire length and fishing is negligible.

The Trinity: Fort Worth and Dallas, besides smaller municipalities, dump their civic and packing house waste into the Trinity River prostrating its uses for domestic and other purposes for some 300 miles. Absence of dissolved oxygen in the water makes fish life impossible for some distance below the two cities. Where oxygen is adequate farther down, the stream is so fouled as to ruin the flavor of the fish caught.

Cypress Creek: Pollution of Cypress Creek near Daingerfield developed when the Lone Star Steel Company began operation last spring. The little creek which flows into Caddo Lake is a fine fishing stream but was at a low stage, about 4 second feet flow, when the pollution peril struck. Tar liquor in the effluent was the offending element which killed all fish for several miles down stream.

Oil Field Waste: Among the first rivers to be endangered by oil and oil field waste were the Navasota and San Marcos Rivers, both small rivers and unequal to the staggering load of brine dumped into them.

The Navasota: In this stream all fish were periodically killed in a 90-mile stretch, by the oil field brine, and this continued over a score of years. After many failures, the State law in an injunction suit put an end to the contamination of the river. Any portion of the brine that could not be diverted was held in a reservoir until released and carried away by rises in the river. Texas was perhaps the first state to introduce the reservoir method.



Cover art from the August 1948 issue of *Texas Game and Fish* magazine.

The San Marcos: The value of this beautiful stream was much impaired by waste oil and brine from the Luling and adjacent oil fields for a distance of about 25 miles. The flavor of fish taken from the stream had a kerosene taste for a number of years but such complaint is no longer heard. Oil is kept out of the river, for the most part, but the brine, under partial control, is still a threat to domestic uses.

* * *

Conservation in its broadest sense is now being urged in the schools and elsewhere. Piecemeal protection will not suffice. The saving of the soil, the forests and the ranges are fundamental to the welfare of wildlife as well as to that of the human being.

—Jon Lucksinger

Editor's note: This is the last installment in an eight-part series commemorating the 65th anniversary of *Texas Parks & Wildlife* magazine (formerly *Texas Game and Fish*). ★

ILLUSTRATION BY TPWD

PARK PICK

Art Hike

Seminole Canyon's most spectacular rock art isn't easy to get to, but it's worth the effort.

The pictographs from the lower Pecos River area are considered among the finest in the world.

Long before bows and arrows, prehistoric hunters relied on a spear-throwing device called an atlatl, commonly pronounced "á-till-lattil." Go ahead, say atlatl fast a few times. If you think that's hard, imagine living thousands of years ago when spear marksmanship often meant the difference between eating well and going hungry.

Rock art depicting American Indians armed with atlatls can be seen at Seminole Canyon State Park and Historic Site, which lies on the eastern edge of the Chihuahuan Desert. Part of an atlatl was also found in the Fate Bell Shelter, one of the park's many cliff dwellings.

Access to the Fate Bell Shelter and Seminole Canyon is by guided tour only. The fairly rugged 1.5-mile hike takes about 90 minutes. From the canyon rim, the rocky trail winds down into the huge limestone overhang, where ancient Native Americans painted colorful pictographs on limestone walls and ceilings some 4,000 years ago.

Up for some challenging adventure? Once a month volunteers with the Rock Art Foundation—a nonprofit group dedicated to preserving prehistoric art—lead a strenuous, all-day hike into Presa Canyon, a remote area closed to the public. Participants must be 12 or older and in good physical condition.

"There's no trail, so you'll climb over rocks and through bushes," says park manager Emmitt Brotherton of the 8-mile round trip. "Expect to get wet, too, because the hike goes through shallow potholes filled with water."

A shorter but still strenuous hike to upper Seminole Canyon includes a stop at a watering hole used by Seminole-Negro Indian scouts (for whom the park is named). The U.S military scouts — who camped within the park between 1872 and 1914 — tracked and fought Comanches and Apaches in many battles. Against the odds, no Seminole scouts died or were seriously wounded in skirmishes with the Indians.

This month's Presa Canyon Tour is Saturday, February 16, from 8:30 a.m. to 4:30 p.m. Fee, $25; Texas State Parks Pass member, $20. Pack lunch and water; walking stick recommended. The Upper Canyon Tour is Sunday, February 17, from 8:30 to 11 a.m. Fee, $12; Park Pass member, $10. Reservations required for both hikes.

Seminole Canyon State Park and Historic Site is located nine miles west of Comstock on U.S. 90, east of the Pecos River bridge. Campsites available; on short notice, call ahead. No guided tours Mondays or Tuesdays. For more information, call (432) 292-4464, or visit <www.tpwd.state.tx.us/seminolecanyon>. ★

—Sheryl Smith-Rodgers

PHOTO © LANCE VARNELL

FLORA FACT

Misunderstood Moss

While ball moss does live on oak trees, it doesn't kill them.

Ball moss provides nesting material for some species of birds and doesn't harm live oaks.

Poor, misunderstood ball moss (*Tillandsia recurvata*). More often than not, this spiky plant gets unfairly blamed for smothering live oaks and other trees across the state's southern half.

It's not even a true moss, which reproduce by releasing spores. Classified as a bromeliad, ball moss bears bluish flowers on long stems. Windblown seeds float in the air, stick to tree bark, fences or utility wires, and then germinate. Wiry roots called "hold fasts" attach firmly to a host but do not leech nutrients. Rather, ball moss absorbs minerals and moisture from the air through scales (trichomes) on their leaves.

Tillandsia recurvata prefers low light and high humidity, a habitat typically found within tree canopies. Thus, masses of ball moss often congregate on dead interior branches of live oaks and get blamed for their demise. Actually, the limbs decline for the same reason ball moss thrives: lack of sunlight.

Though despised by many, this common "air plant" actually bears some ecological importance in nature. Spiders as well as many insects hide in ball moss. In the Hill Country last April, birders on an excursion with Field Guides, Inc., at Dolan Falls Preserve — located halfway between Del Rio and Sonora — spotted a yellow-throated vireo and a yellow-throated warbler, both nesting in ball moss clusters. What's even better: they observed a tropical parula — a songbird that's listed as threatened in Texas — on a nest built of the same material.

Now there's a good reason to love ball moss! ★

—Sheryl Smith-Rodgers

PHOTOS © LADY BIRD JOHNSON WILDFLOWER CENTER

WILD THING

Rat Snake

This non-venomous serpent has a taste for eggs — and it can climb almost anything.

"Nana, there's a snake in the chicken pen!"

Unperturbed, Marge Miller dismissed her grandson's report as she headed out to gather eggs on her family's farm near Eustace. "Probably just a stick," she thought to herself. But what she found made Miller turn around and dash for a camera.

In a nest, a rather large "chicken snake" had its mouth around an entire egg. Later that year, Miller was aghast when she spotted the same species in her kitchen — high up, intertwined in window blinds.

Such agility, not to mention an appetite for eggs, birds, rodents and other small mammals, characterizes the Texas rat snake *(Elaphe obsoleta lindheimeri)*, found in the eastern two-thirds of the state. Aggressive but non-venomous, this reptile hisses, strikes and vibrates its tail like a rattlesnake when cornered. Inflicted bites typically heal in a day or two. If picked up, a rat snake sprays a putrid musk from its anal glands.

Visually, some may also confuse a rat snake's markings — dark gray head with olive brown splotches against a yellowish tan body — for those of a rattler. Hefty lengths can intimidate, too. Most rat snakes range in length from 3.5 to 6 feet; records measure 7-plus feet. While most serpents are circular in shape, rat snakes have a flattened underside and outward-projecting belly scales. They use their unique body shape like cleats to scale trees, cliffs, walls ... and sometimes kitchen windows. ✯

— Sheryl Smith-Rodgers

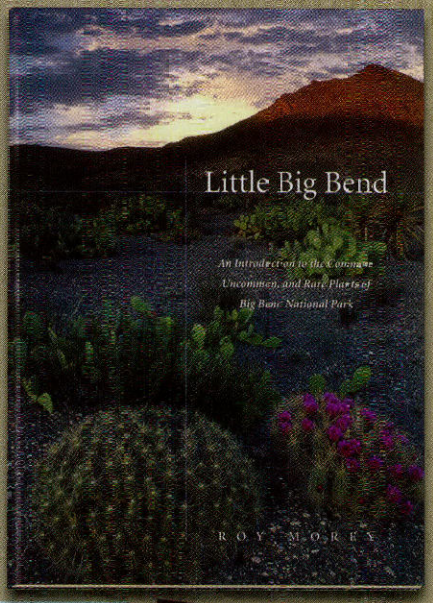
While a frightening sight climbing high up in a tree, the Texas rat snake is harmless to man.

PHOTOS © ROLF NUSSBAUMER

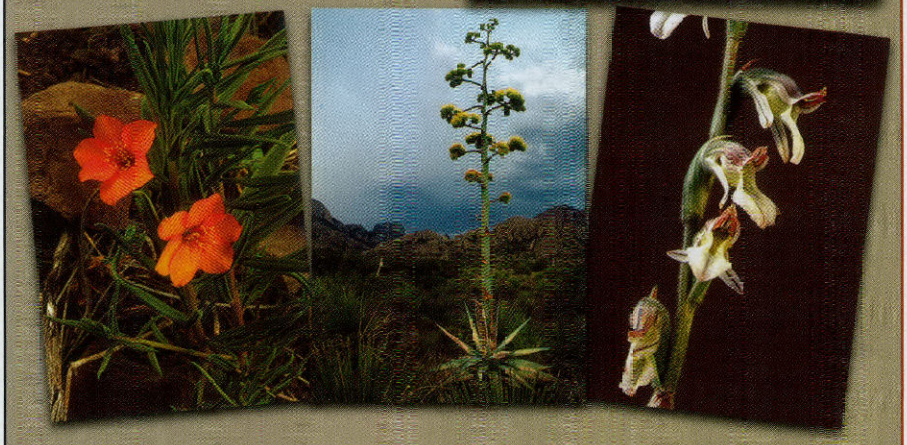
TEXAS READER

Big Bend Plants

Learn about the little wonders hidden in a vast landscape.



On first glance, Roy Morey's *Little Big Bend* (Texas Tech University Press) appears to be a beautifully photographed treatise on the plant life of the state's vast desert landscape. But a closer look reveals something far more fascinating and functional. Morey's attention to "the near landscape" of Big Bend National Park, a preoccupation that has held his interest for years, has resulted in a remarkable and detailed visual essay on the small world inhabiting a very big landscape.



"Although I often hiked long distances and explored many remote corners of the park," says Morey of his forays into Big Bend National Park, "it was the little things right under my nose, at my feet, that provided startling evidence of the desert's bounty and intrigue."

Little Big Bend — An Introduction to the Common, Uncommon, and Rare Plants of Big Bend National Park is an accomplished amalgam of pictorial charm and informative text. It provides desert naturalists and fans of nature photography with over 300 pages of stunning close-ups, plant descriptions, taxonomy, etymology, natural history and phenology. The guide — and it is a field guide as much as a book of photography — covers 109 species of plants that are found exclusively in the Trans-Pecos, with 52 of them occurring only in the Big Bend region.

In addition, Morey has included a unique and enlightening set of appendices. The first charts the status of imperiled and vulnerable plants featured in the book, illustrating the sad state of botanical affairs for a region that any Texan with pride-of-place should want to preserve and protect. The second appendix, perhaps the most useful to plant enthusiasts, lists national park locations for each plant, pinpointing canyons, trails, springs and arroyos where a specific plant can be found. It's a terrific feature for Texans who wish to make an effort to see the plant firsthand. Morey also offers a generous appendix of tips for photographers wishing to shoot their own close-ups.

"I took pleasure, literally, in small things," explains Morey in his introduction. With *Little Big Bend*, Morey shows the rest of us how to as well. ★

—*E. Dan Klepper*

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Fire and Water

Don't let a little drizzle put a damper on your campfire.

Where I grew up, on a small lake in New Jersey, winter meant frozen water and lots of time on it. We would skate miles across the icy lake using a blanket held aloft as a sail. On the ice we would have huge bonfires. Under these conditions, fire and water mixed quite nicely, as the roaring fire melted away the top layer of ice, creating a layer of water which then extinguished the flames before they could thaw their way through. It was a thrill to be out in that cold, turning slowly in front of the fire, and I can still feel the cold sting on my back as my face burned from its proximity to the flames.

For campers in Texas, fire and water usually don't get along so well. But there is no need to abandon your campfire or your campsite just because of a little rain. You can still make a campfire roar, even on the dankest of days.

In any fire primer we learn that fire needs three elements to burn: oxygen, fuel and heat. Without the "fire pyramid," the fire dies. Water removes two important elements: heat and oxygen. In order to get the fire going on a damp day, we need to combat those forces with a bit of clever camping know-how.

Look around your campsite for trees with low branches that are protected from the rain. On an evergreen tree, for example, the lower branches that die from lack of sunshine are often the same ones shielded from the rain. Because they are dead, they are brittle and easily broken off the tree. Under those same trees you may also find dry grasses or small dry sticks. Gather as much dry material as you can from this and other such protected spots.

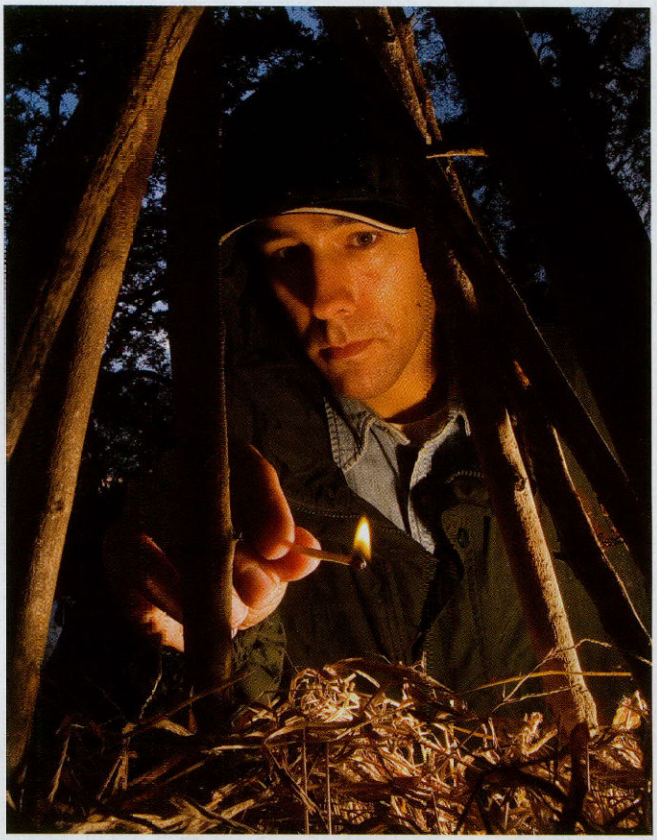
From fallen dead trees you can garner dry wood by stripping away the outside layer of bark. Inside, the wood should be fairly dry and easily inflamed. Dry materials might also be located under these trees or under the forest's heavily canopied areas. Be thorough in your search and collect as many dry pieces as you can, in all sizes; no piece is too small.

The smaller pieces will serve as good tinder. If you are car camping, other tinder might be found in your vehicle in the form of receipts, old maps and other expired papers. Search your wallet too. These papers will serve you well. If you plan ahead you can easily make wax fire starters (as described in the November 2007 Skill Builder). These can prove quite helpful, especially in the rain.

Once you have accumulated your collection of timber and tinder, keep them dry by placing them under your pack or a piece of plastic, or under your car if you have one — anywhere the drips won't find them. Any large pieces can be placed near the firepit so that once your fire is started, the heat will dry them.

In the firepit, lay a small row of dried sticks. On top of that put the tinder, mixing small sticks with the paper. Next, lay two sticks, on two sides of the tinder. On top of those, stack two more in the opposite direction — Lincoln Log style. Repeat this until you have a stack of wood approximately a foot high, creating a chimney. Now, assuming you've got dry matches or a lighter, light the tinder inside the chimney. The chimney will create a nice updraft, allowing your fire the air it requires. Hover over the flames using your body as a shelter from the rain. As the timber catches, place more sticks on little by little, being careful not to smother the flames. Blow air in to help with ignition.

Add more and more sticks until the fire is roaring nicely, at which time you can add bigger logs. As the fire grows, even damp logs will ignite until you've got a nice fire that can dry more wood and create the ambience we all seek when sleeping under the stars — or under the clouds. ★



Armed with a few simple tips, you can build a fire on a rainy day with relative ease.

TOP BY EARL NOTTINGHAM/TPWD; BOTTOM © TOSH BROWN

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Optical Accesories

Enhance your photo fun with tripods, waterproof cases, lens cleaners and padded straps.

In the field, one may find that items once considered only accessories often evolve into essential gear. Many of these allow expensive equipment to function at optimum clarity and image brightness.

The **Gitzo Carbon Fiber Tripod** is ideal for serious naturalists, hunters or photographers. It is a sturdy, professional-quality support for most optics, like spotting scopes, large binoculars and cameras. The medium-size leg system is equipped with a precision magnesium ball-head, featuring a universal mounting plate to attach and remove instruments. The knobbed head is compact, positive-locking omni-adjustable for following fast action in the field. It is shown with a mounted pair of powerful **Canon 18X50 IS Binoculars,** intended for observation of water birds and other wildlife at great distances. ($786.00, Gitzo Tripod, #GT2540 with $178.00, Gitzo Head, #GH2750, 201-818-9500, www.bogenimaging.com)

Generally, in bright light, it is difficult to see digital LCD camera-screen images. To solve this problem, use a small **Black Silk Bandana** to cover the camera back. That allows the photographer to eliminate the dimming effects of the ambient light. The cloth can be held in place by Velcro strips or taped with black photo "duct tape." ($10, Black Silk Bandana, 34"x34", Cavenders Western Wear, 866-826-4865, www.cavenders.com)

Keep your camera clean and dry with **Aquapac Waterproof/Dustproof Camera Cases** that are available in several sizes of special soft-sided packs to protect them from the elements. They allow photography through the ultra-clear polymer lens portion of the case. These may be used at limited depths underwater if care is taken to make sure all seals are locked in place. ($30-$120, Aquapac, 877-789-5255, www.waterproofcases.net)

The **Carson Lens Pen** is designed for two functions. On one end is a retractable concave lens pad containing a non-liquid cleaner for dust and smears. On the other is a brush for removing dirt. Cleaning lenses frequently is highly recommended. Delicate lens coatings can be scratched if sharp sand grains or other debris are present, so simply turn lenses upside-down and use gravity and the brush tip to dislodge grime. When cleaning smears off the lens surface, the least possible pressure on the pad is recommended. ($12, Lenspen LP99, Carson Optical, 800-967-8427, www.carsonoptical.com)

Flexing Neck Straps for cameras and binoculars by Op/Tech are made of soft elastic with snap buckles for easy removal. These add shock-absorbing comfort when carrying heavy camera lenses, tripods and large binoculars and come in several models for specific equipment. (Prices vary according to strap model, Op/Tech, 800-251-7815, www.optechusa.com)

Another flexing design is intended for binoculars that a hunter or naturalist wants to carry close to the chest. One of the best is the **Swarovski Bino Suspenders.** When needed, lift optics to the eyes for viewing and release to return to a snug fit on the chest. ($33, Bino Suspenders, Swarovski Optik, 800-426-3089, www.swarovskioptik.com)

Field accessories in a shoulder/hip-pack or tripod case should include operating manuals, rechargers, black duct tape wrapped on the tripod legs, small flashlight and batteries, extra filters and memory chips, plus large, heavy-duty plastic bags in black and silver for reflectors and weather protection. This compact kit keeps optical accessories organized, accessible and easy to transport. ✯

A. Swarovski Bino Suspenders
B. Aquapac Waterproof/Dustproof Camera Cases
C. Op/Tech Flexing Neck Strap
D. Canon 18X50 IS Binoculars
E. Gitzo Carbon Fiber Tripod
F. Carson Lens Pen

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3 Days in the Field / By Bernadette Noll

DESTINATION: UTOPIA

TRAVEL TIME FROM:
AUSTIN – 2.5 hours / BROWNSVILLE – 5.75 hours / DALLAS – 5.75 hours
HOUSTON – 4.5 hours / SAN ANTONIO – 1.5 hours / LUBBOCK – 6 hours / EL PASO – 8.75 hours

Slice of Paradise

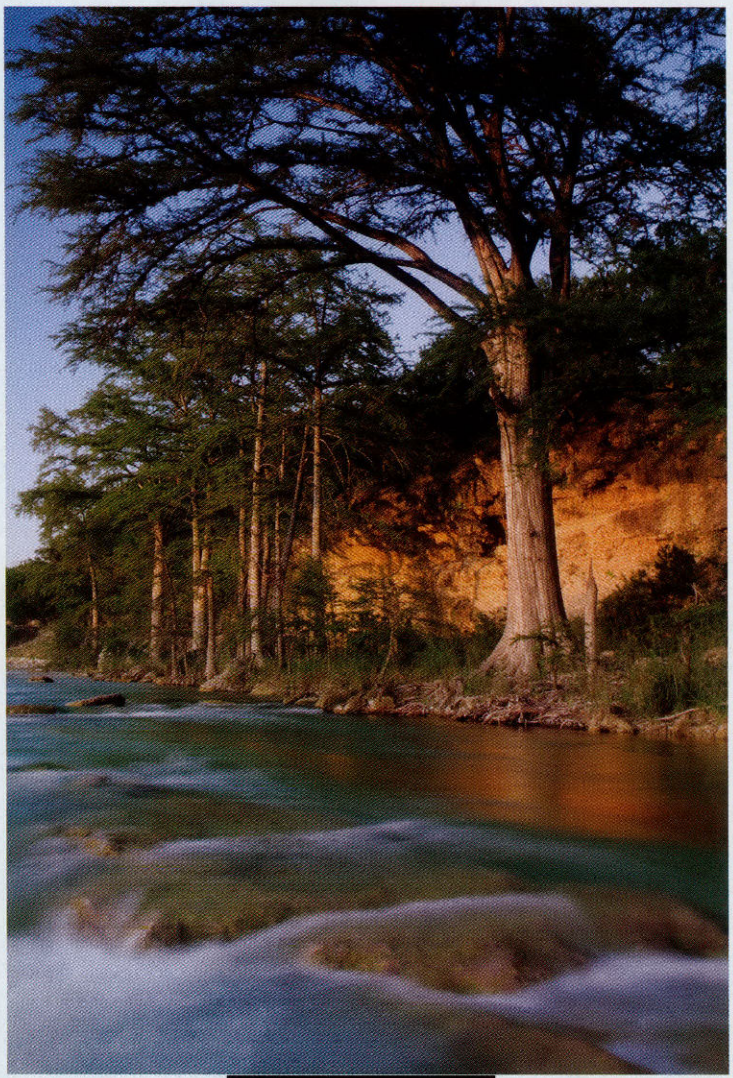
In Utopia, you'll find giant trees, rope swings, starry skies and tasty pies.

The anticipation of going to a place called Utopia had the whole family feeling quite exhilarated; even our 4-year-old understood there was magic in the word. All week long we spoke of it with reverence and joy, as if a town thus named must surely hold some enchantment.

So, on a Sunday morning, before the sun had risen, we loaded up the four kids and coolers, maps, binoculars, swimsuits and a field guide or two and hit the road to Utopia. We arrived 150 miles later, after a beautiful and winding drive through the Hill Country, where an extremely rainy summer had created a lushness ordinarily unheard of in Texas in August.

Utopia, located in the Sabinal Canyon, circled by the glorious hills of the Hill Country, is on the Sabinal River at the junction of Ranch Roads 187 and 1050, in Uvalde County. Archaeologists have found evidence that the land there was once inhabited by Paleo-Indians, nomadic bands of ancient Indians who moved through Mexico and around the Southwest for more than 10,000 years. In the late 1700s, Spanish explorers made many expeditions into the canyon to name the rivers, mountains and streams and to record the tribes there.

Capt. William Ware, a soldier in the Texas Revolution, moved to the canyon in 1852, after his first visit in 1835 inspired him to declare his love for the area. More settlers arrived soon after, and in 1856, Waresville, as it was then called, opened its first post office/store. In 1873, Ware's son-in-law moved a mile north, plotted out land for houses, stores, schools and churches, and named it Montana. But in 1884 a survey revealed that a Montana, Texas, already existed, and so the town's name was changed to Utopia.



Early Spanish explorers named the Sabinal River near Utopia *Arroyo de la Soledad,* or "stream of solitude."

We arrived in town early Sunday morning when everything, except the Lost Maples Café, was closed. After a two-and-a-half-hour drive with four kids we were not feeling exactly "restaurant-friendly," so instead we followed our Great Texas Wildlife Trail map to site 36 on the Heart of Texas West Wildlife Trail: Utopia on the River Bed and Breakfast. These trail maps, available through the Texas Parks and Wildlife Department, have been the impetus for some great natural road trips around the state and have led us to places we surely would not have found otherwise.

As we emerged from the van, we were overwhelmed by the number of ruby-throated hummingbirds that ate from the multitudinous feeders. We tripped down the grassy slope and got

PHOTO © LANCE VARNELL

NEW SPORTS TECHNOLOGY

New lure's catch rate may be too high for some tournaments.

Out-fishes other bait 19 to 4 in one contest.

Uses aerospace technology to mimic a real fish.

by Charlie Allen

ORLANDO, FL— A small company in Connecticut has developed a new lure that mimics the motion of a real fish so realistically eight professionals couldn't tell the difference between it and a live shad when it "swam" toward them on retrieval. The design eliminates wobbling, angled swimming and other unnatural motions that problem other hard bait lures. It swims upright and appears to propel itself with its tail.

Curiously, the company may have designed it too well. Tournament fishermen who have used it said it's possible officials will not allow it in contests where live bait is prohibited. They claim it swims more realistically than anything they have ever seen. If so, that would hurt the company's promotional efforts. Winning tournaments is an important part of marketing a new lure.

Fish would probably prefer to see it restricted. I watched eight veteran fishermen test the new lure (called The KickTail®) on a lake outside Orlando FL for about four hours. Four used the KickTail and four used a combination of their favorite lures and shiners (live bait). The four using the KickTail caught 41 fish versus 14 for the other four. In one boat the KickTail won 19 to 4. The KickTail also caught bigger fish, which suggests it triggers larger, less aggressive fish to strike. You can see why the company needs to get it into tournaments. An almost 3 to 1 advantage can mean thousands of dollars to a fisherman, and hundreds of thousands in sales to the company.

Inventor Scott Wilson lands a 10-pounder.

The KickTail's magic comes from a patented technology that breaks the tail into five segments. As water rushes by on retrieval, a little-known principle called aeronautical flutter causes the tail to wag left and right, as if the lure were propelling itself with its tail. Unlike other hard baits, the head remains stationary—only the tail wags. A company spokesman told me this.

New lure swims like a real fish--nearly triples catch in Florida contest.

"Fish attack live things, and they determine if something is alive by watching its movements. Marine biologists will tell you that the more a lure swims like a real fish, the more fish it will catch. Well, the only live thing the KickTail doesn't do is breathe. It's better than live bait! It lasts longer and it never hangs half-dead from a hook. It's always swimming wild and free. Fish can't stand it. We've seen fish that have just eaten go for the KickTail. It's like having another potato chip.

Increases catch almost 3 to 1.

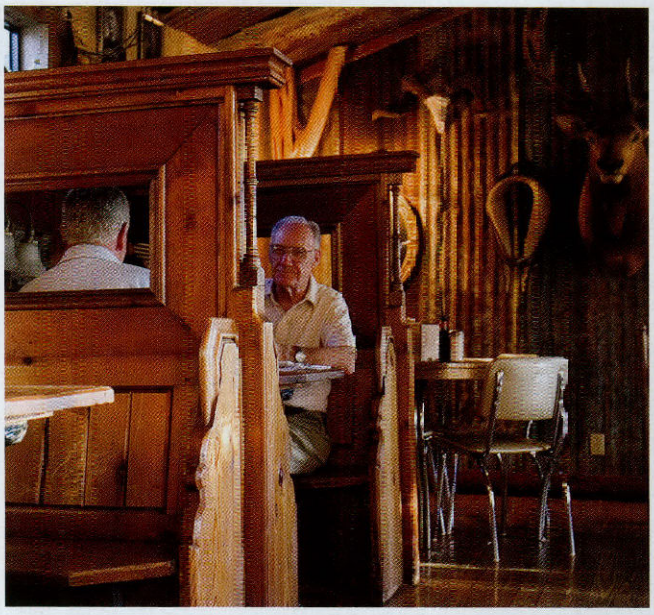
"To make the KickTail even more lifelike, we gave it a natural shad color and shaped it like the most prevalent bait fish of all, the threadfin. Game fish gobble up more threadfin shad than any other baitfish.

"We knew the KickTail would outfish other lures. It had to. Other lures wobble their heads and swim on an angle. But 41 fish to 14? That's huge! I tell you, in ten seconds anyone who has fished a day in his life knows this little swimmer's a home run. Fishermen reserved thousands of KickTails before we produced it! Here, reel it in and watch it swim toward you. Can you tell the difference between it and a live said no.) Neither can the fish.

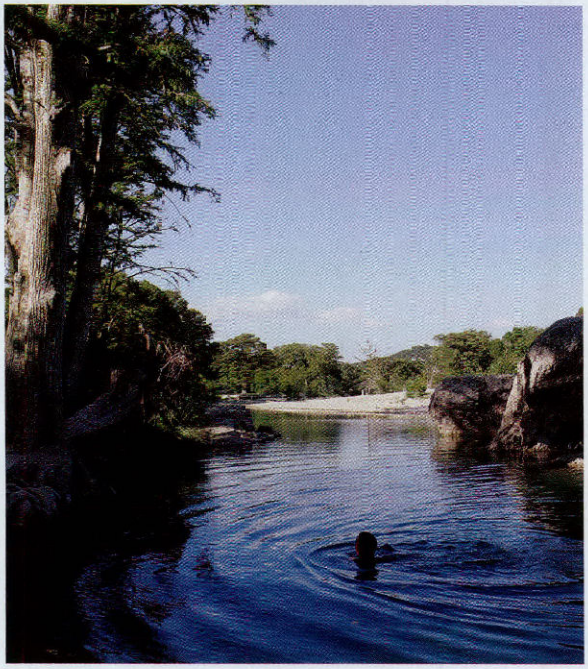
"The flutter technology also allows the KickTail to swim at the water's surface. Other top water lures must be worked to have any live action, or have a bill that makes them dive on retrieval. Our diver version is the only deep crank bait that let's you do tricks like 'walk the dog.' Twitch it at deep levels and it gives an irresistible, lifelike action. Other lures 'dig.' And there's no need for rattles. The five tail segments click together as you pull it through the water, calling fish from a distance."

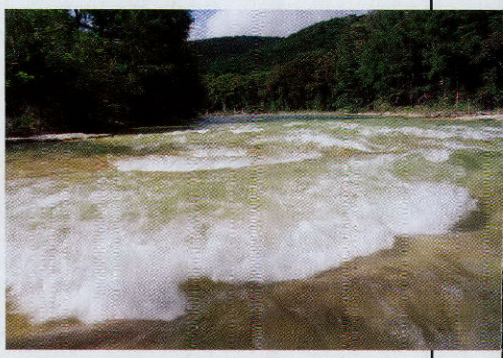
Whether you fish for fun or profit, if you want a near 3 to 1 advantage, I would order now before the KickTail becomes known. The company even guarantees a refund, if you don't catch more fish and return the lures within 30 days. There are three versions: a floater for top water, a diver and a "dying shad" with a weed guard for fishing lily pads and other feeding spots. The company says it's the only hard bait of its kind in existence. Each lure costs $9.95 and you must order at least two. There is also a "Super 10-Pack" with additional colors for only $79.95, a savings of almost $20.00. S/H is only $7.00 no matter how many you order.

To order call **1-800-873-4415** or click **www.ngcsports.com** anytime or day or send a check or M.O. (or cc number and exp. date) to NGC Sports **(Dept. KT-1246)**, 60 Church Street, Yalesville, CT 06492. CT add sales tax. The KickTail is four inches long and works in salt and fresh water.



our first close-up view of the crystal clear Sabinal River. In seconds our shoes were off and our kids were immersed in exploration and waist-deep water. The cypress trees along the banks were some of the biggest trees we had ever seen, and we stood around one, fingertip to fingertip, to see if we could encircle the trunk — we weren't even close.





Though it was torturous to pull the kids away from the water, we got back in the van, cool and fresh, and headed to Utopia Park. A dam there made a great swimming hole, but our eyes went instead to the three see-saws lined up in the shade. "See-saws!" we all shouted, and it dawned on me that see-saws were ancient relics from a time when insurance restraints didn't rule the playgrounds. A towering metal ladder leaning on a tree and leading up to a platform over the river testified that this small town may be untouched by such a phenomenon. My kids stared up in reverent awe with their mouths agape. To divert their desire, I promised lunch, and we headed the few blocks into town. We'll come back to that one when they're teens.

Now that we had sufficiently run off our road buzz, we were ready for a late lunch at the Lost Maples Café. The place was delightfully casual and perfectly suited our family of six with its array of booths, big tables and mismatched chairs. A homestyle menu matched its decor and while the kids went for the burgers, I opted for the roast beef and mashed potatoes special, which was fall-off-the-bone good. For dessert we ordered coconut cream and lemon meringue from an extensive pie menu. We debated which was better as we shared our way through both. Later, a local told me the pecan fudge pie is about the tastiest pie he's ever eaten in his life. We'll have to save that for next time.

The Sabinal Canyon Museum, open only on weekends, was our next stop. It was perfectly sized for this small town. The museum's president welcomed us joyfully and answered any questions we had about the array of maps and artifacts on display, such as the 7-foot-long wooden bathtub built by and for the town's blacksmith, a giant of a man. The museum's maps gave us an overview we hadn't gotten from road maps.

Next, we headed to our rental house, La Hacienda on the River, arranged for us by Rio Frio Lodging. As we approached the house down the winding dirt road, we saw trees full of eastern bluebirds, lesser goldfinch and even a vermilion flycatcher, so aptly named. The promise of birding from the deck had my husband just a tad excited. We donned our swimsuits and headed to the water's edge, where we could see the rocky bottom even at 15 feet deep. 'First one on the rope swing!" called my son as he swung off the cypress-lined riverbank. I watched him go, knees up, feet

BOTTOM RIGHT © LANCE VARNELL; OTHERS BY EARL NOTTINGHAM/TPWD

A homestyle menu and a decor featuring items from Utopia's history provide a casual, comfortable atmosphere at the rustic Lost Maples Café on Main Street (top left, top center, middle); the area boasts some of the largest bald cypress trees in the state along its riverbanks (left and below); mountain laurels (right) grow wild here, with violet blooms that smell remarkably like grape Kool-Aid; swimming in the cold crystal waters at Neal's Lodges (bottom left) and traversing rapids by inner tube are popular pastimes.

tucked, as he swung way out. Then my daughters went off, making it look easy enough. I grabbed hold, took off with a burst and dragged pathetically into the water.

After brief instruction and a few hysterically lame attempts, I finally mastered it when my 4-year-old yelled from the side, "Feel the power, Mommy!" In Utopia, Texas, I felt the power and spent the next couple of hours perfecting my skills.

That evening we headed for the sunset bat flight at Frio Cave, about 20 miles from Utopia. We met with our guide from Hill Country Adventures, LeAnn Sharp, and about 25 others and drove to the mouth of the cave, on a rocky hill on a private ranch. Sharp gave a brief presentation about the Mexican free-tailed bats that live there, and as she spoke, the first bats emerged. In awe, we watched as nearly 7 million bats streamed out against the setting sun and the hot pink sky. A few red-tailed hawks appeared from seemingly nowhere, grabbing their prey just above our heads — a spectacle like no other.

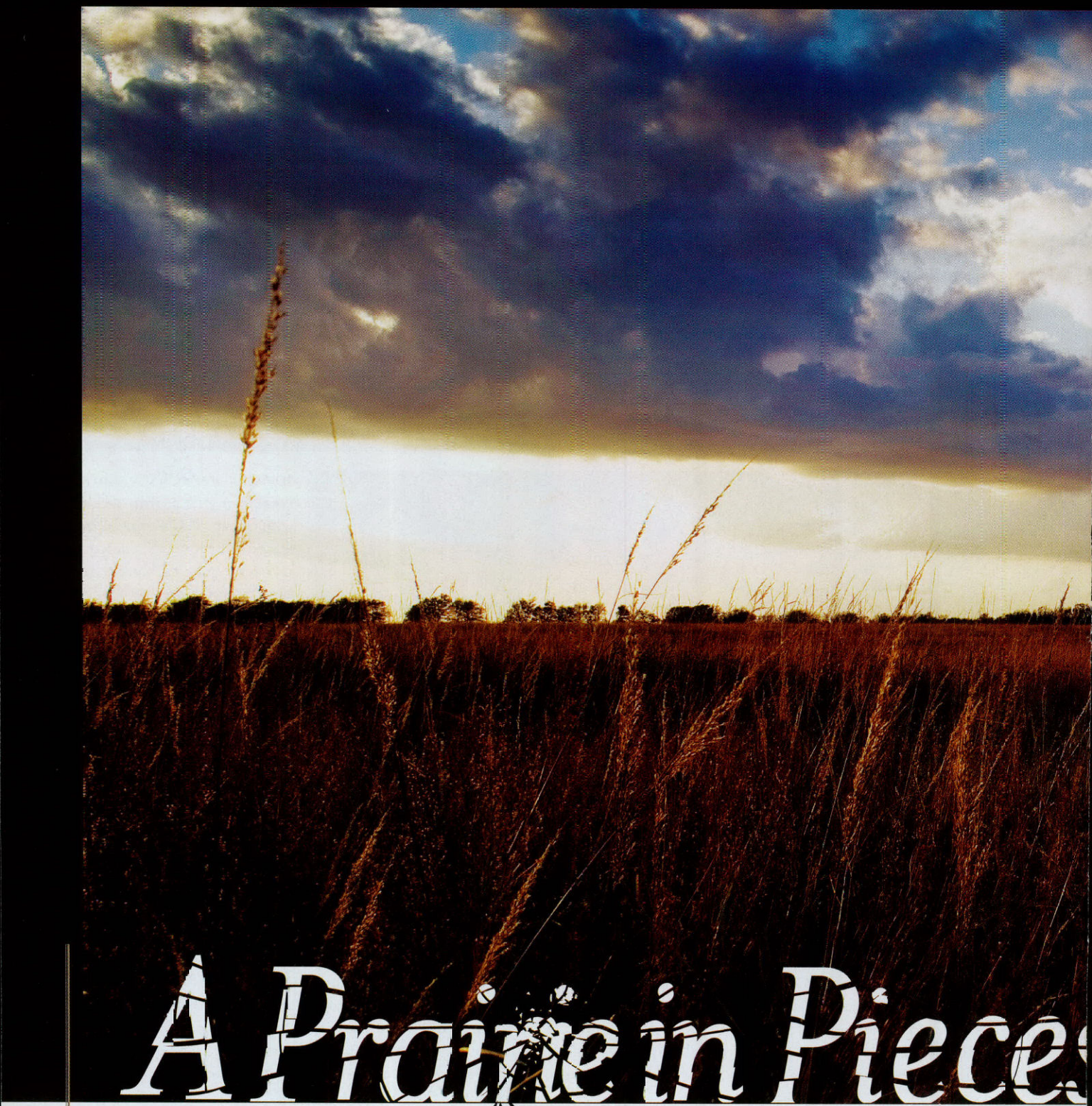
Monday morning, after a swim, we met with Lee Haile, professional storyteller and big-tree tour giver, who works with Sharp. Haile took us on a five-hour journey showing us back roads, edible plants, birding spots and several of the biggest trees in Texas. In what he has dubbed the Valley of Champions, we saw 17 different species of trees, some of them champions in the Texas Forest Service's Big Tree Registry and some darn close. On our meandering tour, Haile showed us a former champion live oak. We could easily imagine a family of gnomes living in such a tree with its far-flung canopy and countless curling limbs.

Haile explained that this region is the biological crossroads of the state, where many species from every direction come together. For many plants and wildlife, it is the end of the road. His knowledge and love of the area and its flora and fauna were palpable. The glory of it all could be seen in his expression as we hiked up a stream and he showed us where the cold spring water was bubbling right out of the ground. We filled our water bottles, dipped our feet and splashed our naked baby. Lee filled his hat and took us to our last stop, on the grounds of Crider's Camp on the Frio River, where we stood at the base of the largest bald cypress tree in Texas. Dumbstruck, we gaped and we laughed as we realized yesterday's tree was not even close.

After that, we were spent and headed back to the house for an early supper on the deck. The cold beverages we had brought with us never tasted as good as they did on that river's edge. A post-dinner swim guaranteed an easy bedtime, and the kids drifted off to sleep with visions of tree limbs dancing in their heads. On the deck that night, my

(continued on page 52)

TOP LEFT BY EARL NOTTINGHAM/TPWD; OTHERS © WHITNEY BOYCE

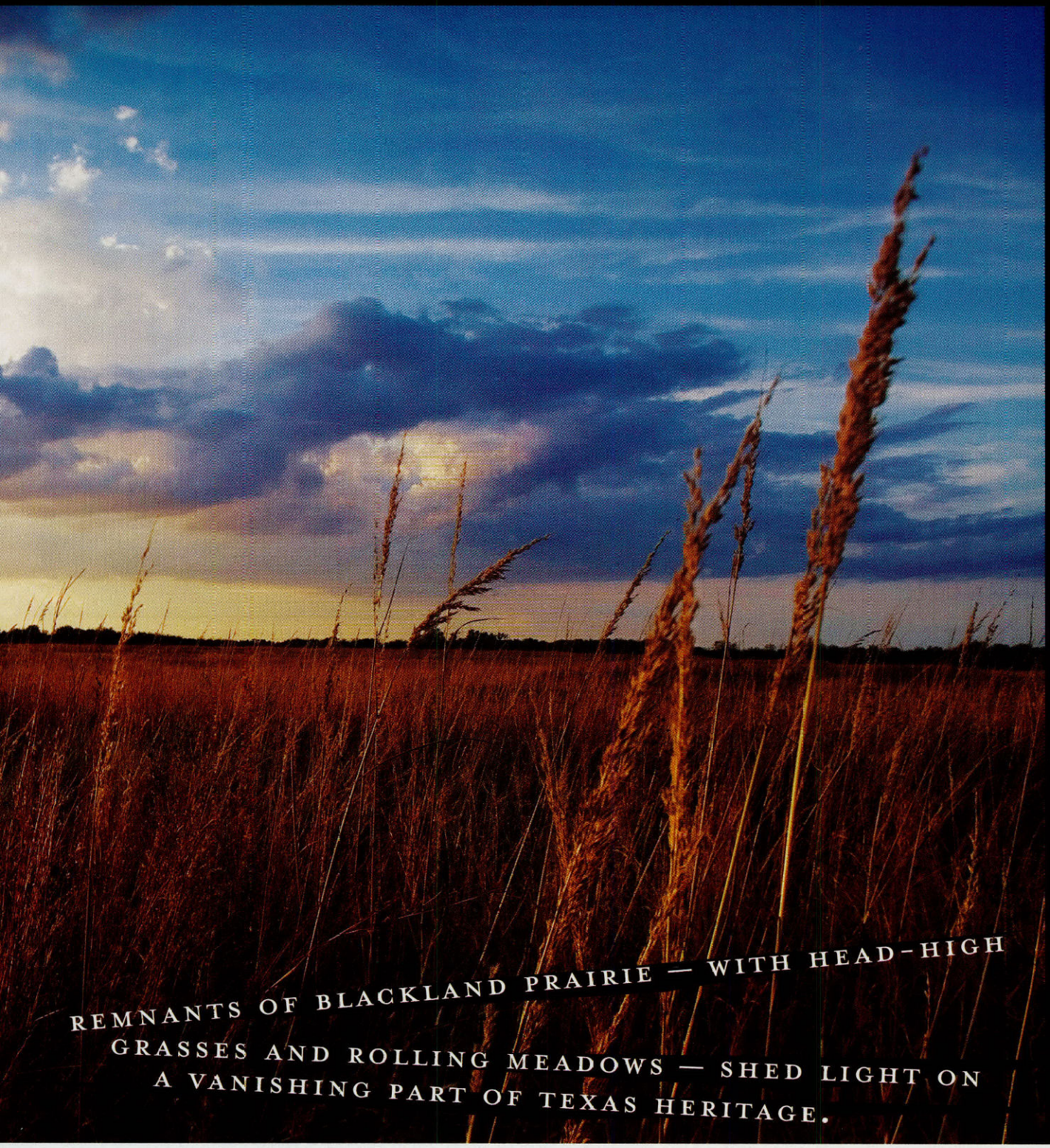


A Prairie in Pieces

By Henry Chappell

MATT WHITE SPEAKS IN PARAGRAPHS, pausing often as if to compose and polish. His manner invites careful reply, for when he's in virgin prairie, his element, he is inclined to stop in midstride — on his way to point out the crawdad-shaped root clumps of red gamma, say — to address in detail something you said in passing an hour earlier.

Perhaps this habit stems from his calling as an educator; he teaches history at Paris Junior College. Just as likely, it reflects his position as



REMNANTS OF BLACKLAND PRAIRIE — WITH HEAD-HIGH GRASSES AND ROLLING MEADOWS — SHED LIGHT ON A VANISHING PART OF TEXAS HERITAGE.

PHOTO BY EARL NOTTINGHAM/TPWD

a student of his home ground, the Blackland Prairie of north central Texas — or what's left of it.

I have lived in the Blacklands, in the Dallas area, for the past 25 years. I know parts of other regions of Texas better than I know my home county in Kentucky, where I was born and raised. Yet I had never seen a piece of untilled Blackland Prairie until I stood with White on a cool mid-September morning in a 100-acre remnant in central Hunt County, near Greenville.

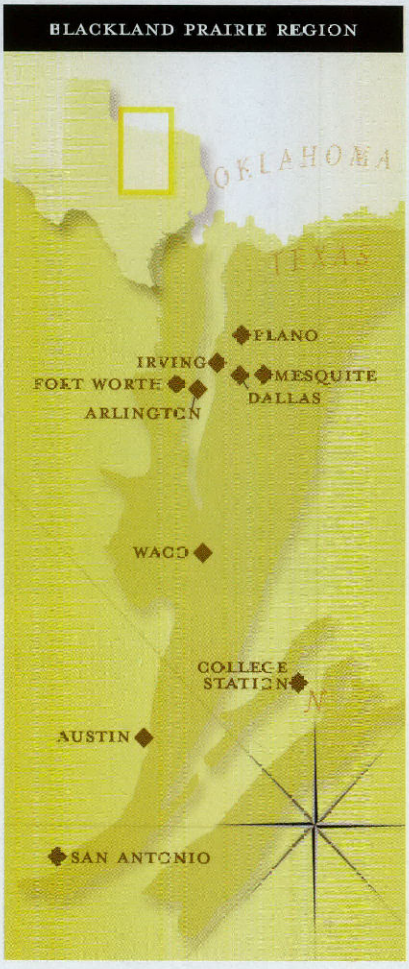


PHOTO © RUSSELL A. GRAVES;; MAP BY BOGAN COOPER/TPWD

Notwithstanding the summer heat, I would have rather seen the meadow in June or July, the peak wildflower season. I had expected the deep greens and straw browns of late summer, and indeed those hues were present in abundance. But I was unprepared for the magenta of fall-flowering gayfeather, the azure blooms of blue sage, the deep red fruit of prairie rose.

"I've always heard about head-high big bluestem," White said. "But I had never seen it until this year."

Neither had I. Nor chest-high Maximilian's sunflower, waist-high Indian grass, switch grass, eastern gama, knee-high little bluestem and sideoats grama, layered like a climax forest, laid out in a mosaic of communities suited to varying soil moisture.

Over the course of a long life, even residents — those who care to notice — can expect to see the prairie at its most glorious during only a few summers. I was fortunate. After a long drought, record spring and early summer rains had found the tough prairie rootage protected, healthy and waiting. The Blacklands have known periodic drought for thousands of years.

This tiny parcel of prairie had been a hay meadow set aside like money in a savings account, a hedge against drought, hail, pestilence and worn-out soil. A healthy patch of Blackland Prairie, unplowed and used with care, will feed grazing stock when the vagaries of nature lay waste to cotton, corn and sorghum.

"The best of the old farmers had a practical conservation ethic that's rare today," White said. "They knew that they had to plan for every contingency. They couldn't just go buy whatever they needed like we can."

White lives with his wife, Kristin, and four daughters on the Hunt County farm where he was raised. In his book *Prairie Time: A Blackland Portrait* (TAMU Press, 2006), he writes, "I come from prairie people. Therefore it is with mixed emotion that I write about these people, the world they inhabited, and the way they treated the land around them. I may not agree with the choices they made, but I realize that those choices were often desperate ones meant to ensure their survival."

The Blackland Prairie Region is an extension of the Tallgrass Prairie that runs through the eastern portions of Oklahoma, Kansas, Nebraska and the Dakotas, most of Iowa, and parts of Missouri, Indiana and Minnesota.

In Texas, the Blacklands, bounded on the west by the Cross Timbers and Prairies Region and in the east by the Post Oak Savannah Region, extend from the Red River, in Grayson, Fannin and Lamar counties and the eastern half of Red River County, about

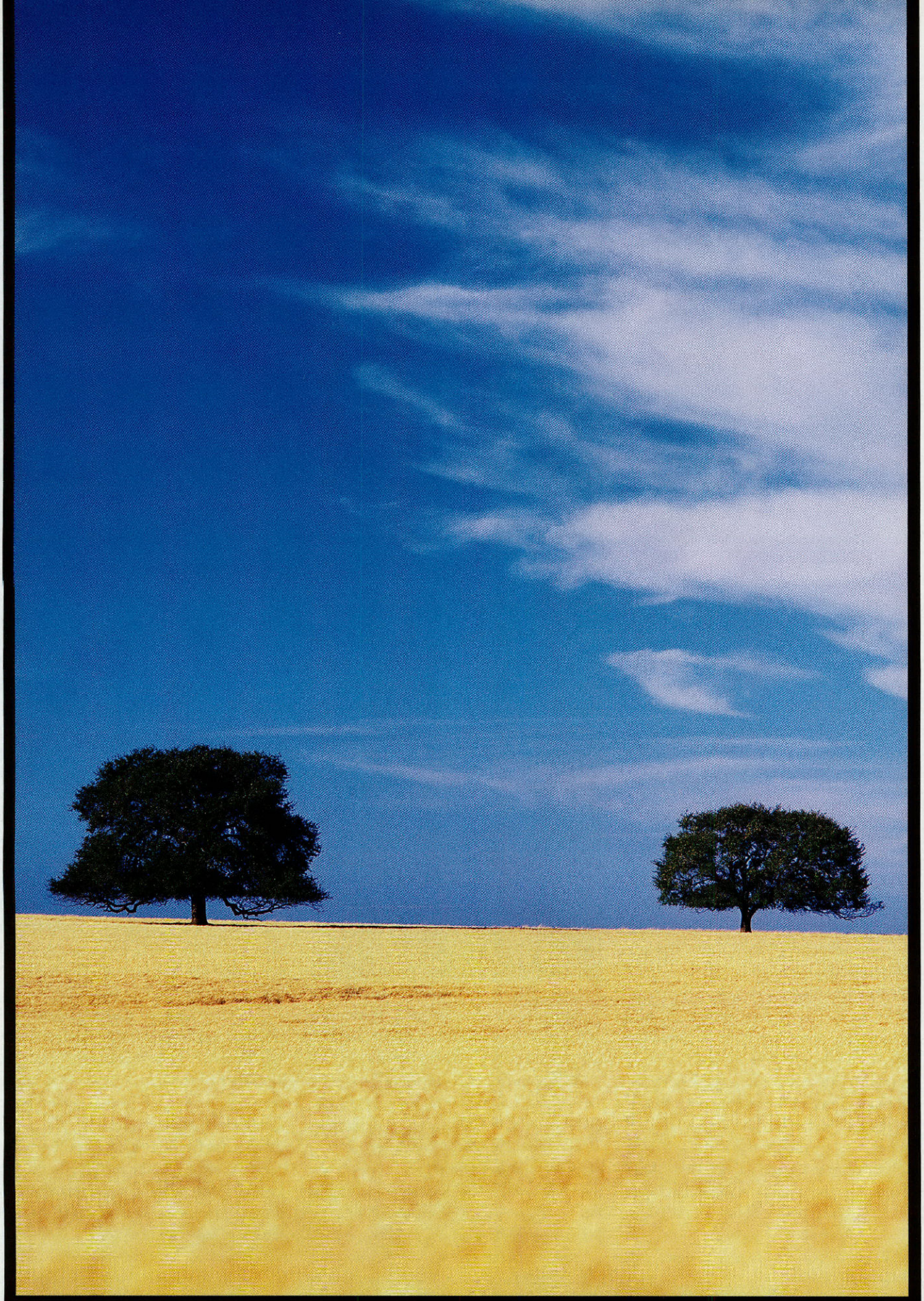


PHOTO © LANCE VARNELL

A HEALTHY PATCH OF BLACKLAND PRAIRIE, UNPLOWED AND USED WITH CARE, WILL FEED GRAZING STOCK WHEN THE VAGARIES OF NATURE LAY WASTE TO COTTON (OPPOSITE), CORN AND SORGHUM.

CEDAR HILL STATE PARK IS REFUGE TO FIVE BLACKLAND PRAIRIE REMNANTS, FEATURING NATIVE GRASSES LIKE LITTLE BLUESTEM AND INDIAN GRASS AND FLOWERS LIKE CONEFLOWERS, PRAIRIE CLOVERS, MILKWEED, COMPASS PLANT, BLAZING STARS, PRAIRIE ROSE GENTIAN AND MANY OTHERS.

300 miles southward in a gradually narrowing band through Dallas and Waco, terminating just north of San Antonio — about 12 million acres in all. Except for river breaks, the Blacklands are gently rolling, ranging in elevation from 300 to 800 feet.

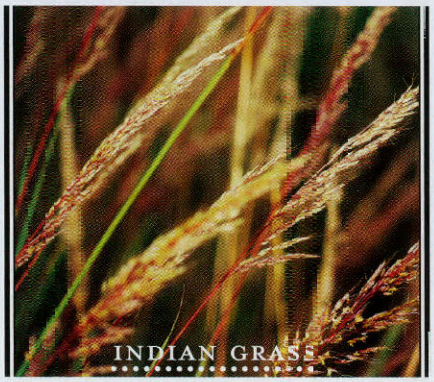
The region takes its name from the rich, black waxy, alkaline, calciferous soil that has long delighted and vexed nearly everyone who has ever worked it, from 19th century yeomen to modern weekend gardeners. Pioneers called Blackland soil "nooner" soil because it was often too gummy to plow on wet mornings, then hard as concrete by mid-afternoon. Even today, a brief shower can make unpaved farm roads treacherously slick or impassible, even to farm machinery and vehicles with four-wheel drive.

As with the Tallgrass Prairie in the plains states to the north, big bluestem and Indian grass dominate most of Blackland Prairie, while midgrasses such as little bluestem, sideoats grama and switch grass are common as well. Ancient root systems, equal in biomass to the richest tropical forests, anchor the prairie soil.

"Unlike the forests in the east, these prairies were ready for settlement," White says. "You didn't have to clear land. Just show up with your milk cow and a few hogs, and build a cabin. You might not have much, but you wouldn't starve."

In 1848, upon arriving at the edge of the Blackland Prairie, John Brooke, an emigrant from England, wrote: "It was the finest sight I ever saw; immense meadows 2 or 3 feet deep of fine grass and flowers. Such beautiful colours I never saw."

Later, after settling in Grayson County near the northern edge of the Blackland Prairie, he wrote: "I can sit on my porch before my door and see miles of the most



INDIAN GRASS

beautiful Prairie interwoven with groves of timber, surpassing, in my idea, the beauties of the sea. Think of seeing a tract of land on a slight incline covered with flowers and rich meadow grass for 12 to 20 miles."

Another Englishman, Edward Smith, who visited the Dallas area shortly after Texas joined the Union, wrote of the rich, black soil: "It is universally admitted to be the finest soil in the country, equaling in fertility the rich alluvial bottoms of the great Mississippi Valley."

Black bears foraged in the river bottoms and along the wooded creeks. Greater prairie chickens boomed on their leks in the open spaces amid the tallgrass. Pronghorn antelope ranged as far east as Fannin County. Packs of prairie wolves shadowed bands of that most emblematic prairie species, the bison. Most likely these were small resident bands joined by migrating herds from the Great Plains north of the Red River. Early Dallas settlers reported abundant buffalo bones on the Trinity River floodplain.

Constant, often violent change characterized the Blacklands. Migrating bison herds grazed and trampled the prairie, killing encroaching brush and creating a soil disturbance favorable to germination of sunflower, ragweed, croton and other forbs. Frequent wildfire, caused by lightning or started by American Indians, burned dead grass and killed even well-established brush and trees. The heat stimulated germination of long-dormant seeds and invigorated root systems. Burned plant matter provided soil nutrients.

But settlers could ill afford conflagrations. Wildfire was something to be feared and suppressed. Today, brush and trees cover hundreds of thousands of acres of former prairie. Contrary to popular perception, trees are not always the answer.

From the late 1830s, when pioneers first began trickling into the Blacklands, through the Civil War, farming was primarily a subsistence enterprise, though there are early reports of large herds of longhorn cattle and wild horses, and cattle drives from Dallas to St. Louis. Small settlements, stocked with goods hauled overland from Jefferson and other East Texas towns with riverboat access, provided modest markets for area farmers.

TOP © LANCE VARNELL; BOTTOM © KATHY ADAMS CLARK/KAC PRODUCTIONS

A WEALTH OF WILDLIFE CALLED THE TEXAS BLACKLAND PRAIRIE HOME, INCLUDING ARMADILLOS, BEAVERS, RACCOONS, PORCUPINES, KANGAROO RATS, BOX TURTLES, TEALS, HAWKS, SCISSOR-TAILED FLYCATCHERS, QUAIL, HORNED LIZARDS, DEER, BATS, RINGTAILS, SNAKES, FOXES AND BISON (UNTIL THE 1850S).

In 1860, just prior to secession, the population of Dallas County stood at only 8,665.

But the coming of the railroad in 1872 provided access to distant markets. The rich Blackland soil produced tremendous cotton crops, and the prairie went under the plow at an unprecedented rate. For the next 70 years, by some accounts, the Blacklands produced more cotton than any other region in the world. Agronomists considered Blackland soil the most fertile west of the Mississippi River. The region's human population swelled. By 1915, more people lived in Blacklands than any other region of comparable size in the United States.

Today, the Blackland Prairie may be the most tamed and degraded of Texas' 10 ecological regions, though it remains very productive agriculturally. Estimates of the destruction range from 98 percent to more than 99.9 percent. Small differences aside, true Blackland Prairie is the most rare and endangered habitat in Texas, if not in all of North America.

Matt White describes the loss: "If we think of the Blackland Prairie as a person, all that we have left is a sliver of fingernail."

In a region so altered and dominated by Dallas and the surrounding suburbs, even the most sentimental nature lover may have trouble imagining wildness worth fighting for. Nowadays, visitors and even longtime Blackland residents describe the region as monotonous, bleak, unmercifully hot, a

FOXTAIL SEDGE

place best suited for freeways, unending commercial expansion and hermetic, air-conditioned travel.

So why bother? Practically speaking, the true Blackland Prairie is gone. Would we really miss those last few thousand acres? Would anyone other than a few naturalists or nostalgic local historians even notice? Who really cares whether it's imported Johnson Grass or big bluestem growing along the road to more scenic country? We're talking about grass, not mountains or giant redwoods. You can always plant some wildflowers.

Matt White stopped his examination of a prairie petunia, a delicate flower with five pale violet petals, and pointed to the sky.

"Hear that?"

A soft *fffttt, fffttt.*

"A migrating dickcissel."

Something else caught his eye. "This is what I've been looking for," he said. He parted the grass to expose a low-growing forb with dagger-shaped leaves. "Wide leaf false aloe. Very rare. Probably the rarest plant on any of these prairie remnants. It doesn't get pollinated or set seed, but burning seems to propagate it."

He stepped back and let the grass reform a canopy over his rare find. As we walked toward the truck, he said, "You plow this up and it just doesn't come back. Even with 50 years and an unlimited budget, it's not the same. This is our heritage, and it's just about gone." ✯

VISITING BLACKLAND REMNANTS

Most of Texas' remaining Blackland Prairie survives in small patches on private property.

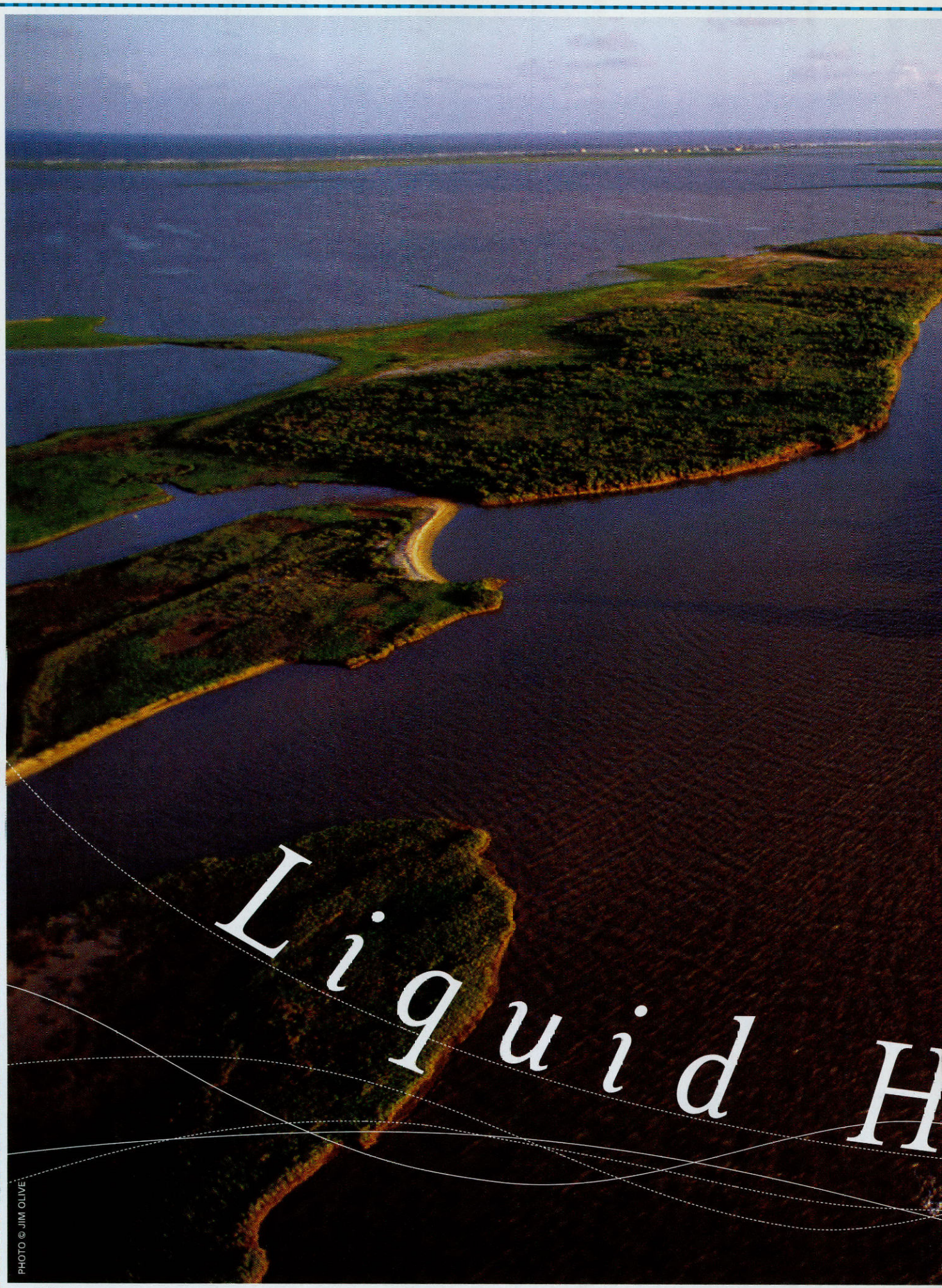
The Nature Conservancy owns or manages several tracts for the purposes of preservation, research and public education. Clymer Meadow Preserve, a 1,068-acre remnant in northwestern Hunt County, near Greenville, is one of the largest and most scenic Blackland Prairie remnants in Texas. Access is by appointment only. For information, call the preserve manager at (903) 568-4139 or visit the Nature Conservancy Web site at <www.nature.org>.

Parkhill Prairie, a 436-acre preserve in northeast Collin County, features a 52-acre remnant prairie and walking trail: <www.co.collin.tx.us/parks/parkhill_prairie.jsp>.

Cedar Hill State Park is refuge to five small prairie remnants: <www.tpwd.state.tx.us/cedarhill>.

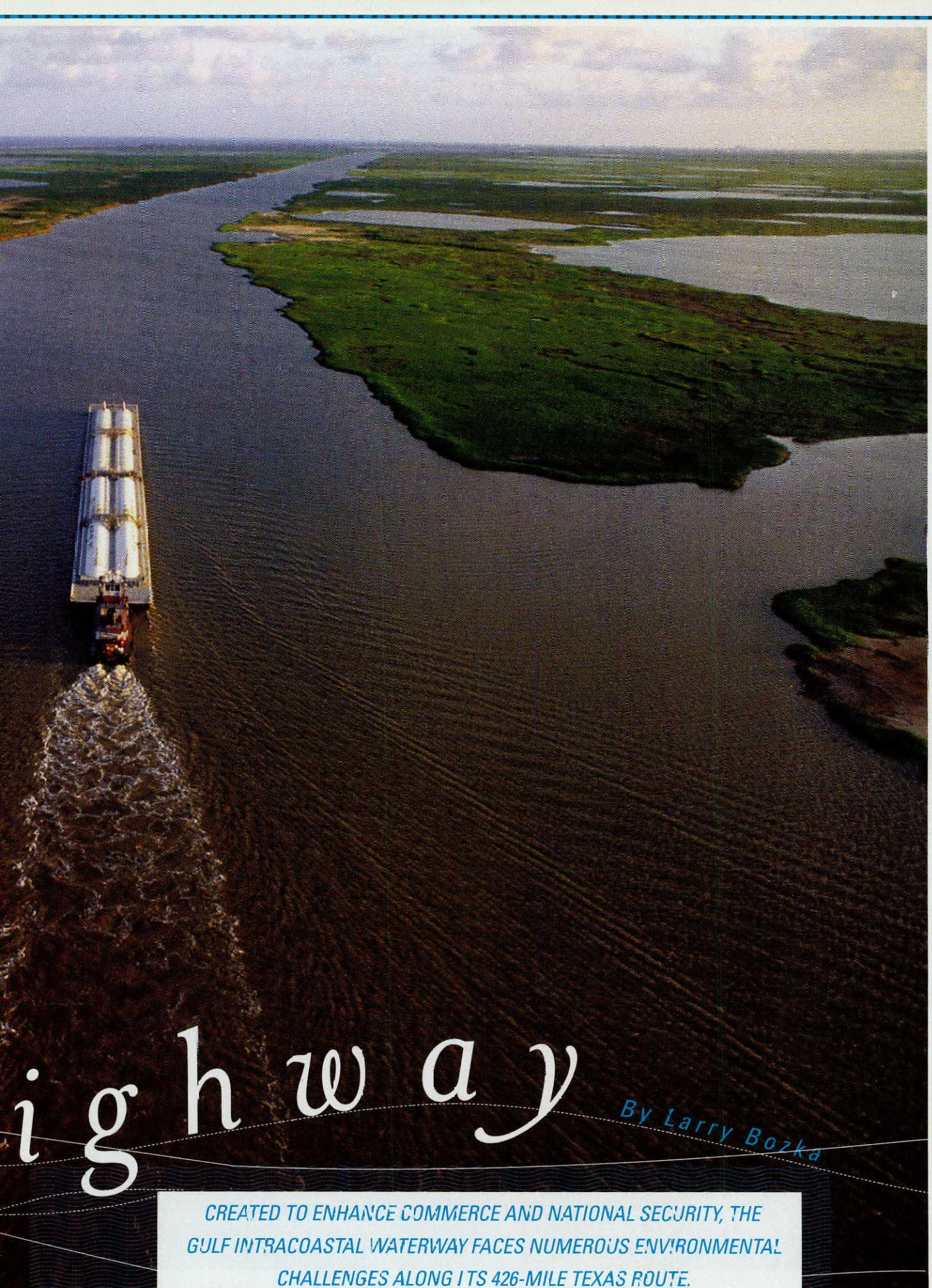
Rosehill Park is a 75-acre prairie preserve in Garland: <www.ci.garland.tx.us>.

ILLUSTRATION BY TPWD; BOTTOM © GRADY ALLEN



Liquid H

PHOTO © JIM OLIVE



ighway

By Larry Bozka

CREATED TO ENHANCE COMMERCE AND NATIONAL SECURITY, THE GULF INTRACOASTAL WATERWAY FACES NUMEROUS ENVIRONMENTAL CHALLENGES ALONG ITS 426-MILE TEXAS ROUTE.

THE NOISE WAS UNMISTAKABLE — the soggy, punctuated sneeze of a bottlenose dolphin expelling a long-held breath. The big female sounded about 10 feet off my bow, her paddle-sized tail smacking the water with a sharp and resounding slap.

I'll never forget what rose to the surface immediately afterward.

At birth, a dolphin calf measures more than a third the length of its mother. Yet despite its already substantial size, the pot-bellied calf seemed vulnerable, even fragile. Its underside was splashed with a penetrating shade of pink that on its mid-sides diffused into a slate-gray body.

Its 7-foot-long mother returned to the surface, flanked on both sides by two other adults of similar size. Moving gently but methodically, the big marine mammals took turns nudging the baby to the surface as it gained its bearings in a salty, not-so-friendly world.

Because of their upswept mouths, dolphins wear what appear to be perpetual grins. I know I had one.

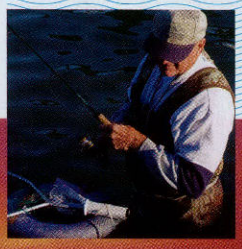
It would have seemed appropriate on the banks of a remote Caribbean island, or maybe somewhere in the Florida Keys. But it happened inside the Intracoastal Waterway near the Bolivar Ferry Landing at Galveston Island.

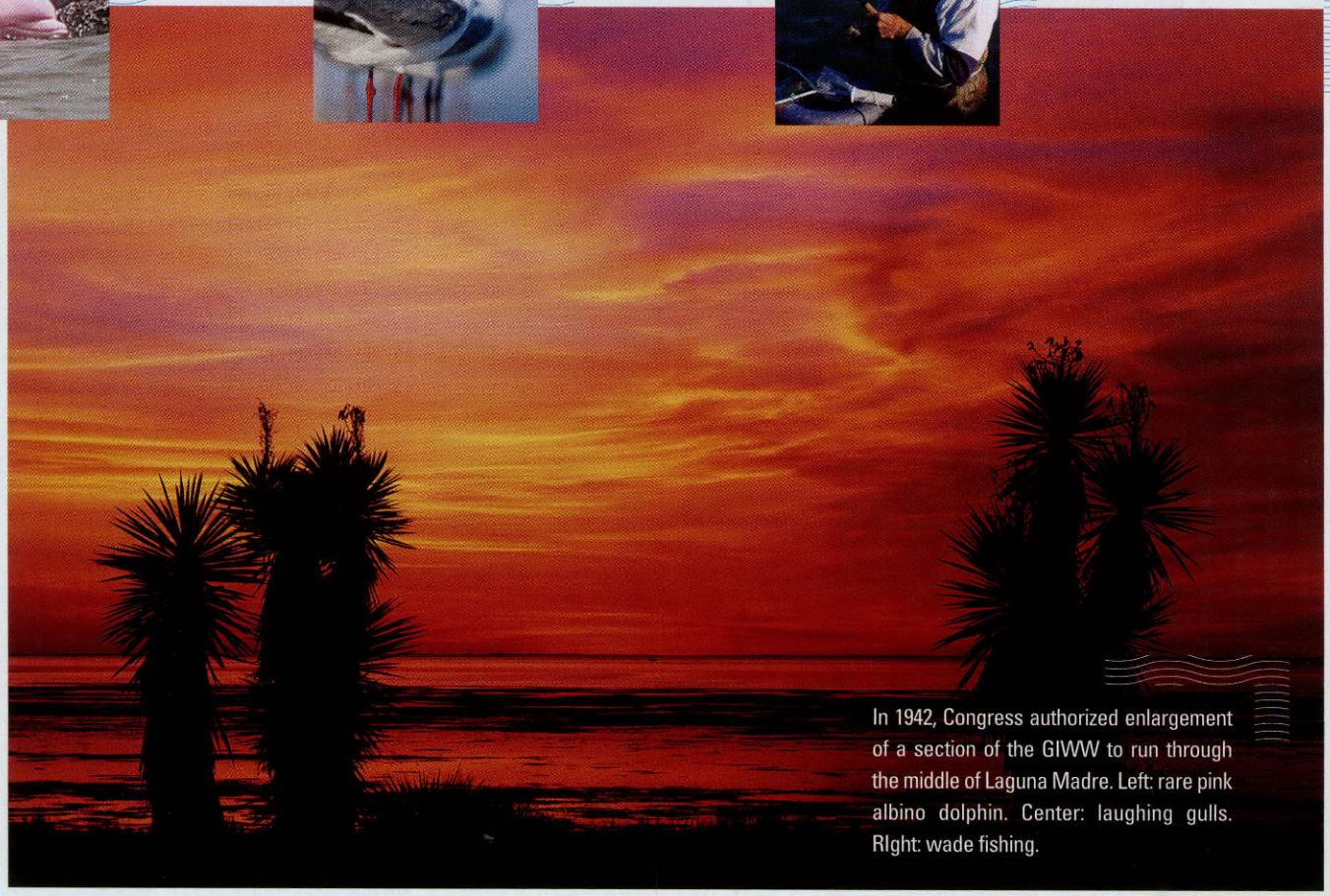
Boaters and fishermen call it "The Ditch," or simply "The Intracoastal." By any name, the Gulf Intracoastal Waterway is a remarkable stretch of water, a complicated and often-perplexing example of marine engineering that dates back to the time when waterworks projects were still the stuff of bare-chested laborers, sweaty mules and rusty dirt buckets.

The GIWW cuts, weaves and crosses approximately 1,300 miles of coastal terrain between Carrabelle, Florida, and the Brownsville Ship Channel at Port Isabel, Texas. On the eastern coast of the U.S., its Atlantic counterpart runs from Key West, Florida, to Boston, Massachusetts. Here in Texas it's a variegated liquid highway, a roughly 12-foot-deep manmade channel that flows 426 miles from its uppermost tier at Sabine Pass south to the Mexican border. It is, by a substantial margin, the largest segment of the five-state region the waterway runs through.

Texas highways can change faces fast. Inside a half-hour, drivers in the state's larger cities can watch high-rise skylines and industrial complexes quickly shrink in the rear-view. Buildings, factories and plants are replaced by suburbs and, eventually, largely untamed stretches of wide-open countryside.

In some ways, the waterway's course through Texas is much the same. In others, comparing a freeway like Interstate 10 or U.S. 59 to a massive waterway like the GIWW is like ... well, like comparing land to water.





In 1942, Congress authorized enlargement of a section of the GIWW to run through the middle of Laguna Madre. Left: rare pink albino dolphin. Center: laughing gulls. RIght: wade fishing.

PHOTO © LAURENCE PARENT; INSETS © LARRY BOZKA; ALBINO DOLPHIN © CALCASIEUCHARTERS.COM

Environmental variables rarely have long-lasting impacts on asphalt and concrete. Most damaged thoroughfares can be easily enough, if not inexpensively, repaired. The pavement cracks, a crew comes in to repair it and it's back to business.

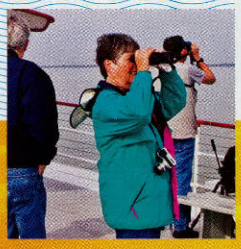
One of the most notable exceptions rests where U.S. Highway 87 meets the sand near Rollover Pass, between Bolivar and Sabine Pass. The GIWW, flowing parallel to the damaged stretch of Upper Coast beachfront highway, has been just as severely impacted

MOVING WATER IS INFINITELY POWERFUL.

by many of the same forces. It's not nearly so apparent or obvious, however, to travelers.

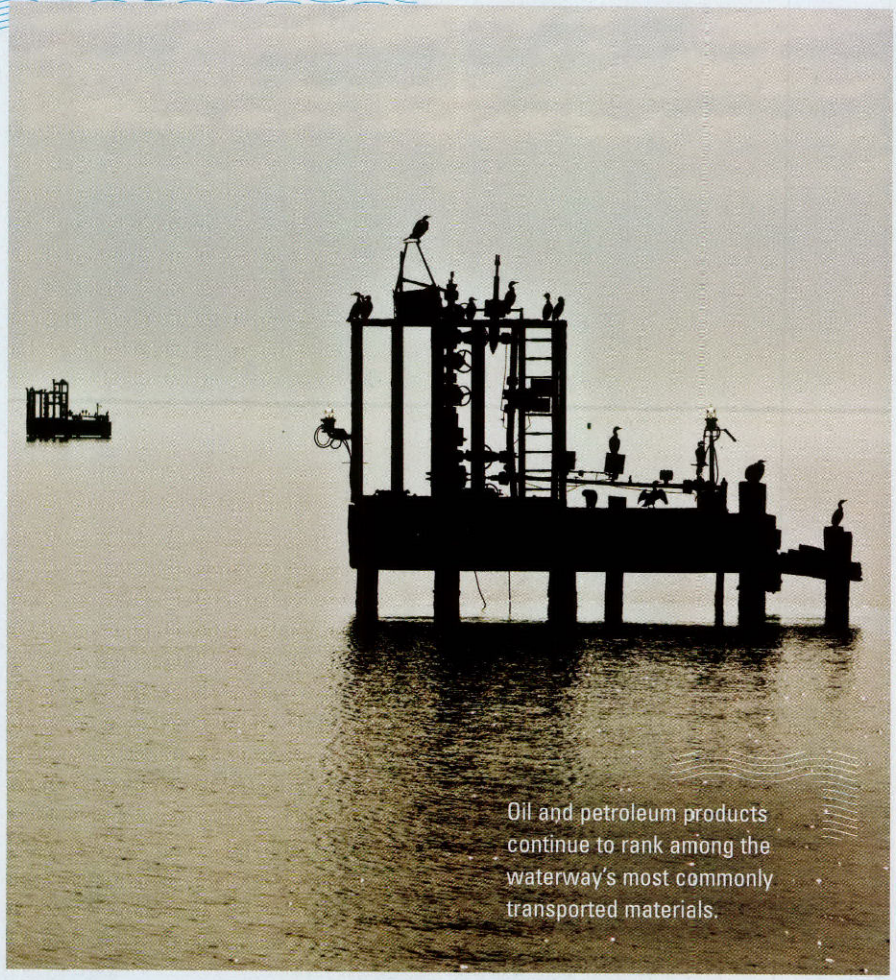
Moving water is infinitely powerful. Given enough time, river water carves canyons out of solid rock. It's no wonder, then, that the thin ribbon of sand between Highway 87 and the incoming surf has steadily deteriorated with the long-term passage of storms and hurri-

MAP BY BOGAN COOPER/TPWD



The principal fisheries product in the region is Gulf shrimp. Left: whooping crane tour. Center: green heron. Right: wetlands near GIWW.

PHOTO © LARRY DITTO; LEFT INSET © LARRY DITTO; OTHERS © LARRY BOZKA



Oil and petroleum products continue to rank among the waterway's most commonly transported materials.

canes. In some locales, the beachfront has virtually disappeared.

Mother Nature is often altogether indifferent to even the best-laid plans of man. That indifference can take a long, long time to manifest itself.

In 30-plus years of fishing the Texas coast, I've seen just about every foot of the GIWW between Sabine Pass and Aransas Pass. A trip down the lower quadrant, from the Aransas Jetties past the Lower Laguna Madre to Port Isabel and the Brownsville Ship Channel, remains an unfulfilled mission.

THE ACTUAL CHANNEL HAS REMAINED FAIRLY CONSTANT, BUT EROSION FROM TIDAL SURGES AND TRAFFIC-INDUCED WAKES HAS CLAIMED MUCH OF THE ADJACENT WETLANDS.

If history is any indicator, the aforementioned dolphin being just one example of many, a lot remains to be seen.

Some see only the tugboats and barges, the incessant commercial traffic that's the trademark of the GIWW. The potential for commerce was the key reason Congress authorized the western canal's construction in March of 1873. By 1875, the U.S. Army Corps of Engineers had completed and submitted the first plan for construction of a canal that would connect inland waters from Donaldson, Louisiana, to the Rio Grande.

The discovery of a huge oil deposit at Spindletop oilfield near Beaumont on January 10, 1901, provided substantial impetus to proceed. To this day, oil and petroleum products continue to rank among the waterway's most commonly transported materials.

Despite the growing enthusiasm for its construction, the creation of the waterway was not a one-time, all-inclusive process. For one thing, for reasons of competition, the then-booming railway industry fiercely resisted the project. Railroad companies didn't care to witness the creation of another major transportation artery, certainly not one that would flow directly to the hearts of the nation's premier ports. Some railroad companies went so far as to haul materials at a loss in their ultimately futile efforts to delay the looming development.

It took the onset of World War I to spur Congress into closing the deal for a Gulf-wide continuous waterway. With German U-boats cruising within sight of the country's shores, brazenly prowling shipping lanes on the Gulf and East Coasts, national security concerns mandated that the United States would never again be threatened by the lack of a secure inland channel.

Although national security ranked as an immediate priority, GIWW proponents had long promoted the waterway's economic merits. From a cost-efficiency standpoint, the transportation of everything from oil, gas, petrochemicals and gravel to consumer hard goods, agricultural crops and farm products can be much more viable via water as opposed to railways and highways.

Unfortunately, on land or at sea, economically motivated projects almost invariably present ecological drawbacks. In the case of the GIWW, the magnitude of the latter did not become apparent for a great deal of time. Even then, it took astute observers to fully recognize the nature and extent of the challenges.

Jim Sutherlin is the Texas Parks and Wildlife Department Project Leader for Upper Coast Ecosystem Projects. Manager of the J.D. Murphree Wildlife Management Area near Sabine Pass, Sutherlin is a professional biologist and habitat manager who by his own description is also "an amateur historian." He oversees TPWD-owned lands in Jefferson and Chambers counties and for years has closely monitored the GIWW's relationship with the terrain that it bisects between Beaumont and Galveston Island.

"The real wizards of the Intracoastal and canal projects are gone now," Sutherlin says. "I knew several of them, but they've all passed on in the last five to 10 years. Some were in their mid-90s. One, who much later in life became manager of the Jefferson County Navigation District, as a young man, worked as a surveyor between Port Arthur and Galveston. He told me what it was like working on the waterway during its early stages. They pulled the dredges with mules and used anchors and dredges to break and remove the soil.

"The canal was dredged 150 feet wide and 12 feet deep," Sutherlin explains. "Much like a modern-day highway, it was allocated a 300-foot easement. Today, the

banks have eroded to the extent that much of the GIWW between Beaumont and Galveston is 500 to 700 feet wide. The actual channel has remained fairly constant, but erosion from tidal surges and traffic-induced wakes has claimed much of the adjacent wetlands. Those wetlands, which once held fresh to brackish water, are now intertidal marsh waters.

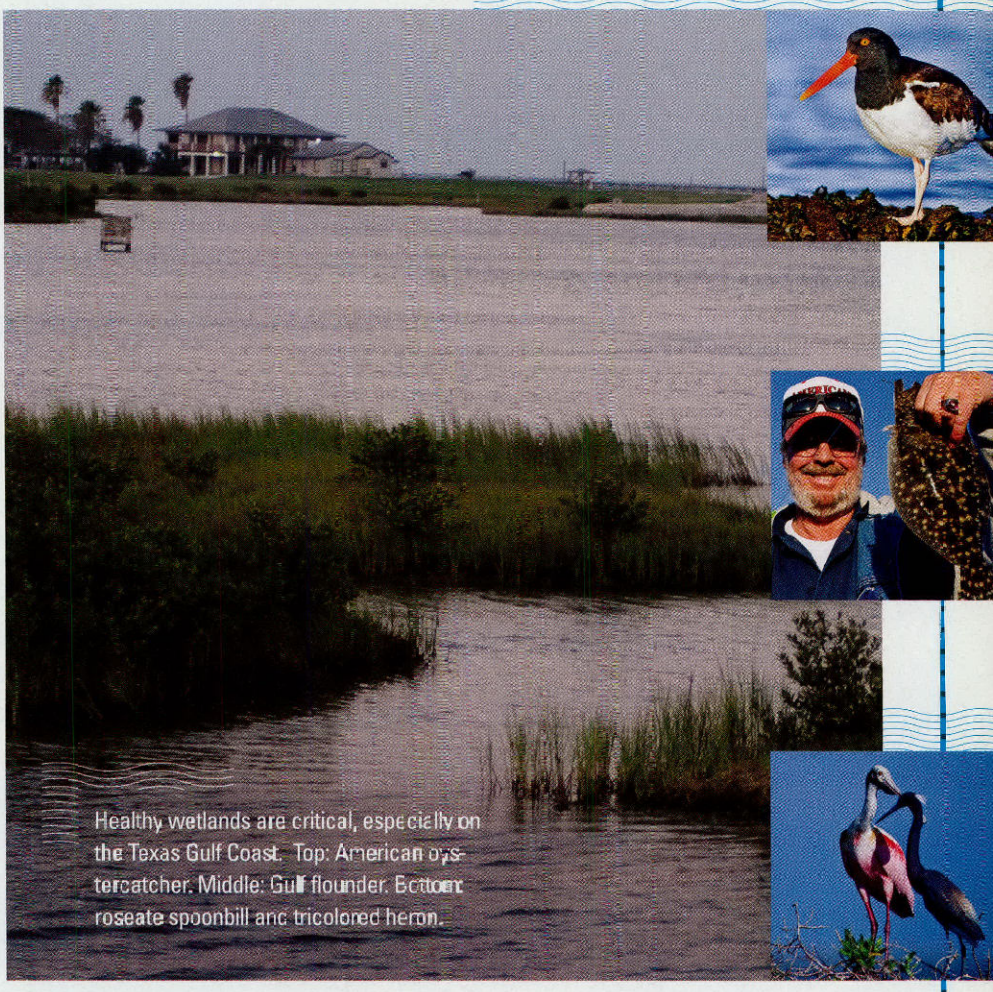
"The area is generally not salty enough to constitute oyster country, so shellfish haven't suffered much," Sutherlin continues. "But it's now too salty for a number of plant species that cannot tolerate salinities of 7 parts per thousand or more.

"Some species, including fish and shrimp, actually benefit from the change," he notes. "But it's a short-term yield. As you accelerate erosion and land and wetland loss, it's like cashing in your bank account. You can live off the interest for a long time at a set level, or you can live off the capital and live it up for a very short period of time. In this case, the benefit exists for 5 to 6 years. After that the marsh is gone and the area loses its productivity and dynamic. That's when we pay the price.

"The Upper Texas Coast is the backbone of the Central Flyway waterfowl wintering grounds," Sutherlin says. "For everything from ducks and geese to a number of waterbirds and shorebird species, vegetation and freshwater wetlands are essential habitat. As the value of the habitat is depleted, its ability to support those bird species and other wildlife in historic numbers also declines. Waterfowl 'make a living' in habitats that are very strong on the production of plants like widgeon grass, shoal grass, turtle grass and spartina. With increased salinity and dwindling vegetation, you don't get near the feed production."

Wildlife benefits aside, healthy wetlands are critical to people as well — especially on the Texas Gulf Coast, where hurricanes and tropical storms pose a continual threat. "We need to look very strongly at what that marshland means as a buffer to storm energy, its ability to protect the industrial and residential complexes inshore," Sutherlin explains.

"We have the largest contiguous coastal marsh in Texas right here in Jefferson and Chambers counties," he adds. "You hear a lot about coastal erosion in Louisiana, where it affects about 35 percent of the state. In Texas, it's less than 5 percent. It's hard to build the politics around property that constitutes such a small portion of the state. To a great degree, it's a matter of visibility and perception.



Healthy wetlands are critical, especially on the Texas Gulf Coast. Top: American oystercatcher. Middle: Gulf flounder. Bottom: roseate spoonbill and tricolored heron.

"For a lot of Texans," Sutherlin says, "it's the old 'out of sight, out of mind' adage. People have a small window when they look at this landscape. They see what they saw the first time they saw it a few years back. They watch it change. As it changes, they believe it's a natural thing. However, these marshes should be building, and they're not. In fact, they're doing the opposite."

That said, the veteran biologist and land manager readily acknowledges the strategic and economic value of the GIWW. "It's critical to our economy as a very efficient shipping venue," he says. "But it's more important than ever that TPWD, the Corps of Engineers, the Texas Department of Transportation and other agencies work together to manage what many people do not realize is critical habitat, and for a number of reasons."

The Corps of Engineers executed a project on the Murphree WMA in 1995, spending $2.5 million to replace the water-control structure at the confluence of Salt Bayou and the GIWW, originally constructed in the 1930s. It's that kind of cooperation that Sutherlin and others hope to see enhanced.

Only a few weeks ago, I came across another pod of dolphins carousing in the GIWW near the Galveston Ferry Landing. This past spring, the endangered whooping cranes that winter on the Aransas National Wildlife Refuge above Rockport were there, as they are every year, dancing along the canal's reinforced banks as the mating birds fed and flirted in the wind-blown marsh grass.

The GIWW, the wildlife species it hosts and the people who use it as everything from a commercial transport route to a fishing hole all stand to benefit through cooperative management efforts. Whether it's bank erosion or the safe and effective transfer of dredged spoil material, it's imperative that the situation be monitored more closely than ever.

Like that baby dolphin, even the Gulf Intracoastal Waterway can use a nudge of support. In a fragile environment where unforgiving forces continue to pose a perpetual challenge there's way too much at stake not to give it our collective best. ✯

PHOTOS © LARRY BOZKA

When the Rain ENDS

By Larry D. Hodge

HOW THE REMOVAL OF WATER-GUZZLING BRUSH FROM RURAL AREAS CAN HELP BIG CITIES PREPARE FOR THE NEXT DROUGHT.

TEXAS MAY HAVE PLENTY OF WATER NOW, BUT RANCHERS AND FARMERS KNOW: THE NEXT DROUGHT BEGINS THE DAY THE RAIN ENDS.

OPPOSITE BY CHASE FOUNTAIN/TPWD; THIS PAGE © WYMAN MEINZER

IT'S MID-AUGUST, AND I'M STANDING IN A PASTURE

on the Rosa Ranch in Blanco County. It should be sere and hot and thoroughly unpleasant this time of year. Instead it's green and lush. For the first time in my life, trees on the verge of fall still look fresh, not tired, dusty and droopy. Creeks in the sandy granite regions of the Hill Country are flowing. In August.

Texas. Is. Wet. Wetter than I've seen it in more than three-score years.

I spent my childhood on a sandy-land sharecropper farm in Central Texas, wearing flour-sack shirts and holey jeans and shoes during the drought of the 1950s. Only memories — of parents worn down by worry and water trucks filling up on the square in Elgin to haul precious fluid to West Texas towns with no water — keep me from feeling foolish about being here in the middle of one of the wettest years on record to write a story about how land managers can cope with drought.

Make no mistake. The old adage may be that the only things you can be sure of are death and taxes, but anyone who's spent his life in Texas knows there's a third certainty: drought. Texas is awash in water in late 2007, but ranchers and farmers know: The next drought begins the day the rain ends.

GRASS ROOTS DELVE DEEP INTO THE SOIL, HOLDING IT IN PLACE AND PROVIDING A PATHWAY FOR WATER TO PERCOLATE DEEP INTO THE EARTH.

The drought of the 1950s spurred Texans to do what some future environmental historian may label shortsighted: Instead of looking for ways to make the land better able to withstand drought and sustain them in dry times, Texans built reservoirs — a quick fix for a long-term problem. This was the latest chapter in a story that began when Europeans arrived and began to suppress fire, overgraze rangeland and disrupt an ecosystem that had developed over millennia.

Ironically, Texans built those reservoirs without realizing that a fundamental ecological shift had reached its zenith during the 1950s drought — a shift that made the very reservoirs built to deal with water shortages less able to do so. During the first half of the 20th century, the process of converting grass-covered savannas to brush-covered rangeland peaked. Seventy-five million acres, or about 80 percent, of Texas rangeland had been invaded by noxious brush (juniper, mesquite, prickly pear, salt cedar) and weeds. Land that had, when covered with grass, absorbed 80 to 90 percent of rainfall was now robbed of 75 to 80 percent by trees and brush. Springs and streams ceased to flow, and thirsty reservoirs failed to receive the expected runoff.

We used the land hard because we could get away with it without having to make too many inconvenient sacrifices. We still can — at least for now, as long as it rains when and where we need it to. The summers of 2005 and 2006 were the latest examples of dodging the bullet. As lakes in even normally wet East Texas ebbed, Texans began to face the unpleasant fact that they might have to change their wasteful ways. Texas faced a serious water crisis.

And then it rained.

And rained, and rained.

Lakes that had been empty filled. Some overflowed.

And we went back to using water like it would never run out.

THE UNITED STATES Department of Agriculture Natural Resources Conservation Service estimates that brush in Texas uses about 10 million acre-feet of water annually. In comparison, total human use in the state amounts to about 15 million acre-feet. The obvious answer to the state's water supply problems, at least in part, is to transfer water use from brush to people, but that is no simple task.

Somewhere around 95 percent of the land in Texas is privately owned. Solving the problem of public water supply inevitably means working with private landowners, if for no other reason than the fact that most rain falls on land privately rather than publicly owned.

Brush control is not the answer to everyone's water problem, but for some people it is the only answer. Mort Mertz and his son Michael ranch around San Angelo in the Concho River watershed on land that has been in the family for three generations. Mort saw brush invade their land, and he's now seeing the results of removing that brush. "Brush became a problem after World War II," he says. "After we started clearing brush, creeks started running that had not flowed in the last 25 years."

"If you don't have something sucking water out of the soil, where can it go except into the water table?" asks Michael Mertz. "We want to improve our property, and at the same time we are benefiting wildlife habitat. I don't mind spending the money if my land grows more forage and has water. Brush removal helps increase the water supply for people in cities, and that's a major plus."

Jimmy and Nancy Powell also ranch near San Angelo, and like the Mertzes they see brush removal as benefiting not only their land but also thousands of people who will never set foot on the place. Powell laces his conversation with factoids that convince listeners he's studied the problem from every angle. "I've calculated that with 18 inches of rainfall, and all the land in the Concho watershed in grasses, that would produce enough water to fill an 11,000-acre lake 60 feet deep every year — and that's enough to meet the water needs of San Angelo," he says.

"There is no immediate payback for brush control," Powell adds. "In 10 to 12 years you will, if you maintain the land properly and keep the brush off, have an immense return. But you have to maintain an investment program and have good grazing rotation to keep the grasses."

Powell sees brush control in a historical context. "We have a different set of problems than early settlers had," he points out. "They had to tame a wild country. Our problem is to deal with the changes to the landscape that followed settlement, such as overgrazing and brush encroachment. It is our obligation to find a way to solve the problem."

On the eastern edge of the Edwards Plateau, in the Hill Country, finding a way to solve the problem is made more difficult by fragmentation of land into smaller and smaller pieces. It seems that everyone wants their own piece of the Hill Country, and with raw land prices approaching $5,000 an acre, large tracts get chopped up and sold piecemeal. Leonard Hilliard and his wife, Kathy, bucked that trend by buying three pieces of adjoining property near Fredericksburg, but they are the exception.

"Everybody wants a piece of the Hill Country, and they are loving it to death," says Tom Hammer, who's spent 20 years in the Hill Country with NRCS. "Fortunately, people like Hilliard want to keep the land the way it is or improve it. They want to see the place the way it looked when the first settlers came here."

"In the 1800s soldiers traveling across this country to Fort McKavett described a vast grassland with scattered live oaks and running creeks, and that's what we're trying to get back to," Powell says as he shows us Pecan Creek, a tributary to the South Concho that now flows year-round for the first time in a quarter-century. Monarch butterflies flit across the creek on their way south for the winter, a wild turkey takes wing from a tree at water's edge, and minnows dart across the concrete slab of a low-water crossing. Without the water, none of this would happen. Without brush removal, the water would not be here.

Idyllic as the scene is, the water is only passing through on its way to a lake, where it will nurture a complex web of life before becoming someone's morning cup of coffee in San Angelo. Water, indeed, is the stuff that life is made of. It is also the tie that binds the lives of city dwellers to the lives of those who tend the land.

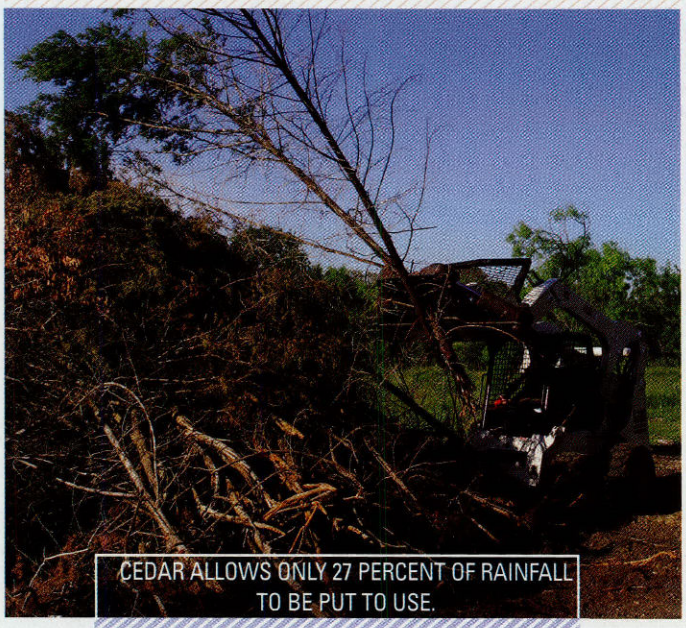
ALDO LEOPOLD, the father of modern conservation, wrote: "The practices we now call conservation are, to a large extent, local alleviations of biotic pain. They are necessary, but they must not be confused with cures. The art of land doctoring is being practiced with vigor, but the science of land health is yet to be born."

In the six decades since Leopold wrote those words, that science has been born, it's being practiced in Texas, and the next drought, when it comes, will be less severe, at least for some, because of it.

Working with ranchers are a host of resource and conservation specialists at a variety of levels of government — the land health practitioners Leopold foretold. "When we brush sculpt a place, we maintain wildlife corridors and recharge streams and aquifers," says C.A. Cowsert, NRCS district conservationist in Johnson City. "When you get more grass cover, the rainfall is filtered. You don't get as much runoff, and what does run off is good, clear water."

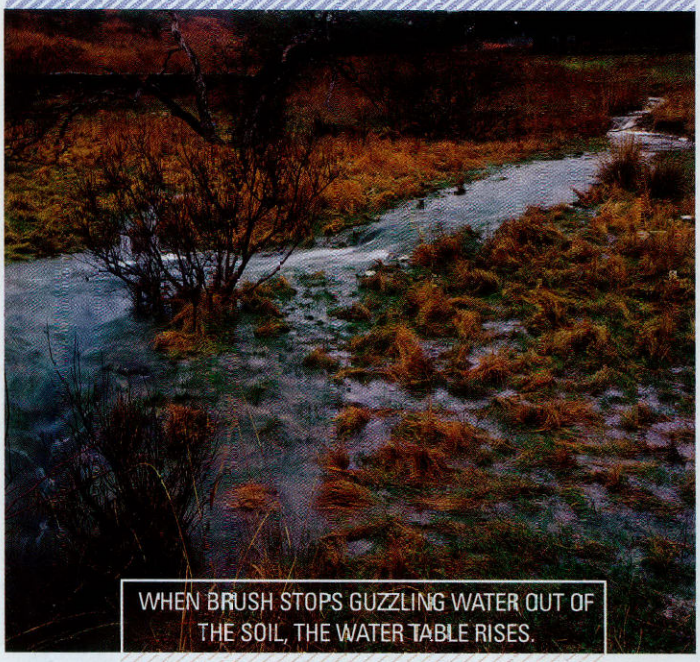
Grass roots delve deep into the soil, holding it in place and providing a pathway for water to percolate deep into the earth. Flood events become less frequent and less severe. Equally dramatic is what happens in the unseen underground. "The water level in some of our wells rose 80 feet, even before the rains in 2007," says Todd Bannert, ranch foreman for Jimmy Powell.

A 10-FOOT MESQUITE TREE CAN USE UP TO 20 GALLONS OF WATER PER DAY.

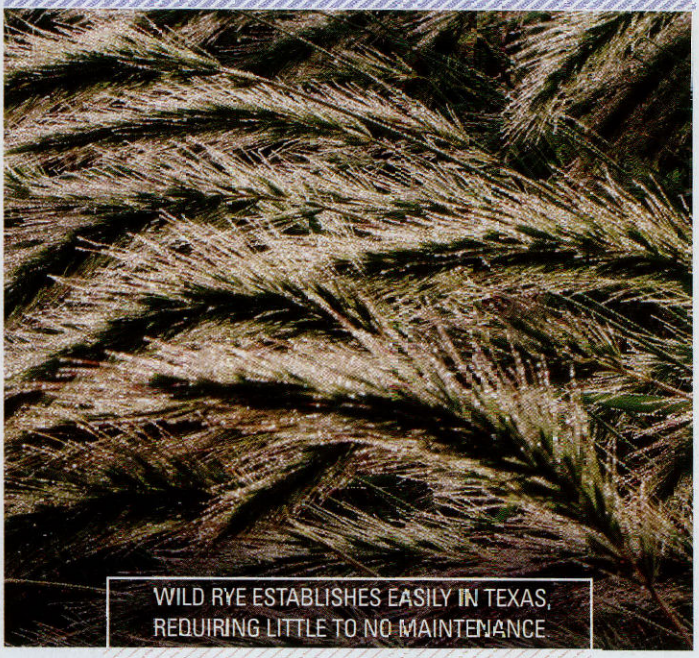


CEDAR ALLOWS ONLY 27 PERCENT OF RAINFALL TO BE PUT TO USE.

OPPOSITE & LEFT BY EARL NOTTINGHAM/TPWD; RIGHT BY CHASE FOUNTAIN/TPWD



WHEN BRUSH STOPS GUZZLING WATER OUT OF THE SOIL, THE WATER TABLE RISES.



WILD RYE ESTABLISHES EASILY IN TEXAS, REQUIRING LITTLE TO NO MAINTENANCE.

LEFT © WYMAN MEINZER; RIGHT © RUSSELL A. GRAVES

Vaden Aldridge, NRCS district conservationist in Eldorado, gets excited when he sees native grasses coming back to a pasture after it's been cleared. "The seeds are there, they just need an opportunity to breathe," he says, pointing out little bluestem, vine mesquite, Halls panicum, sideoats grama and other grasses in one of the Mertz pastures. "It opens up a whole new world when you take the brush off."

Educating landowners to what the possibilities are is a big job of the modern conservation scientist — some things have not changed since Aldo Leopold's day. "The daily challenge for us is, ranchers say, 'It's green out there, I'm going to buy some more cows,'" says George Clendenin, NRCS conservationist in San Angelo. "We really need to educate them so the next time it's green, they can make an informed decision. They need to have a grazing plan and stock conservatively to prepare for the next drought.

"By making healthy upland areas, you are also making healthy riparian areas," Clendenin continues. "In the past we did not put a lot of emphasis on riparian areas, but now we understand their importance, and they are as big a part of a management plan as upland areas."

Through the Continuous Conservation Reserve Program, NRCS helps landowners establish buffer zones. Brush is not cleared from these streamside areas, and they must be protected from grazing for 10 to 15 years, but they can be used for recreation and hunting. "Selective brush clearing as part of an overall plan is important. While it may be beneficial to selectively clear upland sites, it is equally beneficial to selectively leave brushy motts and wooded sites along creeks and draws," Clendenin points out.

Ryland Howard and his mother, Edith Boulware, manage the Head of the River Ranch near Christoval, and they have established riparian buffers along a mile and a half of the South Concho River. "It took a lot of our land out of grazing, but our philosophy has always been to take care of the land and preserve the springs that are there," he explains. "There is no question that removing water-using brush results in more aquifer recharge and stronger stream flow."

"All these programs are totally voluntary," points out Melony Sikes, an NRCS program manager in San Angelo whose passion is manag-

[BRUSH STROKES]

Not all brush is created equal, nor will clearing brush yield the same benefits in all parts of the state. Brush removal generally yields the greatest benefits where Ashe juniper ("cedar") is thickest, soils are thin and underlain by porous rock and rainfall is at least 18 inches per year. That pretty much describes much of the Edwards Plateau and West Texas, and that's where brush control efforts in Texas are concentrated.

In addition to using water itself — a 70-foot mesquite tree can use up to 20 gallons per day, a salt cedar even more — brush traps much water before it ever reaches the ground, allowing it to evaporate. Leaf litter beneath brush keeps more water from entering the soil. Cedar traps an average of 73 percent of the rain that falls; live oaks 46 percent, grass 14 percent. Put another way, cedar allows only 27 percent of rainfall to be put to use, while grass makes 86 percent available to grow plants, recharge aquifers and keep streams, springs and faucets flowing.

A study conducted by the Upper Colorado River Authority on the effects of brush removal on water yield of the North Concho watershed concluded that removing 95 percent of the brush in the watershed would result in an additional 33,515 acre-feet of water supply — more than the city of San Angelo uses annually.

Ranchers who clear brush can be reimbursed for up to half the cost through various state and federal programs, and some river authorities also offer financial aid. Costs for brush removal range from about $90 to as high as $175 per acre, so the investment for ranchers can be considerable and take years to recover. Their payoff comes in reduced feeding costs and increased grazing capacity — stocking rates can double on cleared land because it produces more grass. Many ranchers remove only a third to half of the brush, leaving the rest for wildlife habitat.

"Brush control is not a permanent fix," notes Vaden Aldridge, NRCS district conservationist in Eldorado. "It's a control measure, not an eradication program. You have to stay on top of it each year." Once brush has been cleared, periodic prescribed burns take care of most regrowth. "Proper grazing management (proper livestock stocking rates with planned pasture deferments) along with continuous retreatment are the keys for maintaining healthy rangelands and improving groundwater and surface

ing riparian areas. "Ranchers are not doing it for financial gain — they're doing it because it's good for the resource. The offsite benefits to the public are tremendous, and there is nothing prettier than a pasture full of grass that comes right up to a flowing creek."

CALVIN HARTMANN, his wife, Sonja, and his sister, Sally, operate the Rosa Ranch, a 3,000-acre jewel of a place near Johnson City. Buffalo Spring spurts from the base of a cliff on the place, feeding Buffalo Creek, a major tributary of the Pedernales River, part of the Colorado River system that supplies water to Austin and other cities. Hartmann, who is retired, spends his days pushing brush and caring for the 130 or so cows on the ranch. "My dad had a ranch, and managing the land was something we always did," he says. "We tried to help the wildlife by providing more food for them. I'm convinced that brush control helps streams flow. I've cleared 500 acres the last three years, and Buffalo Spring is really flowing. It never stopped during the last two dry summers."

Tropical Storm Erin is dumping heavy rain on us as we sit on the porch of the century-old ranch house, pounding on its tin roof. I ask Hartmann why he works so hard to send water down the Pedernales to people who will never know he's alive. He ponders for a bit before answering, as if embarrassed by what he's about to say. His answer, when it comes, gives me hope that Texas will solve its water problems: "I just love the land."

Maybe I'm a hopeless romantic, but I really do believe that love will conquer all — even cedar, mesquite, salt cedar and prickly pear. ★

DETAILS

Natural Resources Conservation Service (www.nrcs.usda.gov/)
Texas State Soil and Water Conservation Board (www.tsswcb.state.tx.us/brushcontrol)
Lower Colorado River Authority (www.lcra.org/community/conservation/creekside.html)
Upper Colorado River Authority (www.ucratx.org/)
Texas Water Matters Project (www.texaswatermatters.org/)

OUR PROBLEM IS TO DEAL WITH THE CHANGES TO THE LANDSCAPE THAT FOLLOWED SETTLEMENT, SUCH AS OVERGRAZING AND BRUSH ENCROACHMENT.

PHOTO BY CHASE FOUNTAIN/TPWD

water resources," Aldridge says. "Poor range management following brush control can offset the work that has been done. Improving herbaceous cover and maintaining that cover is the key."

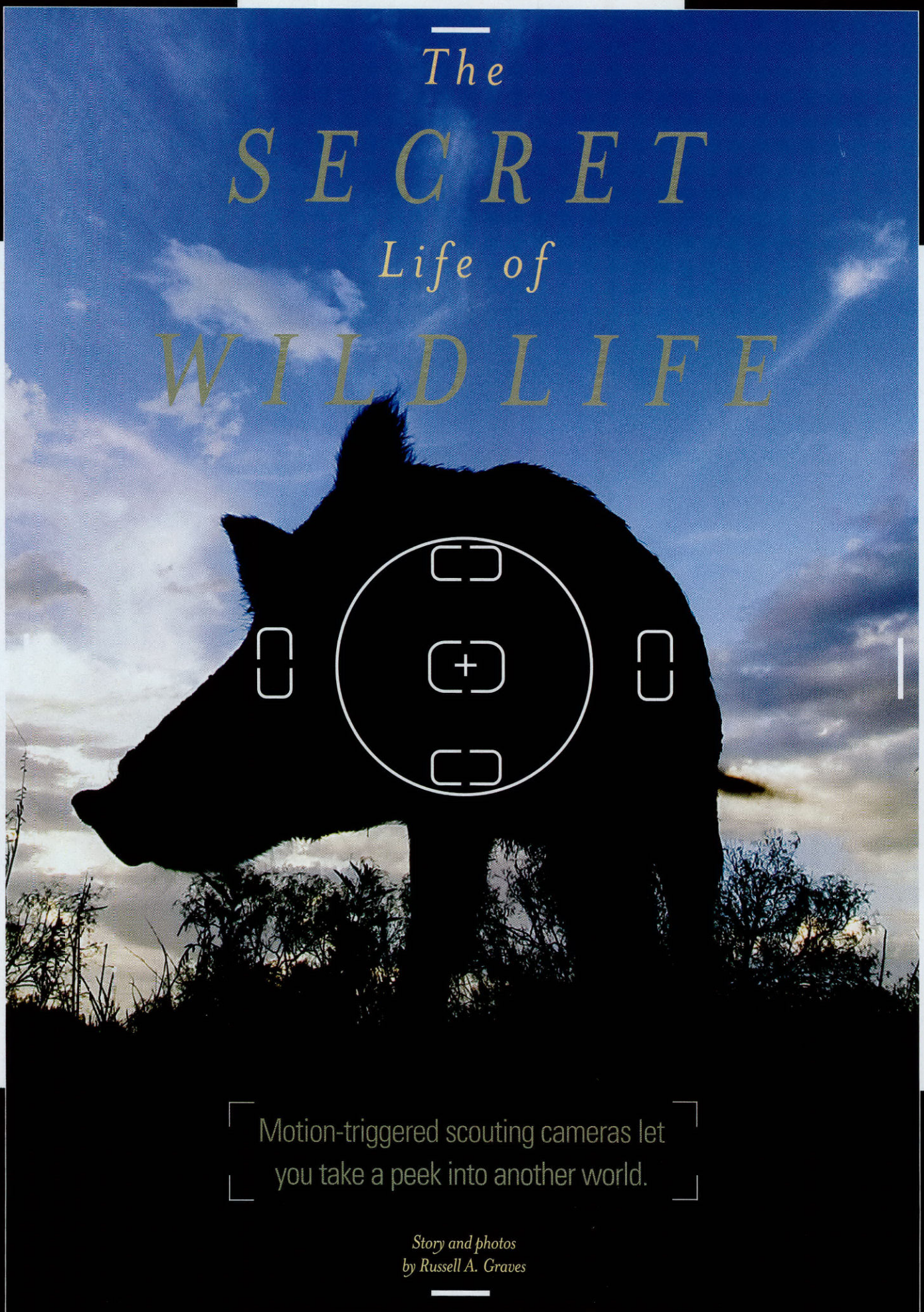
Brush removal is expensive, but it is the most cost-effective way to increase water supply. Melissa Grote, a conservation planner for the Pedernales Soil and Water Conservation District, cites figures from a study done by the Lower Colorado River Authority in 2000.

"The average cost to yield water by brush control in the Pedernales watershed is $16.41 per acre-foot," she says. "The cost per acre-foot of constructing and operating an aquifer storage and recovery system is $839." In most West Texas watersheds, the cost of additional water from brush control runs from $40 to $100 per acre-foot. At the high end of that range, that's only $0.0003 per gallon.

Benjamin Franklin said, "When the well is dry, we know the worth of water." The Texans who came before us built a great civilization based on cheap and plentiful water. What happens next is up to us.

"Unlike most other states, we control our own destiny when it comes to the future of water in Texas," says former TPWD executive director Robert L. Cook. "For all practical purposes, the following rivers and their tributaries start in Texas and flow totally through Texas to reach the Gulf of Mexico: the Devils, the Nueces, the Frio, the Sabinal, the Guadalupe, the Blanco, the San Antonio, the Lavaca, the Navidad, the Concho, the San Saba, the Llano, the Colorado, the Brazos, the Trinity, the Sulphur, the Neches and the Sabine. These are our rivers — the lifeblood of Texas — our water supply. If they get messed up or abused, it is our own fault. If they are well-managed and conserved, and if they continue to supply our vast state with an abundance of fresh, clean water for centuries to come, it will be because we made the decisions and took the actions necessary to ensure their continued health and productivity.

"We cannot control when, where or how much it rains. However, we can stop wasting water, we can protect our water supply and we can provide for our state's future water needs if we will properly manage the rangelands and the wildlife habitat of Texas. We can do it. Get involved."

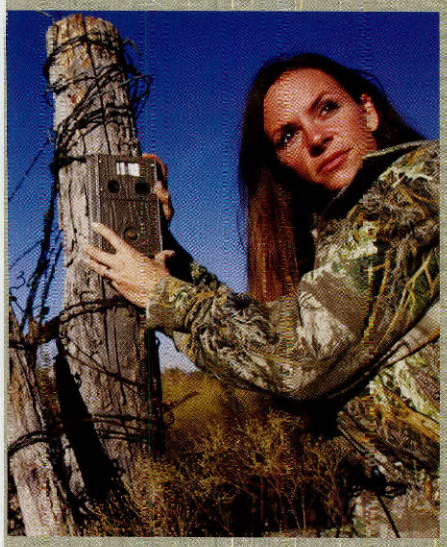


The SECRET Life of WILDLIFE

Motion-triggered scouting cameras let you take a peek into another world.

Story and photos by Russell A. Graves

ALTHOUGH MY FINGERS ARE NUMB, I try my best to fumble with the locking screw on the front of the camera. For the past week, this camera stood as a silent sentry and recorded a digital image each time an animal passed in front of its lens. Equipped with a motion-detecting sensor, a flash, and a memory card with a generous amount of space, this scouting camera never takes a break — even for weeks at a time. Right now, though, I am giving my scouting camera a rest. My curiosity is simply too much and I have to see what's been visiting the deer carcass.



Just a week before, in the dead of winter, I found a freshly deceased deer on a patch of red-dirt property south of Childress. Like others across Texas, I have always heard rumors of mountain lions roaming the brush. So with fresh bait at hand and thousands of acres of rural wilderness before me, I set up a game camera to record what animals stop and feed.

With my laptop computer in tow, I briskly march to the scouting camera I placed about 10 yards from the deer. I am surprised that the deer is gone — dragged away by something unknown. However, once I plug the card into the card reader and fire up my laptop, the mystery is over.

My take on this day includes pictures of coyotes and bobcats eating the carcass. Those scavengers were predictable. What did surprise me was when I saw the images of a big wild boar eating on the deer carcass as well. In the final few pictures I see a coyote carrying off what was left of the deer.

Scouting cameras are the ultimate utilitarian tools for the outdoor enthusiast because they are your set of eyes when you can't or won't be afield. Weather resistant and capable of storing thousands of images, scouting cameras aren't just for hunters anymore. If you love wildlife and are an amateur naturalist like me, you have to add a scouting camera to your list of "must have" equipment.

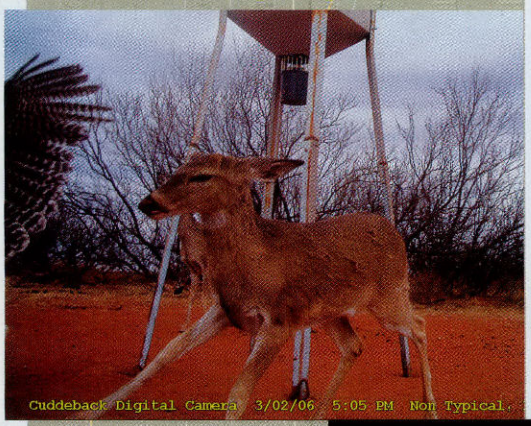
NATURE STUDY

While used commonly by hunters, game cameras have plenty of non-hunting applications as well. I often put them next to water sources to pre-scout an area for wildlife photography. Since water is a universal attractant, I can get a feel for how many species of wildlife are common on a property. Last fall, on one water trough alone, during the course of a week I recorded whitetails and mule deer, badgers, bobcats, coyotes, turkeys and raccoons. Since most scouting cameras imprint date and time information on the image, I was able to predict animals' movements and visit the water trough when animals were most likely to visit.

For wildlife photography and wildlife watching, I'll also monitor game feeders. When deer season isn't in swing, I'll still keep feeders full of corn. I monitor the feeder to predict what kinds of photo

CLOCKWISE FROM TOP: A HUNTER PLACES A GAME CAMERA ALONG A DEER TRAVEL CORRIDOR; TURKEYS FLOCK TO A GAME FEEDER; A BOBCAT FEEDS ON A DEER CARCASS; A PAIR OF WHITE-TAILED BUCKS VISIT A WATERING STATION.

CLOCKWISE FROM TOP: A WHITE-TAILED BUCK (NOTE TEMPERATURE AND MOON PHASE INFORMATION ON FRAME); BOBCAT ON THE PROWL; COYOTES SNIFF THE SITE OF A RECENTLY REMOVED DEER CARCASS; FERAL HOGS MOVING THROUGH THE WOODS; A WHITE-TAILED DEER AND A TURKEY BATTLE AT THE FEEDER. OPPOSITE: A BOBCAT STARES DOWN A FERAL HOG, TRYING TO PROTECT A DEER CARCASS.



opportunities I'll have in the near future. Once feeding patterns develop, it's easy to set up in a blind and watch whatever wanders past.

Tip: When scouting a feeding or watering area, set the camera low to the ground in order to pick up short animals like quail or badgers. Be sure to clip vegetation in front of the camera. If your camera is motion activated, weeds swaying in the wind will trip the camera.

WILDLIFE MANAGEMENT

Game cameras are a valuable tool for natural resource management as well. One of the chief uses of game cameras in a wildlife management program is determining deer populations, sex ratios and buck quality.

Research shows that one camera deployed for every 100 acres will do a good job of photographing most of the deer on a piece of property. By placing the camera near key food sources and running a census for 10 days, the camera captures up to 95 percent of the deer on the property. With the photographic data, a manager can delineate the population of bucks versus does (also known as the sex ratio). Additionally, using photos you can break a deer population into age classes.

It is possible to determine antler quality using game camera photographs. Visual estimation is one way to appraise antlers, but with software products like Trophy Score (www.trophyscore.net), you can actually measure bucks on your computer screen and produce a plausible Boone & Crockett score estimation.

Tip: If you are interested in doing a census using scouting cameras but you don't want to buy six or eight cameras, be sure to check with your local outdoor store. Many outdoor retailers offer rental units for a nominal fee.

GAME SCOUTING

Cameras placed along travel corridors or feeding locations like agricultural fields or around deer feeders may record bucks that you will never see in person. In the thousands of scouting camera images I've taken of deer, only a small percentage recorded trophy quality bucks around corn feeders. When the big bucks did come to the feeders, it was almost exclusively at night. So as I plan my hunts, I realize that it is futile to hunt for trophy bucks in my area over corn feeders. Therefore, using my "eyes in the field," I look for other opportunities that maximize my time in the field.

I like to place cameras near rubs and scrapes and other spots where I know deer frequent — like trails that lead from bedding to feeding areas. I analyze deer movements based on time information and then cross-reference the movement patterns to the moon phases. In my opinion, the more I know about how the moon influences animal movement, the better outdoorsman I'll become.

Tip: When setting up a camera along a trail or other deer sign, try to place it facing north or south for higher quality images. Facing the camera east or west can result in lens flare as the sun rises or sets.

BIRDWATCHING

Birdwatchers also benefit from scouting cameras. I love watching birds feeding in my backyard, and my scouting cameras record every species that stops in for a snack. Since most of the newer cameras are digital, you can take thousands of images at backyard feeders over the span of several days. The great thing about scouting cameras is that their small size and natural coloration make them inconspicuous to even the most skittish songbirds.

Tip: If you are using a scouting camera for birdwatching, place the camera about 10 feet away from the feeder. Placing the camera close to the feeder ensures that even the smallest bird will trip the camera's sensor. Additionally, the closer per-

spective increases the chances that the subject will be large enough in the image to positively identify it.

MAKING VIDEOS

Most digital scouting cameras on the market today give you the option of shooting video. The video captured is usually low quality and in short bursts of just a few seconds. Furthermore, video consumes lots of memory. However, small video clips are a great way for you to analyze and share the things you'll capture in the outdoors.

You can also create video by being creative with still images. With your camera delay set to one minute, deploy the camera low without trimming the weeds around the camera. Each time the winds blow the weeds the camera records an image. Over a couple weeks time, you may have a few thousand images that you can splice together to make a stop-action movie.

I use Windows Movie Maker to make my stop-action movies. The program comes pre-installed on Microsoft Windows operating systems and is easy to use. The trick to making stop action movies is to set the software to play each frame for just a tenth of a second or so. The technique is like flip-page animation. Each subsequent frame is a tad different than the one before, so when spliced together and sped up, you can see the clouds billowing and animals coming and going from a feeder.

Tip: When making a stop-action movie, go all out and add cool opening titles and closing credits. Find one of your favorite fast songs to add excitement and flair to your presentation.

CHOOSING A SCOUTING CAMERA

So you've made up your mind and you think a scouting camera is for you. Take a look at any outdoor catalog and you'll see that there are plenty of options. I use a Moultrie Game Spy I-60 because of its ease of use and a generous amount of features that suit what I need for the field. However, a feature-rich camera isn't a necessity for great scouting camera pictures. With prices ranging from around $100 to over $400, there is a scouting camera that fits nearly every need and every budget.

MEGAPIXELS

Most scouting cameras range from one megapixel to six megapixels. While megapixel counts are only part of the puzzle when predicting a digital camera's image quality, it is a good place to start. Generally speaking, the higher the count, the better image quality you'll have.

If your goal is just to digitally archive photos, low megapixel cameras will work fine. For prints and enlargements, choose a scouting camera that has more megapixels. Remember that the higher a camera's megapixel count, each image recorded on the camera consumes more memory. Therefore, for more in-field longevity without running the risk of filling up a card, causing the camera to be non-responsive for days at a time, select a memory card with one to two gigabytes of storage space.

FLASH OR NO FLASH

Search Internet forums and you are liable to see plenty of debate over the topic of whether or not scouting cameras that incorporate a flash spook animals. In my experience, I say that they don't. Using cameras with a flash I have taken multiple images of the same animal in front of the camera. Common sense tells me that if a flash did spook animals, then all I would have is one shot of a particular animal.

Nonetheless, for those who'd prefer not to take any chances with flashes, manufacturers like Moultrie and Cuddeback offer no-flash versions of their cameras that utilize infrared light to illuminate the animals at night.

OTHER EXTRAS

Camera features don't end at video capture. Movement trips some cameras while others use heat detection to initiate image capture.

Some scouting cameras go further than simply recording the date and time on an image. Moon phase and barometric pressure recorded on each frame help even the most ardent researcher or wildlife enthusiast capture the data they need to make wise and informed decisions about their outdoor adventures.

I can honestly say that using a scouting camera is a bit addictive. I often find myself wanting to go to the brush more often to check the camera or scout for a new place to put one. Some addictions can be a good thing. ✯

flying high

BY LARRY D. HODGE

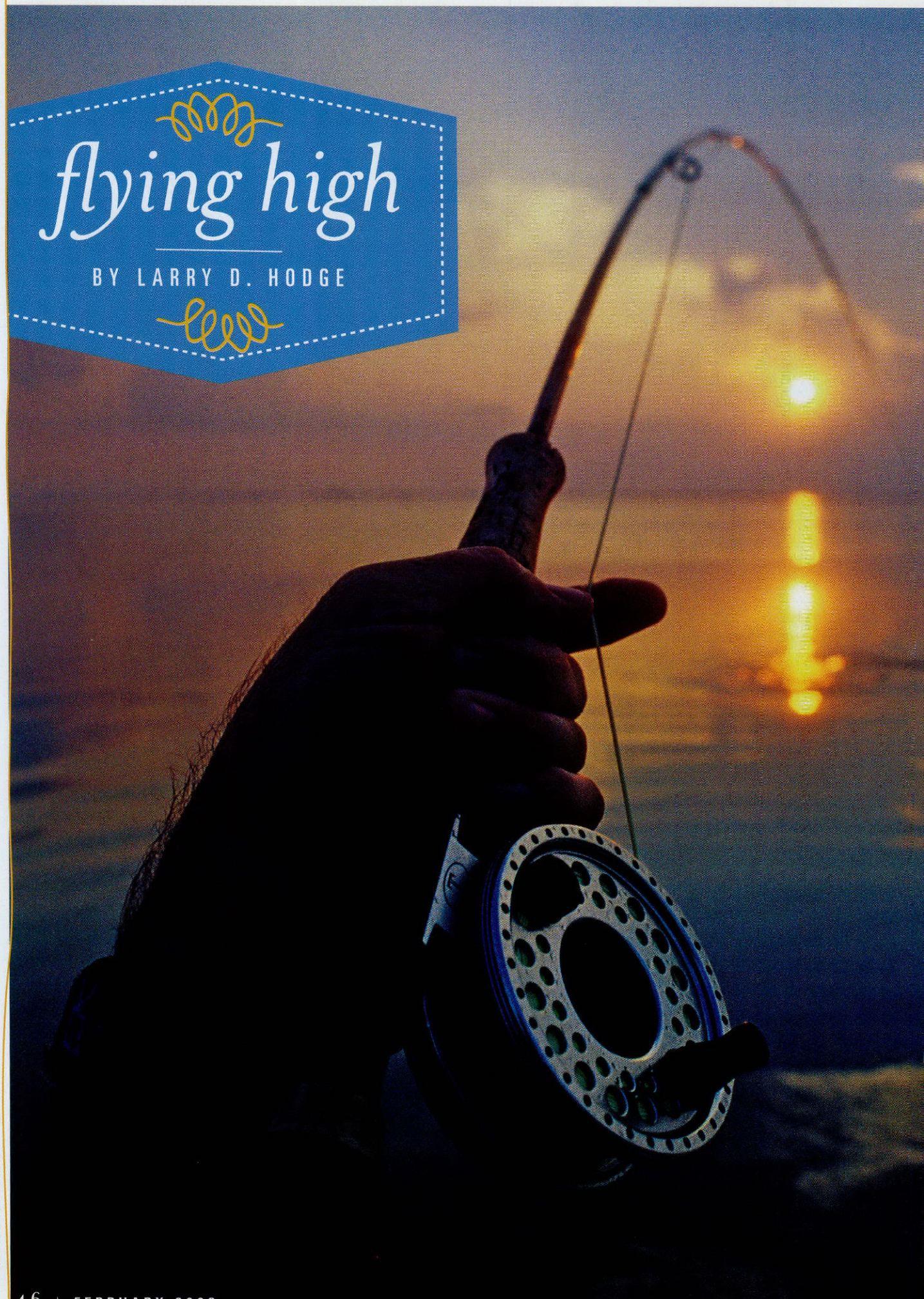
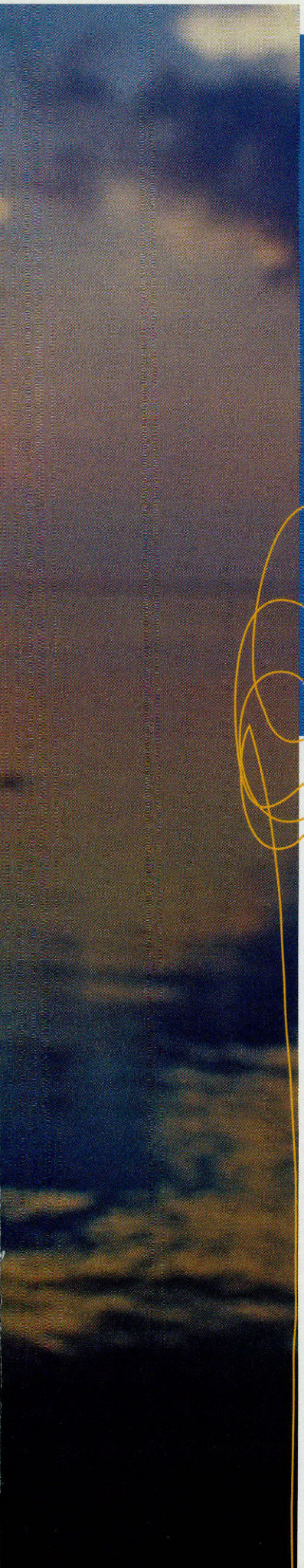


PHOTO © TOSH BROWN



FLY FISH TEXAS IS A FAMILY REUNION, A FLY-FISHING SCHOOL, A TACKLE SHOW AND A FISHING TRIP ALL ROLLED INTO ONE.

MIGHTY OAKS GROW FROM LITTLE ACORNS, and Fly Fish Texas grew out of a chance encounter between a fly-fisher teaching his grandkids to cast and a Texas Parks and Wildlife employee who thought it looked like fun.

Allen Crise was teaching his grandchildren to cast at the Texas Freshwater Fisheries Center casting pond when former TPWD employee Jinger Knight happened by. One thing led to another, and soon Walter McLendon and other members of the Piney-woods Fly Fishers committed to organizing the first Fly Fish Texas, held in 2000. The event has since introduced thousands of people to fly-fishing, many of whom shared two common misconceptions: one, that Texas is not a fly-fishing state, and two, they could not learn to fly-fish.

Neither misconception could be further from the truth, say the seasoned fly-anglers who volunteer each year to teach everything from knot-tying to two-handing casting. "I had a television impression of Texas when I lived in Michigan — hot and dry," says Allen Crise of Glen Rose, who chairs the casting classes at Fly Fish Texas with Steven Hollensed. "Then I moved to Glen Rose and took a canoe out on the Paluxy River, and that was a turning point for me. Texas has almost 200,000 miles of rivers and streams and more lakes to fish than most states. Fishing is varied and year-round. Within a morning's drive I can fish for trout, bass, bluegills, chain pickerel and striped bass, and just a little more driving can put me in saltwater fishing for redfish, spotted seatrout or any number of deepwater fish."

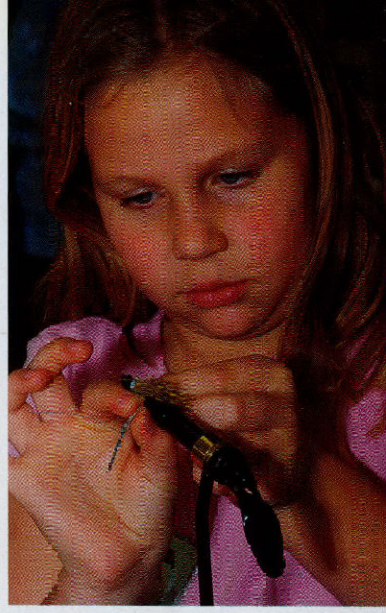
"Casting a fly is not hard to learn — that's a big misconception," adds Hollensed. "The difference in fly-casting and conventional fishing is that in fly-fishing you are casting the weight of the line as opposed to the weight of the lure or bait. You have to learn to throw the line backwards, and that goes against what people have learned in the past. But I've seen this happen a lot at Fly Fish Texas: People take a casting lesson for the first time and start forming a loop, and you can almost see the light come on in their heads. They suddenly realize they can cast a fly, they can fly-fish, and they are smiling really big. That's the best thing I can think of and that's why I feel good about Fly Fish Texas."

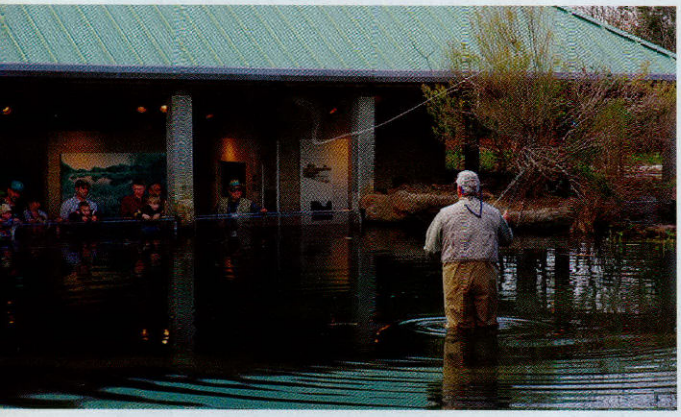
"Fly Fish Texas is a great show and the only event of its kind," says McLendon. "Other shows cater to people who are already fly-fishers, but we try to introduce fly-fishing to the public, and that is better."

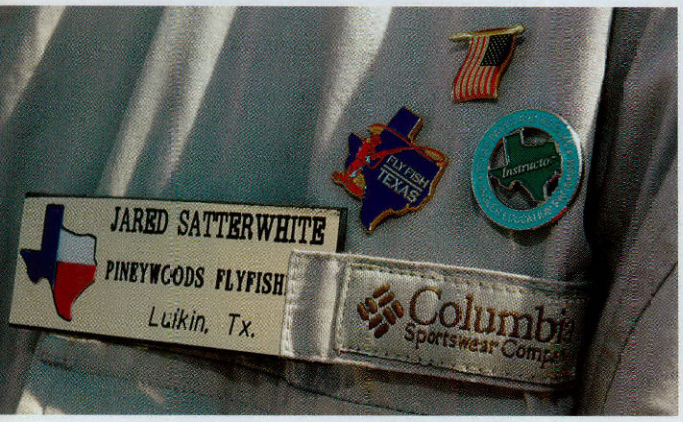
About a thousand people attend Fly Fish Texas each year, and it takes only a few hours for them to advance from rank amateur to, well, not-so-rank amateur. Colby ("Pops") Sorrells is a fly-casting and fly-tying instructor, and he's seen the magic at work. "The best thing about Fly Fish Texas is that it is made for the person who is just starting out," he says. "Once you walk in the gate, you will be immersed in the fly-fishing community. Fly Fish Texas gives the person who's been thinking about fly-fishing but never done it the opportunity to learn all about it."

"What they will find is we take them from 'This is a fly' to 'This is a fish — you've caught one,'" explains Crise. "What amazes me is it all comes together with volunteers, instructors who know every kind of fishing in Texas, from Lake Texoma to the coast."

Fly Fish Texas offers a complete course in fly-fishing. Activities include identifying aquatic organisms that fish eat (lower right, this page), tying flies to imitate those creatures, casting them into the water and catching a fish. Volunteers like members of the Pineywoods Flyfishers and Dallas Flyfishers clubs serve as instructors and also demonstrate how to catch fish in TFFC's ponds.







Volunteers at Fly Fish Texas come from all walks of life, and while some prefer fly-tying or rod-building to actual fishing, all agree on the rewards of teaching others about their passion — rewards that go far beyond landing a fish using a fly you tied yourself. "I used to teach fly-tying at the Bass Pro Shop in Grapevine," says Sorrells. "I had a man and his son attend from the time the boy was about 11 until he was 14. At the last class, the father told me, 'You could not believe the impact you've had on this kid. He was just about to get into trouble, but once we started attending the fly-tying class, all that went away.' Instead of going down a bad path, that kid went down a good path. Any time you are sharing your information and knowledge and doing something positive with them, that's the reward, and you especially see that with kids. If you take them fishing, you won't have to fish them out of trouble."

For many people, fly-fishing morphs from a way of fishing into a way of living. "We've had a lot of people who started out at Fly Fish Texas tying and went on to become well-known tiers or instructors," says Crise. "When I started there, I was just a caster, and I've now gone all the way through to becoming a master instructor — one of only three in Texas — certified by the Federation of Fly Fishers. Fly Fish Texas had a big part in that. Fly-fishing has taken over my life. I had to retire so I could take up teaching fly-fishing."

Crise's life is not all work and no play, however. "What I get out of fly-fishing is oneness with nature," he says. "Fly-fishing is very peaceful, very quiet. I worked in a nuclear power plant, and fishing was my pressure relief, my time to relax. Plus fish don't live in ugly waters."

Beauty is important to fly-fishers, from the tiny barbed imitations of fish food they create from feathers, hair and assorted yarns and thread to the action of fishing itself. "A couple of things influenced me to take up fly-fishing," muses Holensed. "When I watched a good fly-caster the first time, it really struck a chord with me, because it was a beautiful thing to watch. I instantly wanted to be able to cast like that. I love to teach fly-casting. A good casting instructor can have you casting fast, and that is the point of our instruction at Fly Fish Texas. By the time beginners are through with the class, they should be able to form a loop, make a cast and retrieve line as well as know how to fight a fish on a fly rod."

Fly Fish Texas focuses on helping people master the set of skills required for fly-fishing. "Many Scout groups use the event as part of their merit badge quest," Sorrells points out. "Instructors hold classes throughout the day on everything from fly-casting to fly-tying to knot tying. This is a hands-on event, and visitors are expected to participate. True beginners can join one of the casting classes where rods and reels are

BEAUTY IS IMPORTANT TO FLY-FISHERS, FROM THE TINY BARBED IMITATIONS OF FISH FOOD THEY CREATE FROM FEATHERS, HAIR AND ASSORTED YARNS AND THREAD TO THE ACTION OF FISHING ITSELF.

provided. Classes are offered on particular casting problems, how to set up tackle, fly selection and more. Seminars give information on subjects ranging from how to fish specific bodies of water to tips and techniques for fishing for different species. Skilled fly-tiers make flies all day long. Anyone wanting to learn how can give it a try themselves or simply watch."

One of the things that makes Fly Fish Texas so popular with beginners and experts alike is that the Texas Freshwater Fisheries Center has several ponds and streams stocked with rainbow trout, largemouth bass, sunfish and channel catfish, and you can tie a fly, walk 50 steps and catch a fish with it. "Since Texas has very little trout water, this is often the only opportunity many anglers have to fish for them," Sorrells says. "The trout are eager to feed, and most are taken on bead-head nymphs. Fly Fish Texas provides a little fix for the trout-fishing addict."

Fly-fishing isn't just for trout anymore, Crise says. "Fly-fishing has come to be any water, any fish, not just trout," he says. "We can fly-fish year-round in Texas, in three or four different kinds of water. Texas pond bass are my favorite. They grow big, are aggressive and are fun on a fly rod. My second choice is Texas spotted bass in rivers. I go down on the Llano River quite often for Guadalupe bass and Rio Grande perch, and I also fish for striped bass on Lake Texoma."

The tourism campaign that labels Texas "A Whole Other Country" falls short when it comes to fly-fishing — Texas is like a whole bunch of other countries. Once you've mastered the basics of fly-fishing, a world of new experiences awaits. "One of the most fulfilling things you can do is catch a fish on a fly you have tied," says Hollensed. "Tying a fly produces a fish. Casting produces a fish. Fly-fishing removes a lot of the high-tech aids in catching fish. There is more of a direct connection between the fish and the angler."

When it comes to the outdoors, connection is a powerful word. The connection Hollensed speaks of is not tethered by the fly line but is instead the invisible bond formed when human and animal lives intersect, even if only long enough for a living, breathing water-dweller to be brought to hand, admired and returned to the depths. It is that connection to wild things and wild places we seek when we fish, rather than the fish itself.

Human connection to the outdoors involves conscious conservation as well as conscientious consumption, principles unique to our species. In that sense, fly-fishing may be one of the purest expressions of what it means to be human. ✯

DETAILS

Fly Fish Texas 2008 will be held at the Texas Freshwater Fisheries Center on March 8, 2008. For an event program, vendor information and directions to TFFC, go to <www.tpwd.state.tx.us/spdest/visitorcenters/tffc/> and click on the "Fly Fish Texas" link.

To explore fly-fishing opportunities in Texas, visit the TPWD Angler Education pages at <www.tpwd.state.tx.us/learning/angler_education/learn-fish.phtml>.

Other helpful sites and fly-fishing clubs:

www.fedflyfishers.org
www.texasflyfishing.com
www.dallas-flyfishers.org
www.pwff.org
groups.msn.com/TheFlyFishingBug
www.rrff.org
www.fortworthflyfishers.com
www.bvffonline.org
grtu.org
www.alamoflyfishers.org
www.ctff.org
www.texasflyreport.com
www.texasoutside.com/HoustonFlyFishers.htm
www.easttexasflyfishers.org
groups.msn.com/montgomerycountyflyrodders/_homepage.msnw?pgmarket=en-us
www.totalflyfishing.com/index.php/fly-fishing-destinations/texas

PHOTOS BY LARRY HODGE/TPWD

ILLUSTRATION © BOGAN COOPER/TPWD

Freed But Not Free

Freedmen settlements founded after the Civil War gave African-Americans in Texas a taste of independence.

By Elaine Robbins

St. John Colony, 10 miles northeast of Lockhart, doesn't appear on highway maps. In fact, if you didn't know what you were looking for, you'd cruise right past this quiet hamlet, marked only by a few scattered houses and two Baptist churches set amid the rolling pasture and post oaks.

But on Sunday mornings, when worshippers gather at St. John Regular Baptist Church and lift their voices in praise, the community seems to spring to life. There's Clayton Hemphill, 65, his brother Andrew Hill, 73, and sisters Colean Demps, 68, and Luruce Tennon, 70. These siblings are descendants of John Winn, a freed slave and preacher, who in 1872 led a wagon train of freed slaves to settle in this remote spot on the Bastrop-Caldwell County border. "We was poor people," says Hemphill. "We had a hard time. But the Lord blessed us."

St. John Colony is one of more than 400 freedmen settlements established in Texas in the decades after the Civil War. For freed slaves in Texas in the wake of the Civil War, the jubilation of Emancipation was short-lived. Turned loose in the Jim Crow-era South without assets or credit, they struggled to survive amid discrimination and the constant threat of violence. Most fled to find jobs and opportunities in the North. Those who stayed became sharecroppers. Crowded into dingy one-room shacks in situations some likened to slavery, they became trapped in a cycle of perpetual debt. Others worked for white farmers, in some cases their former owners.

BY CARVING OUT AN EXISTENCE OUTSIDE OF AN OPPRESSIVE SOCIETY, THE FREEDMEN LEFT A SHINING LEGACY OF PRIDE AND SELF-SUFFICIENCY FOR THEIR DESCENDANTS.

But a significant minority made a different life for themselves. For many people emerging from the trauma of slavery, owning land embodied the idea of freedom. And impressively, against huge odds, in the decades that followed the Civil War, many freed slaves achieved that dream. In 1870, just 839 blacks owned farms in Texas. By 1890, that number had soared to 12,513.

Some settled in segregated quarters on the edge of white cities, where resistance to black land ownership was less fierce than in rural areas. Places like Dallas' Deep Ellum and Houston's Fifth Ward, which produced such jazz and blues musicians as Blind Lemon Jefferson, Sam "Lightnin'" Hopkins and Arnett Cobb, started as freedmen's towns. The Austin area had more than a dozen of these enclaves; the tony, historic Clarksville neighborhood is the only one that has survived. Residents of these urban enclaves could walk to jobs in the city as maids and laundresses, barbers and railroad men, carpenters and laborers.

But others managed to buy or squat on land in the eastern half of Texas — land that whites considered too remote or prone to flooding. "Most land in freedmen's settlements was unplatted and unincorporated," says Thad Sitton, co-author with James H. Conrad of the book *Freedom Colonies: Independent Black Texans in the Time of Jim Crow* (University of Texas Press, 2005). "They were established in creek and river bottoms and along county lines, on wilderness or neglected land, land that was never devoted to cotton farming." There, they built their own churches and schools and planted crops. In these rural freedmen settlements, they intentionally lived under the radar of mainstream soci-

ety. By carving out an existence outside of an oppressive society, they left a shining legacy of pride and self-sufficiency for their descendants.

"Most of these communities went unnoticed by their contemporaries," says Sitton. "They were communities of avoidance and self-segregation where residents adapted to Jim Crow not by moving north but by keeping to themselves. They did as little business as they could at the county courthouse."

In these settlements, with names like Bethlehem, Mount Olive, Pleasant Grove and Sand Hill, residents lived off the land. They grew peas and sweet potatoes and raised chickens, hogs and wild turkeys. They set out lines for fish and hunted. "Animal trapping seemed a black specialty," wrote Sitton and Conrad. Young men trapped bobwhite quail and white-tailed deer and caught opossums and rabbits in sacks. Cotton was often grown for extra cash.

Although they scraped together little more than a subsistence living, they offered their children a rich inheritance: a sense of self-worth and self-reliance. This legacy first became clear to Lareatha Clay, an African-American and former commissioner of the Texas Historical Commission, when she interviewed her father and mother about their different childhood experiences.

"My father came from a sharecropping family in Louisiana," she says. "He talked about how they had to work for this person, how mean people were, how the school for black kids only went to the fifth grade." But in Shankleville, the freedmen settlement near Houston where her mother grew up, "they would talk about how they would start churches and start schools and pool their money to buy land. It wasn't like, 'We don't have any control over that.' It was a real community. That was the first time it hit me how different their views of growing up were."

By the 1940s and '50s, many of these communities fell into decline or disappeared altogether. During the Depression and World War II, many residents found jobs elsewhere and never returned. Others lost their land through fragmentation among many descendants or through legal trickery.

A few, however, had an unlikely comeback. In 1978 Winnie Martha Moyer, 63, moved back to Antioch, a nearly abandoned community less then a mile outside Buda along Old Black Colony Road. "Today six sisters, one brother, one great-granddaughter and four grandnephews and grandnieces live in eight mobile homes on 10 1/2 acres left behind when the family moved to Arizona in 1955," chronicled Robert Gee in the *Austin American-Statesman* in 2000.

Many freedmen settlements may be gone, but they are not forgotten. At annual reunions, many held on Juneteenth, descendants return from across the country for a day of churchgoing, picnicking and reminiscing.

By all accounts, it's a legacy worth preserving. Clay, who a few years ago got her mother and then herself admitted as the first African-Americans in the Daughters of the Republic of Texas, understands the importance of this proud heritage. "As people in the older generation die off," she says, "we want the kids to continue to have the feeling that it can be done — that you can overcome odds." ✯

(Continued from page 23)

husband and I marveled at the incredibly starry sky, the barred owl hooting in the distance and the fact that we actually needed a jacket in Texas in August.

We started our third day with another swim and took turns snorkeling in the clear waters. Late morning, we headed the few blocks into town and stopped at the very urbane Utopia Joe's coffee shop, filled with bright paintings and cozy places to sit. A fellow customer, picking up some sweets for the Tuesday women's group, invited us to view the wonderfully renovated Methodist Church around the corner, originally built in 1866.

On the main drag, we stopped at what looked like a permanent garage sale but was actually the entrance of Heaven's Landing — a junk shop, florist, video rental, toy store and ice cream stand where there was truly something for everyone. Just up the street, we found Hidden Treasures resale shop, where we bought a small owl sculpture as a souvenir. The thrift store junkie in me was pleased to see that even Utopia's general store had a section in the back for old junk.

For lunch we were torn between Hick's House, a bakery and restaurant in an old renovated house, and Chiquita's Mexican Restaurant. I let the kids choose where we would eat, and after running into Hick's House for a look at the menu and a jar of homemade pomegranate jelly, I was sorry they had chosen Mexican. I savored the Hick's House menu of sandwiches and salads and vowed to return.

That night we headed to Concan for a last night's stay at Neal's Lodges on the Frio River. As it was the last week before school, the crowds were thick and the place had the feel — and the bugs — of a summer camp. The river was flowing fast and a late afternoon tubing expedition proved to be a little bit more than we bargained for — a few of the rapids had to be walked. My kids definitely deserved some sort of merit badge for that ride.

The next morning, before heading for home, we stopped for a quick swim at Garner State Park and were once again thankful for our Texas State Parks Pass, which affords us the ability to pop into a state park without a day-long commitment.

We loved our time in Utopia and left knowing we would definitely return. We love the way the rivers serve as a lifeline and infuse everyone there with an appreciation and connection to the outdoors — whether it's fishing, swimming, boating or just enjoying the view. And, while we couldn't agree on our favorite pie, we could all agree that Utopia is perfectly named. ✯

DETAILS

- **Utopia on the River Bed and Breakfast (830-966-2444, www.utopiaontheriver.com)**
- **Rio Frio Lodging (830-966-2320, www.friolodging.com)**
- **Neal's Lodges (830-232-6118, www.nealslodges.com)**
- **Hill Country Adventures (830-966-2320, www.hillcountryadventures.com)**
- **Crider's Frio River Resort (830-232-5584, www.cridersonthefrio.com)**
- **Garner State Park (830-232-6132, www.tpwd.state.tx.us/garner)**

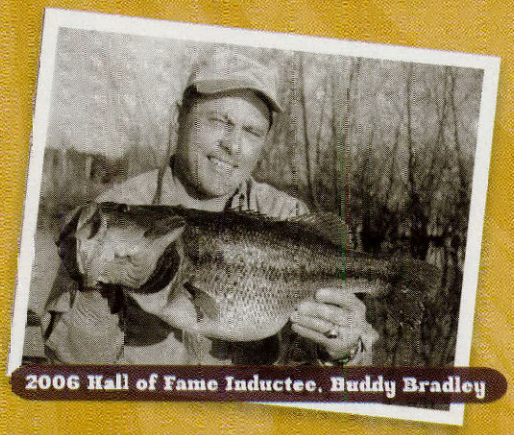
Texas Freshwater Fishing

HALL OF FAME

CALL FOR ENTRIES

WE'RE FISHING FOR ALL-STARS

Do you know someone who has created a lasting beneficial impact on fishing or fisheries management in Texas? Then help them get the recognition they deserve in the Texas Freshwater Fishing Hall of Fame.



2006 Hall of Fame Inductee, Buddy Bradley

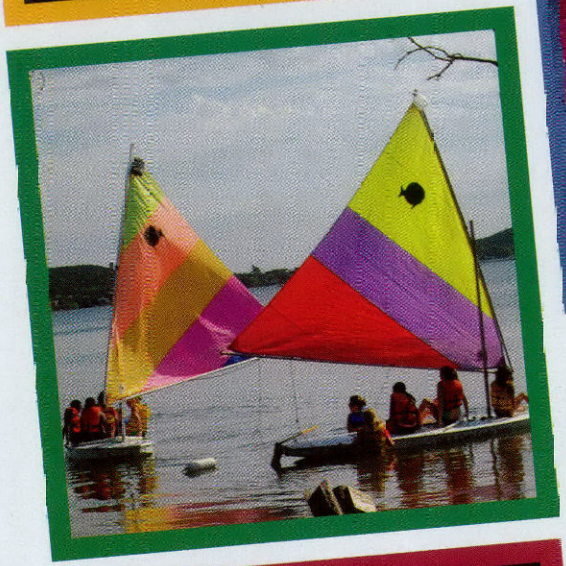
The nominee chosen by the independent selection committee will be formally inducted during the annual Hall of Fame banquet at the Texas Freshwater Fisheries Center in Athens in June 2008.

To nominate your Hall of Fame inductee:
Go to the Texas Parks and Wildlife Department Web site at **www.tpwd.state.tx.us/tffc** or call the Texas Freshwater Fisheries Center in Athens at **(903) 676-2277**.
Deadline: February 29, 2008

TEXAS PARKS & WILDLIFE

TEXAS FRESHWATER FISHERIES CENTER

SUMMER CAMP GUIDE



THE APPROACH OF SPRING MEANS ONE THING TO KIDS: It's almost time for summer vacation. For parents, this means now's the time to enroll kids in a summer camp that will transform boredom into learning and adventure. Not sure where to begin? Our guide contains listings of different summer camps around Texas that will help your kids explore and enjoy the outdoors. Whether you're looking for day camps for youngsters or an eight-week excursion for older kids and teens, you'll be sure to find camps that suit your children's interests. The guide includes camps that offer traditional activities like canoeing, swimming and archery, along with more specialized camps that focus on biology studies, fishing and hunting skills, or adventure activities like rock climbing and caving. One camp serves children with special needs.

Our guide gives only a sample of what each camp has to offer. For more details and pictures, visit the Web sites of the camps that spark the curiosity of you and your children. But act quickly – many camps have spring application deadlines and fill up fast. We hope you and your kids are happy campers when summer arrives!

NORTH

FORT WORTH

▲ Camp Carter YMCA

Traditional camp activities include horseback riding, archery, sailing, riflery, skeet, hiking, biking and swimming. Adventure trips available for older campers.

Who: **Boys/girls; ages 6–16**
What: **Overnight and day camp**
When: **One-, two-week sessions; June-August**
Cost: **$160-$850 (financial assistance available)**
Contact: **(817) 738-9241; <www.campcarter.org>**

GRAFORD

▲ Camp Grady Spruce (YMCA)

Main Camp caters to boys ages 7-12; same-age girls go to Ray Bean Camp. Frontier Camp (coed, ages 13-16) offers water sports, horseback riding and rock climbing at Lake Mineral Wells.

Who: **Boys/girls; ages 7–16**
What: **Overnight camp, 5- to 21-day sessions. Day camp, five-day sessions**
When: **June-July**
Cost: **$125-$1,500 (financial assistance available)**
Contact: **(866) 391-7343, (940) 779-3411; <www.campgradyspruce.org>**

SOUTH

CORPUS CHRISTI

▲ Texas State Aquarium Seacamp

Educational programs — on site and via field trips — teach kids about marine life, wetlands, fishing, conservation and more.

Who: **Boys/girls; ages 6–16**
What: **Day camp**
When: **One-week sessions; June-August**
Cost: **$130-$210**
Contact: **(361) 881-1204; <www.texasstateaquarium.org>**

PORT ARANSAS & GALVESTON

▲ Texas Surf Camps

Learn to surf at Quicksilver/Roxy summer surf camps. Instruction in surfing, plus ocean education and awareness. All equipment provided.

Who: **Boys/Girls 5–18**
What: **Day Camp (overnight opportunities available)**
When: **One week sessions; June-August**
Cost: **$295**
Contact: **(361) 749-6956 <www.texassurfcamps.com**

WEST

FORT DAVIS

▲ Prude Ranch Summer Camp

Horses and riding dominate the schedule at this historic family ranch. Other activities include riflery, crafts, swimming, nature study, archery, tennis and more.

Who: **Boys/girls; ages 7–16**
What: **Overnight camp**
When: **One- and two-week sessions; June-July**
Cost: **$600-$1,200**
Contact: **(800) 458-6282, (432) 426-3202; <www.prude-ranch.com>**

EAST

BAYTOWN

▲ Summer Science Camp

Weekly sessions offer in-depth studies on birding, fishing, wildlife, water use and art. Held at the Eddie V. Gray Wetlands Center.

Who: **Boys/girls; ages 9–15**
What: **Day camp**
When: **One-week sessions; May-August**
Cost: **$100 (scholarships available)**
Contact: **(281) 420-7128; <www.baytown.org>**

EUSTACE

▲ Ski 'n SCATS

Campers do it all here: skiing plus S.C.A.T.S. (sailing, canoeing, archery, team building and swimming).

Who: **Boys/girls; ages 5–16**
What: **Overnight camp**
When: **One-, two-week sessions; June-August**
Cost: **$475-$810-$1,840**
Contact: **(903) 425-7115; <www.skinscats.com>**

COLUMBUS

▲ Outdoor Texas Camp

Hunting and fishing. Camps include bass/fly fishing, fly tying, shotgun, archery, riflery, kayaking, outdoor survival, game calling, dog training.

NEW 2008 SALTWATER CAMP - Corpus Christi, Texas.

Who: **Boys/girls; ages:**
Fishing camp 9–17
Hunting camp 10–17
Saltwater camp 12–17
What: **Overnight camp**
When: **One-, two-week sessions; June-August**
Cost: **$975 to $1,050**
Contact **(512) 217-1587; (830) 562-3354 <www.outdoortexascamp.com>**
(see ad on page 58)

MARSHALL

▲ Camp Fern

Campers can canoe and ski on Lake Fern. Other activities include horseback riding, swimming, riflery, fencing, archery, nature studies, crafts and lots of sports.

Who: **Boys/girls; ages 6–16**
What: **Overnight camp**
When: **Two-, four-week sessions, June-August**
Cost: **$1,600-$2,700**
Contact: **(903) 935-5420; <www.campfern.com>**

SPRING

▲ Camp Pine Tree (YMCA)

This camp hosts "mini" three-night sessions for first-time campers. Activities include horseback riding, canoeing, fishing, archery, crafts, swimming and hiking.

Who: **Boys/girls; ages 5–11**
What: **Overnight camp**
When: **Mini- and one-week sessions; June-August**
Cost: **$275-$397**
Contact: **(281) 353-6229; <www.ymcacamppinetree.org>**

(continued on page 58)

SIGHTS AND SOUNDS

THE FRONT LINE OF NEWS AND VIEWS

TELEVISION

LOOK FOR THESE STORIES IN THE COMING WEEKS:

Jan. 27–Feb. 3:
Protecting water with conservation easements; Inks Lake State Park; discovering the geology of Big Bend; bird beaks; tracks at Dinosaur Valley.

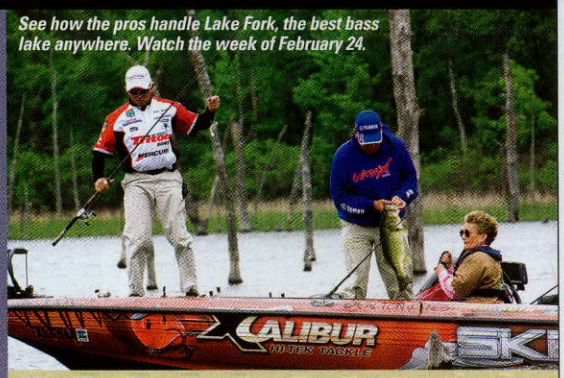
Feb. 3–10:
Walking the walk on water conservation; Lake Brownwood State Park's rustic beauty; working the spring white bass run; river access rules; the green scene at Gorman Falls.

Feb. 10–17:
A virtual tour of the Devil's Sinkhole; the legacy of Mother Neff; quail, a question of habitat; master naturalists; playing at Palmetto.

Feb. 17–24:
Squirrel hunting with the family; Cedar Hill State Park, an urban nature preserve; wildflowers, the legacy of Lady Bird Johnson; venomous snakes; Sea Rim State Park sunset.

Feb. 24–March 2:
Pro bass fishing on Lake Fork; migrating to Falcon State Park; master naturalists; the benefits of managed fire; Texas reef fish.

See how the pros handle Lake Fork, the best bass lake anywhere. Watch the week of February 24.



"TEXAS PARKS & WILDLIFE"

Winner of 12 Emmy Awards, our television series is broadcast throughout Texas on local PBS affiliates. In stereo with closed captions.

<www.tpwd.state.tx.us/tv>

AMARILLO: KACV, Ch. 2 / Sat. 6 p.m. (Oct. – March)
AUSTIN: KLRU, Ch. 18 / Sun. 9 a.m. / Mon., Fri. 5:30 a.m; KLRU2, Cable Ch. 20 / Tues. 11 p.m.
BRYAN–COLLEGE STATION: KAMU, Ch. 15 / Sun. 5 & 10:30 p.m.
CORPUS CHRISTI: KEDT, Ch. 16 / Sun. 12 p.m.
DALLAS–FORT WORTH: KERA, Ch. 13 / Sat. 6:30 p.m. (Oct. – March)
Also serving Abilene, Denton, Longview, Marshall, San Angelo, Texarkana, Tyler, Wichita Falls, Sherman
EL PASO: KCOS, Ch. 13 / Sat. 4:30 p.m.
HARLINGEN: KMBH, Ch. 60 / Sun. 5 p.m.
Also serving McAllen, Mission, Brownsville
HOUSTON: KUHT, Ch. 8 / Sat. 3 p.m.
Also serving Beaumont/Port Arthur, Galveston, Texas City, Victoria
KILLEEN: KNCT, Ch. 46 / Sun. 5 p.m. Also serving Temple
LUBBOCK: KTXT, Ch. 5 / Sat. 10 a.m.
ODESSA–MIDLAND: KPBT-TV, Ch. 36 / Sat. 4:30 p.m.
SAN ANTONIO/LAREDO: KLRN, Ch. 9 / Sun. 1 p.m.
WACO: KWBU, Ch. 34 / Sat. 3 p.m
PORTALES, NEW MEXICO: KENW, Channel 3 / Sun. 2:30 p.m.
Also serving West Texas and the Panhandle region.
THE NEW YORK NETWORK: NYN / Thurs. 8:30 p.m. / Sat. 2:30 p.m.
Serving the Albany area.

Check local listings. Times and dates are subject to change.

RADIO

"PASSPORT TO TEXAS"

Your Radio Guide to the Great Texas Outdoors

Join host Cecilia Nasti weekdays for a 90-second journey into the Texas Outdoors. Producer and host: Cecilia Nasti, (512) 389-4667. Check the following listing for a station near you. Listen Monday–Friday unless indicated otherwise. Or listen on the Web any time:

<www.passporttotexas.org>

ABILENE: KACU-FM 89.7 / 7:06 a.m., 1:46 p.m., 6 p.m.; KWKC-AM 1340 / 6:29 a.m.
ALPINE: KSRU-FM 90.1 / 2 p.m Mon., Wed., Fri.; KVLF-AM 1240 / 7:10 a.m. ; KALP-FM 92.7 / 7:10 a.m.
AMARILLO: KACV-FM 89.9 / 12:23 p.m.
AUSTIN: ESPN Radio-AM 1530 / 9:20 a.m Sun.; KITY-FM 102.7 / 5:15 a.m., 1:15 p.m., 3:15 p.m., 9:15 p.m.
AUSTIN AMERICAN-STATESMAN'S INSIDE LINE: (512) 416-5700 category 6287 (NATR)
BEAUMONT: KLVI-AM 560 / 5:20 a.m.
BIG SPRING: KBST-AM 1490 / 10:55 a.m.; KBST-FM 95.7 / 10:55 a.m.
BONHAM: KFYN-AM 1420 / 6:40 a.m.
BRADY: KNEL-AM 1490 / 7:20 a.m.; KNEL-FM 95.3 / 7:20 a.m.
BRYAN: KZNE-AM 1150 / 4:45 p.m.
BURNET: KITY-FM 106.1 / 5:15 a.m., 1:15 p.m., 3:15 p.m., 9:15 p.m.
CANTON: KRDH-AM 1510 / 9:20 a.m.
CARTHAGE: KGAS-AM 1590 / 12:30 p.m.; KGAS-FM 104.3 / 12:30 p.m.
CENTER: KDET-AM 930 / 5:27 p.m.; KQSI-FM 92.5 / 5:27 p.m.
CHALK HILL: KZQX-FM 104.7 / 10:20 a.m., 4:20 p.m.
CISCO: KCER-FM 105.9 / 12 p.m.
CORPUS CHRISTI: KEDT-FM 90.3 / 4:34 p.m.; KFTX-FM 97.5 / 5:30 a.m.; KLUX-FM & HD 89.5 / throughout the day

SIGHTS & SOUNDS

CROCKETT: KIVY-AM 1290 / 8:20 a.m., KIVY-FM 92.7 / 8:20 a.m.

DALLAS: KHYI-FM 95.3 / 6 a.m. Sat.; KXEZ-FM 92.1 / 7 a.m., 5 p.m.

DENTON: Apostle Internet Radio, www.apostleradio.org / 2:10 p.m.; AIRtunZ.com, www.airtunz.com / 2:10 p.m.

DIMMITT: KDHN-AM 1470 / 10:30 a.m.

EAGLE PASS: KINL-FM 92.7 / 12:25 p.m.

EASTLAND: KEAS-AM 1590 / 6:50 a.m., 5:15 p.m.; KATX-FM 97.7 / 6:50 a.m., 5:15 p.m.

EL CAMPO: KULP-AM 1390 / 2:35 p.m.

EL PASO: KTEP-FM 88.5 / 12:15 p.m. Thurs.

FAIRFIELD: KNES-FM 99.1 / 6:47 a.m. Sat.

FLORESVILLE: KWCB-FM 89.7 / 1:30 p.m.

FORT STOCKTON: KFST-AM 860 / 7:10 a.m.; KFST-FM 94.3 / 7:10 a .m.

FREDERICKSBURG: KITY-FM 101.3 / 5:15 a.m., 1:15 p.m., 3:15 p.m., 9:15 p.m.

GAINESVILLE: KGAF-AM 1580 / 8:45 a.m.

GRANBURY: KPIR-AM 1420 / 3:30 p.m.

GREENVILLE: KGVL-AM 1400 / 8:50 a.m.

HARLINGEN: KMBH-FM 88.9 / 4:58 p.m.; KHID-FM 88.1 / 4:58 p.m.

HEREFORD: KPAN-AM 860 / 2:50 p.m.; KPAN-FM 106.3 / 2:50 p.m.

HILLSBORO: KHBR-AM 1560 / 9:30 a.m.

HOUSTON: KILT-AM 610 / between 4 a.m. and 6 a.m. Thur.-Sun.

HUNTSVILLE: KSHU-FM 90.5 / throughout the day

JACKSONVILLE: KEBE-AM 1400 / 7:15 a.m.

JUNCTION: KMBL-AM 1450 / 7:54 a.m., 11:42 a.m., 6:42 p.m.; KOOK-FM 93.5 / 7:54 a.m., 11:42 a.m.; 6:42 p.m.

KERRVILLE: KRNH-FM 92.3 / 5:31 a.m., 12:57 p.m., 7:35 p.m.; KERV-AM 1230 / 7:54 a.m., 11:42 p.m., 6:42 p.m.; KRVL-FM 94.3 / 7:54 a.m., 11:42 p.m., 6:42 p.m.

KILGORE: KZQX-FM 105.3/ 10:20 a.m., 4:20 p.m.

LA GRANGE: KBUK-FM 104.9 / 12:30 p.m.; KVLG-AM 1570 / 12:30 p.m.

LAKE TRAVIS: KITY-FM 106.3 / 5:15 a.m., 1:15 p.m., 3:15 p.m., 9:15 p.m.

LAMPASAS: KACQ-FM 101.9 / 8:30 a.m.

LAREDO: KHOY-FM 88.1 / 7:18 a.m.

LEVELLAND: KLVT-AM 1230 / 9:16 a.m.; KLVT-FM 105.3 / 9:16 a.m.

LLANO: KITY-FM 102.9 / 5:15 a.m., 1:15 p.m., 3:15 p.m., 9:15 p.m.

LONGVIEW: KZQX-FM 101.8 / 10:20 a.m., 4:20 p.m.

LUBBOCK: KJTV-AM 950 / overnights

LUFKIN: KYBI-FM 101.9 / 7 a.m. Sat.

MADISONVILLE: KMVL-AM 1220 / 7:45 a.m.; KMVL-FM 100.5 / 7:45 a.m.

MARSHALL: KMHT-AM 1450 / 6:25 a.m.; KMHT-FM 103.9 / 6:25 a.m.

MASON: KOTY-FM 95.7 / 5:15 a.m., 1:15 p.m., 3:15 p.m., 9:15 p.m.

MESQUITE: KEOM-FM 88.5 / 8:15 a.m., 2:30 p.m., 8:30 p.m.

MINEOLA: KMOO-FM 99.9 / 5:15 p.m.

MONAHANS: KCKM-AM 1330 / to be determined

MINERAL WELLS: KVMW-AM 1670 / 6:30 a.m.

NACOGDOCHES: KSAU-FM 90.1 / 2:45 p.m.

NEW BRAUNFELS: KGNB-AM 1420 / 5:55 a.m.

ODESSA: KCRS-AM 550 / 5:50 p.m.; KOCV-FM 91.3 / 7:35 a.m.

OZONA: KYXX-FM 94.3 / 7:54 a.m., 11:42 a.m., 6:42 p.m.

PECOS: KIUN-AM 1400 / 10:30 a.m.

ROCKDALE: KRXT-FM 98.5 / 5:04 a.m., 6:04 a.m.

SAN ANGELO: KGKL-AM 960 / 6:32 a.m., 5:40 p.m.

SAN ANTONIO: KSTX-FM 89.1 / 2:04 p.m. Tues.

SEGUIN: KWED-AM 1580 / 7:55 a.m.

SONORA: KHOS-FM 92.1 / 7:54 a.m., 11:42 a.m., 6:42 p.m.

SULPHUR SPRINGS: KSST-AM 1230 / 11:15 a.m.

SWEETWATER: KXOX-FM 96.7 / 8:40 a.m.

TEXARKANA: KTXK-FM 91.5 / 2:02 p.m.

VICTORIA: KTXN-FM 98.7 / 6:50 a.m.; KULF-FM 104.7 / 4 p.m.; KVRT-FM 90.7 / 4:34 p.m.

WACO: KBBW-AM 1010 / 3:58 p.m.; KWGW-FM 104.9 / between 4 p.m and 6 p.m.

WICHITA FALLS: KWFS-AM 1290 / 6:15 a.m., 7:54 a.m

NASHVILLE: My Outdoor TV, www.myoutdoortv.com / On Demand, 24/7

"Passport to Texas" is available at no cost to stations across the state. For information fax (512) 389-4450 or write to 4200 Smith School Road, Austin, Texas 78744, e-mail <cecilia@passporttotexas.org>.

This series is made possible in part by a grant from:

SPORT FISH & WILDLIFE RESTORATION

(from page 55)

CENTRAL

HUNT

▲ Camp Arrowhead

Campers canoe and swim in the Guadalupe River. Other activities include archery, riflery, music, horseback riding, tennis, crafts, sports, ropes course and cheerleading.

Who: **Girls; ages 6–17**
What: **Overnight camp**
When: **One-, two-, four-week sessions; June-August**
Cost: **$850-$2,900**
Contact: **(830) 238-3793; <www.camparrowhead.com>**

HUNT

▲ YMCA Camp Flaming Arrow

Traditional camp activities on the Guadalupe River (fishing, hiking, nature studies, archery and canoeing) plus trail rides and weekly themes, such as "Safari" and "Super Heroes."

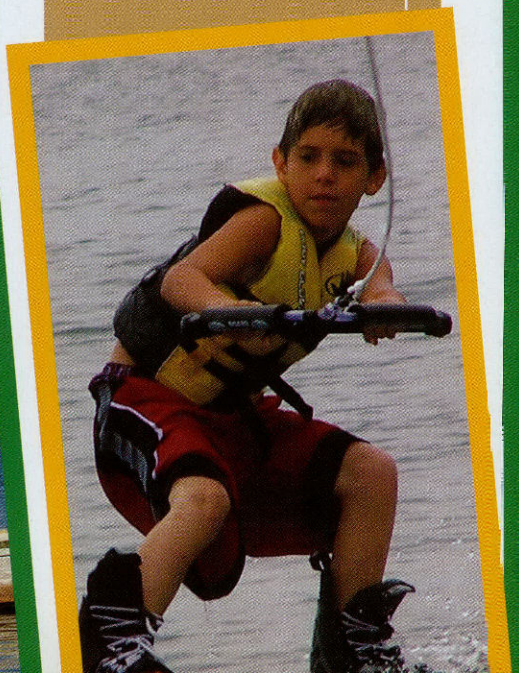
Who: **Boys/girls; ages 6–17**
What: **Overnight camp**
When: **One-, two-week sessions; three-day starter sessions; June-August**
Cost: **$200-$1,005 (financial assistance)**
Contact: **(800) 765-9622, (830) 238-4631; <www.ymcacampflamingarrow.org>**

HUNT

▲ Camp Stewart

NRA riflery, Red Cross swimming, archery, horseback riding, tennis and nature study top the variety of activities at this camp on the Guadalupe River.

Who: **Boys; ages 6–16**
What: **Overnight camp**
When: **Two-, four-, eight-week sessions; June-August**
Cost: **$1,650-$5,500**
Contact: **(830) 238-4670; <www.campstewart.com>**



HUNT

▲ Heart o' the Hills Camp

Campers may choose nine activities from a list of more than 50, including canoeing, horseback riding and swimming in the Guadalupe River.

Who: **Girls; ages 6–16**
What: **Overnight camp**
When: **Nine-day, four-, five-, eight-week sessions; June-August**
Cost: **$1,600-$7,000**
Contact: **(800) 724-7325, (830) 238-4650; <www.hohcamp.com>**

INGRAM

▲ Camp Rio Vista

Campers can choose from more than 35 activities — canoeing, kayaking, fishing, sailing, skiing, swimming, sports and horseback riding. Sister camp is Sierra Vista.

Who: **Boys; ages 6–16**
What: **Overnight camp**
When: **12-, 14-, 19-, 26-day sessions; June-August**
Cost: **$1,700-$2,950**
Contact: **(800) 545-3233, (830) 367-5353; <www.vistacamps.com>**

INGRAM

▲ Camp Sierra Vista

Campers can choose from more than 35 activities — canoeing, kayaking, fishing, sailing, skiing, swimming, sports and horseback riding. Brother camp is Rio Vista.

Who: **Girls; ages 6–16**
What: **Overnight camp**
When: **12-, 14-, 19-, 26-day sessions; June-August**
Cost: **$1,700-$2,950**
Contact: **(800) 545-3233, (830) 367-5353; <www.vistacamps.com>**

KERRVILLE

▲ Kickapoo Kamp

Enrollments are limited to ensure individual attention. Campers can select five activities per day — archery, fishing, canoeing, horseback riding, crafts, dancing, skiing, riflery, swimming and more.

Who: **Girls; ages 7–17**
What: **Overnight camp**
When: **One-, two-, three-week sessions; June-July**
Cost: **$1,055-$2,370**
Contact: **(830) 895-5731; <www.kickapookamp.com>**

KERRVILLE

▲ Texas Lions Camp

Children with disabilities, Type 1 diabetes and cancer can experience swimming, horseback riding, sports, nature studies, camping and more. Medical staff on site.

Who: **Girls; ages 8–15**
What: **Overnight camp and day camp (one session, July 18-20)**
When: **One week sessions; June-August**
Cost: **none if qualified**
Contact: **(830) 896-8500; <www.lionscamp.com>**

MANOR

Crowe's Nest Farm

Folks at this 100-acre working farm give kids hands-on lessons in botany, birds, gardening, farm animals, insects, reptiles and more.

Who: **Boys/girls; ages 5-11**
What: **Day camp**
When: **One-week sessions; June**
Cost: **$150**
Contact: **(512) 272-4418; <www.crowesnestfarm.org>**

MEDINA

Echo Hill Ranch

Horseback riding and swimming in spring-fed waters highlight activities here. There are also sports, nature study and creative arts.

Who: **Boys/girls; ages 6–16**
What: **Overnight camp**
When: **One-week, 20-day sessions; June-July**
Cost: **$925-$3,150**
Contact: **(830) 589-7739, (713) 667-9878; <www.echohill.org>**

MEDINA

Deer Creek Camp

A Christ-centered adventure camp located on the Medina River. Campers can choose from over 30 traditional camp activities including archery, canoeing, fishing, sports, rock climbing and zipline.

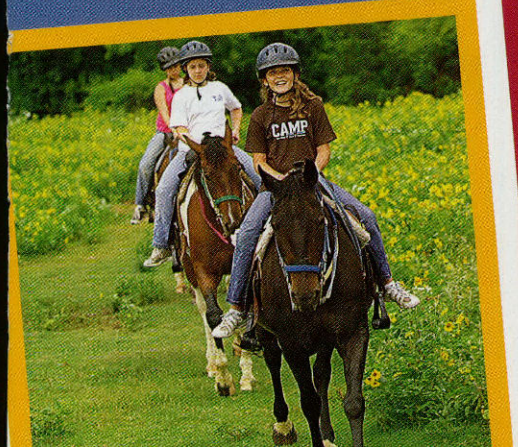
Who: **Boys/girls; ages 7–16**
What: **Overnight camp**
When: **One-, two-, three-week sessions; June-August**
Cost: **$735-$2,250**
Contact: **(830) 589-7123 <www.deercreekcamp.com.>**

NEW BRAUNFELS

Outback Adventure Camp

Team-building activities include canoeing, tubing, rock climbing, rappelling, snorkeling and caving. There's even a one-night campout at Enchanted Rock.

Who: **Boys/girls, ages 10–16**
What: **Overnight camp**
When: **One-week sessions; June-July**
Cost: **$600**
Contact: **(800) 444-6204; <www.newktennis.com/outback_adventurecamp.html>**



SAN MARCOS

Aquatic Sciences Adventure Camp

Curriculum immerses campers in aquatic biology and water chemistry activities, all led by research staff of Texas State University. Other activities include tubing, glass-bottom boat rides, scuba diving, snorkeling, rafting and swimming.

Who: **Boys/girls; ages 9–15**
What: **Overnight and day camp**
When: **Two-day, one-week sessions; June-August**
Cost: **$120-$595**
Contact: **(512) 245-2329; <www.eardc.txstate.edu/camp.html>**

WIMBERLEY

Hunters Chase Farms

Campers learn all about horse care, safety and riding techniques. Other activities include swimming, fishing, crafts, nature walks, nightly movies and more.

Who: **Boys/girls; ages 6–17**
What: **Overnight and day camp**
When: **One-week sessions; June-July**
Cost: **$250-$575**
Contact: **(512) 842-2246; <www.hunterschasefarms.com>**

WIMBERLEY

Rocky River Ranch

Campers can swim in the Blanco River, ride horses, shoot rifles and rappel. Other activities include nature study, photography, crafts, kayaking and fishing.

Who: **Girls; ages 6–15**
What: **Overnight camp**
When: **One-, two-week sessions; June-August**
Cost: **$650-$1,225**
Contact: **(800) 863-2267, (512) 847-2513; <www.rrrcamp.com>**

W.I.L.D

Wildlife Intensive Leadership Development Texas Brigades

Summer program for 13-17 year olds
An intensive hands-on program where participants learn

- Leadership & Team Building
- Public Speaking & Media Skills
- Wildlife Plant I.D. & Preferences
- Wildlife Ecology & Biology
- Habitat Management & Evaluation
- Photography, Art & Journalism

There are 6 camps held across the state in June & July. Applications will be due April 1, 2008.

For more information contact:
Helen Holdsworth
(800) 839-9453 or (210) 826-2904
www.texasbrigades.org

WIMBERLEY

John Knox Ranch

Activities include canoeing, swimming (pool, Blue Hole and river), singing, archery, arts and crafts, low ropes course, rappelling, rock climbing, Bible studies, tubing, river walks, noncompetitive games, field sports, and much, much more.

Who: **Boys/girls**
What: **Overnight (3rd grade – 12th grade) and day camps (ages 4–10)**
When: **One-week, 10-day and two-week sessions; June-August**
Cost: **$150-$600**
Contact: **(830) 935-4568 <www.johnknoxranch.com>**

GOODS AND SERVICES FOR THE OUTDOOR ENTHUSIAST

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THE INNSIDER

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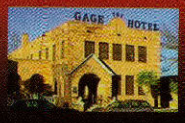
BIG BEND – MEXICO GETAWAY



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Marathon, Texas
(800) 884-GAGE
www.gagehotel.com

Villa Del Rio
Del Rio, Texas
(800) 995-1887
www.villadelrio.com

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★ **Texas Ranch Life.** Restored historic Texas homes on 1,400-acre ranch between Bellville & Chappell Hill. Weekend rental includes bass fishing, trail and chuckwagon rides, cutting, bird/coyote/raccoon hunting and cow works available.
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HUNTSVILLE

★ **The Whistler B&B** 1859 Victorian home, lovingly restored. Original antiques. Peaceful atmosphere on 3 wooded acres. Gourmet breakfast.
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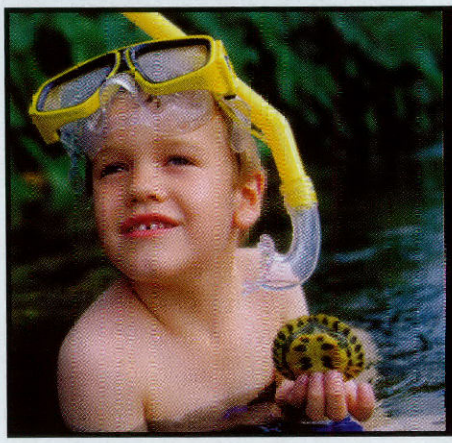

TEXAS CAMP GUIDE 2008

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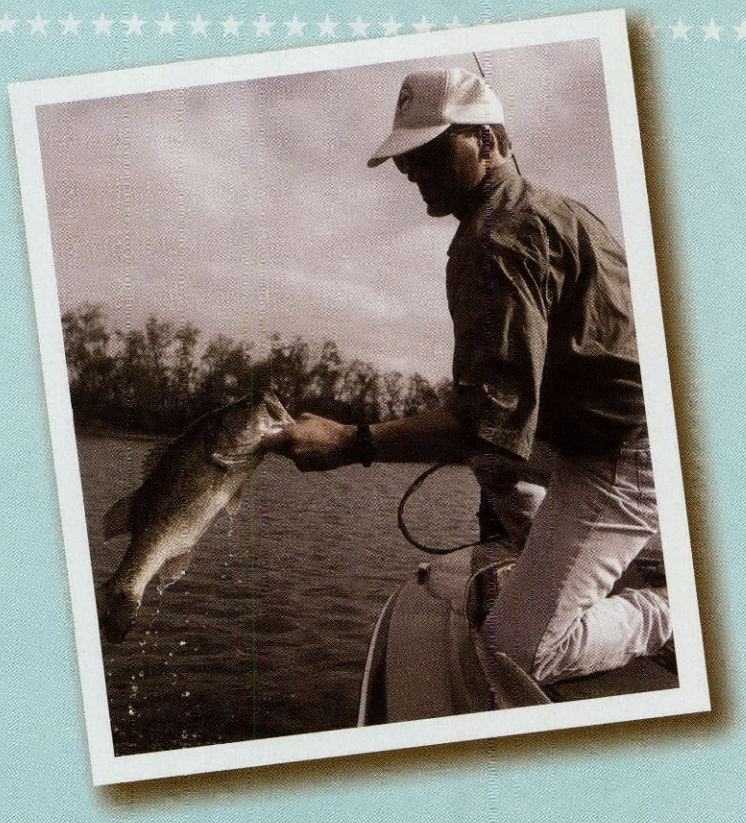
R&L BRAGGIN' RIGHTS!



If you reel in a largemouth bass weighing more than 13 pounds (a "lunker"), you can donate it to help breed bigger bass in Texas.

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Call the Budweiser ShareLunker 24-hour hotline at (903) 681-0550 and we'll come pick up your lunker anywhere, anytime.

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PARTINGSHOT

The Texas Clipper began its new life as an artificial reef 17 miles off South Padre Island in November. For more on the history of the ship, see "Clipper's Final Journey" in the September 2007 issue.

PHOTO BY CHASE FOUNTAIN/TPWD

IMAGE SPECS:
Main photo: Nikon D2X with 10mm-20mm lens, f-7.1 aperture, 1/80-second exposure, 13mm focal length, ISO 125. Insets: Same camera with 105mm lens, f-7.1 at 1,000-second exposure, ISO 400.

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