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TEXAS PARKS & WILDLIFE

MAY 1997





8 Texas's 10 Best Hiking Trails Spring is the perfect time for hiking, and here are some of the best trails in Texas, according to our readers.

18 Ditch Full-O-Fish The Brownsville Ship Channel may not be the first place you think of when planning a fishing trip to South Texas. But what the channel lacks in esthetics, it more than makes up for in saltwater fishing action for a remarkable variety of game fish. *by Phil H. Shook*

24 SOS for the RCW A spirit of compromise runs through the latest plan to head off the extinction of one of Texas's rarest birds—the red-cockaded woodpecker. *Ricky W. Maxey*

28 Four-Wheelin' Big Bend Looking for adventure? With a four-wheel-drive vehicle you can experience Big Bend National Park's vast backcountry via the unimproved dirt roads once used by early ranchers and settlers. *by G. Elaine Acker*

38 The Case of the Disappearing Crab Apples Once abundant across the Hill Country, Blanco crab apple trees now are found only in three counties. Landowners and scientists are trying to preserve the diminutive trees. *by Sheryl Smith-Rodgers*

40 Preserved Forever The idea of protecting wildlife habitat in perpetuity is the reason for conservation easements. But why would a landowner agree to severely restrict future uses of his or her land? The benefits, and the relative ease with which they can be obtained, may surprise you. *by Jeff Francell*

46 Spanish Mission Site Set for Excavation Hundreds of Texas Archeological Society Field School volunteers are set to investigate one of the early locations of Mission Espiritu Santo on the lower Guadalupe River. *by Bob Parvin*

DEPARTMENTS

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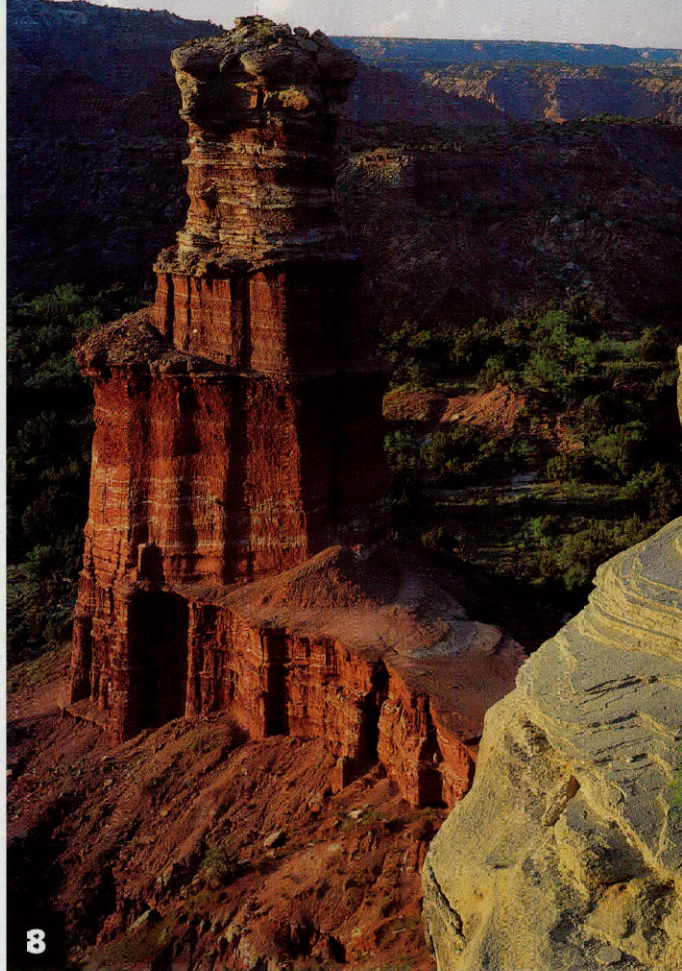
COVERS

Front Breathtaking sunsets are one of the attractions at Big Bend National Park, where some of the best hiking trails can be found. See story on our readers' favorite trails on page 8. Photo © Wyman Meinzer, Canon F1 camera, Canon 20-35mm zoom lens, 1/15 second at f8, Fuji Velvia 50 film.

Inside Front Widespread rains across the Texas Hill Country in early 1997 raise the hopes of bluebonnet lovers for more scenes like this one at Enchanted Rock State Park near Fredericksburg. Photo © Steve Glenn, Mamiya 645 camera, Mamiya 35mm 3.5 Sekor lens with 81B filter, f22 at 1/2 second, Fuji 50 film shot at ISO 40

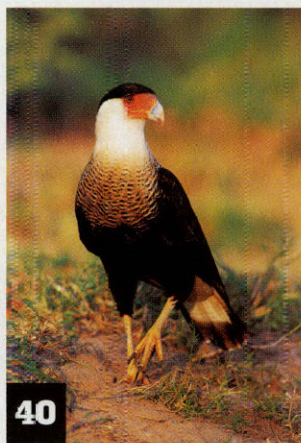
Back The American kestrel, or sparrow hawk, is a year-around Texas resident. Photo © Steve Glenn, Nikon F3 camera, Nikkor 600mm f4 lens with 1.4 extender, f8 at 1/250 second, Fuji 100 film.

For the latest and greatest parks and wildlife information, check out our website <http://www.tpwd.state.tx.us>.



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It's a privilege to walk on ground owned by W. E. Howse and his family at the Lighthouse Canyon Ranch on the rim of Palo Duro Canyon. Mr. Howse is a wonderful gentleman of the Plains who for more than 30 years has been painstakingly restoring his Potter County properties to the vigor and diversity of the original native grasslands when bison roamed and the Comanche were in charge. Nineteenth-century Texans struggled to eliminate the buffalo and the Indians and they all but extirpated the natural ecosystems. But some spectacular examples of our natural heritage remain today, thanks to private landowners such as Mr. Howse, who was named Lone Star Land Steward of the Year by the Texas Parks and Wildlife Commission.

The vision, dedication and sacrifice of private landowners is all the more critical since more than 97 percent of Texas is privately owned. All public, federal, state and local conservation entities in Texas possess, on our behalf, about 4.5 million acres. This public lands inventory places Texas in the lower ranks of states and places the future of our rich Texas natural heritage in private hands, such as those of W. E. Howse.

Inexorably, the average age of Texas landowners is increasing, and the changing goals and demands of a new generation of landowners threatens what we have left. The single greatest threat to the wildlife and natural diversity of Texas is the breakup and fragmentation of family lands brought about by inheritance taxation and other economic factors that encourage subdivision and sale. That is why Texas Parks and Wildlife, along with other public and private conservation institutions, is sponsoring a Statewide Conference on Land Trusts this June in Austin. Land trusts are private organizations that exist to promote private solutions to conservation challenges throughout the country.

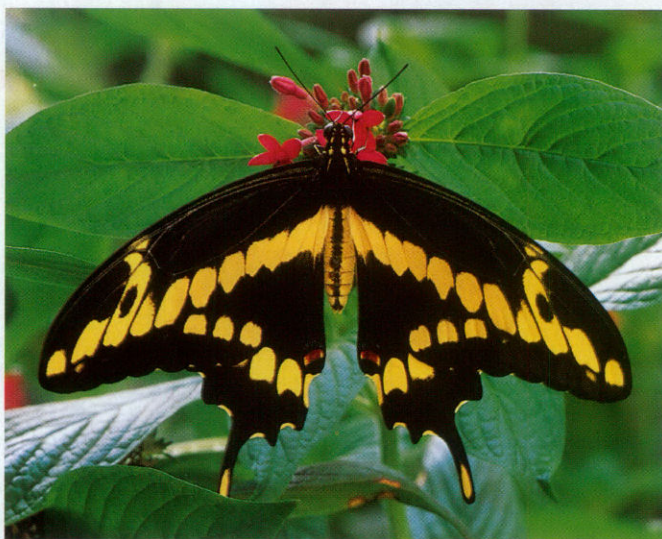
There are 23 of these unique groups now active in Texas. Among them are the Cradle of Texas Conservancy, which has helped protect 18 sites in the birthplace of Austin's colony totaling 400 acres. Farther south the Valley Land Trust has had a remarkable impact on natural and cultural conservation along the Rio Grande. In metropolitan Houston, The Bayou Lands Conservancy protects riparian habitat alongside natural streams in Harris County, and statewide the Archaeological Conservancy helps landowners protect the historical resources in their care. Thanks to emerging organizations such as these, private property owners throughout Texas increasingly have begun to employ such techniques as conservation easements to protect their lands beyond their own generation while keeping them in private ownership. Led by former Parks and Wildlife Commissioner Terry Hershey and private ranchers like Gary Schwarz, featured in this issue, private alternatives to long-term land conservation are gathering momentum.

Thanks to them and to landowners like W. E. Howse, remnant treasures of native Texas landscape remain.

This month, following our Letters to the Editor page, we introduce a new section called "Trail Mix." As the name implies, this will be a little bit of everything, from news about Texas Parks and Wildlife to news from other states to tidbits of information on just about anything. We hope you will find it interesting, entertaining and informative. We have suspended three departments we have had since 1993—Parks & Places to Go, Woods & Waters and State of Nature. But Ezra Ward's fictional "Folks at Three Corners" return this month after a temporary absence that sparked inquiries from many readers.

ANDREW SANSOM, *Executive Director*

I N J U N E



GIANT SWALLOWTAIL BUTTERFLY © STEVE E. ROSS

In June, a butterfly trilogy: how to attract them, how to participate in the annual butterfly count and which state parks you can visit to see the most butterflies.

KINGS OF THE GULF

When summer winds subside, the annual offshore fishing onslaught begins, with boats of every shape and size venturing out after the undisputed king—the king mackerel.

THE BLACK BEAN EPISODE

The macabre drawing of black and white beans to determine which Texans would be executed by the Mexican Army in 1843 is one of the most memorable events in Texas history. This history is preserved at Monument Hill State Park.

HOPPER POPPIN'

Catching catfish with yellow grasshoppers as you lazily float down a river can liven up the dog days of summer.

STAND OR FALL

Hunting stand accidents can be just as dangerous as gun mishaps.

**TEXAS
PARKS & WILDLIFE**

MAY 1997, Vol. 55, No. 5

To manage and conserve the natural and cultural resources of Texas for the use and enjoyment of future generations.

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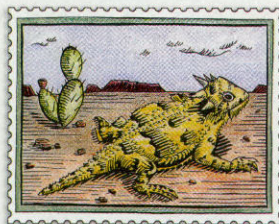
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CORRECTION

The man pictured on page 11 of the March issue was misidentified. He is Artie Hebert of Austin, a custom rod builder who holds more fish records than would fit in the picture. We regret the error.

TEXAS STATE CEMETERY

Thank you for a very interesting and enlightening piece entitled "A Stroll Through Texas's Past" (March).

You state on page 21, "But the cemetery's status as a final resting place for distinguished Texans has been established. Among the notable people buried there in the last half-century are former governors James E. Ferguson...."

I believe that your choice of words is correct since Governor Ferguson was "distinguished" as being impeached, convicted and removed from office. Also, I suppose that you could call that "notable." However, the tenor of the article seemed to be that only honorable and patriotic individuals merited burial in this cemetery. Is there some reason Mr. Ferguson was singled out as being one of those so chosen? If there is some credible reason why he was buried in the Texas State Cemetery it would be interesting to know.

If the historical rendition of events of his impeachment are to be believed, Governor Ferguson should never have been selected to share the last resting place of those who were true to their responsibilities, were honorable and dedicated their lives to this end.

John F. Lipstate
Montgomery

■ *Historian Jerry Sullivan, TPWD Interpretations and Exhibits Branch: "Your question is interesting, in that one wonders if impeachment would disqualify a person from interment in the State Cemetery. However, it seems a moot point, since he qualifies as well under the criteria of being the spouse of an elected official, Governor Miriam 'Ma' Ferguson (the last of the criteria listed on page 24 of the article). Since no one else buried in the ceme-*

tery suffered the indignity of impeachment, that issue has yet to be truly tested under the criteria you so eloquently set forth. It is certainly food for thought."

✚ I enjoyed the article on the State Cemetery renovations. I have long hoped for such an undertaking.

In the interest of accuracy, however, I wanted to point out a small error in your article, to wit: "...Battle of San Jacinto hero General John A. Wharton also was reinterred." This is not the John A. Wharton who was adjutant general to Sam Houston at San Jacinto, and brother of William Wharton. It is his nephew, John, who was a Confederate major general. He was killed at the Fannin Hotel in Houston while home on leave in 1865. John A. Wharton, "...the keenest blade of San Jacinto" died in 1838 and is buried in Founder's Memorial Park in Houston.

Bill Liles
San Antonio

■ *You are correct. And we appreciate all you Texas history buffs keeping us straight on the facts.*

TROUBLED WATERS

The two-part article "Troubled Waters" by Dr. Larry McKinney (January and February) was well-written and informative. Legislators and others contemplating massive water diversion plans would do themselves and the people of Texas well to read the article.

I have lived in Port Arthur, adjacent to the Sabine estuary, all of my life. I have seen the estuary on the critical list, near death, from industrial pollutants and municipal sewage in the past. Efforts by government agencies and environmentalists have done much to restore the health of the estuary. Now, however, the estuary is threatened by probably its most formidable opponent. The megapopulation centers to the west of the Sabine and Neches river valleys will bring to bear their considerable numerical superiority on the political process to demand the delivery of water from the basin to them for their ever-growing water needs.

The future health of the Sabine estuary, and all of Texas's estuaries, demands that decisions must be made on the basis of something more than short-term fixes and political expediency.

John Avery
Port Arthur

LAND OF DIVERSITY

➤ As a lifelong reader of your magazine, I have always appreciated your coverage of the wide and wonderful diversity of Texas's natural and cultural resources. I have seen exciting, engrossing articles on everything from birdwatching to bicycling to hunting, all of it well written and vividly illustrated.

I am sorry to see that many anti-hunting advocates have chosen your magazine as a political forum for their views. I would like to encourage your editorial staff to view these political statements for what they are: irrelevant to the format and mission of your fine magazine and no more deserving of publication than any other blatantly political statement.

Please don't leave out cycling articles or birdwatching articles, just because some of my fellow Texans can't stand bicycles or birds. And please don't forgo the hunting articles because some oppose hunting.

Welcome to Texas, the land of diversity!
John Crouchet
Austin

TOUCH OF HOME

➤ I am finishing a 34-year career in the Air Force in a few short days. The last nine years have been here in the Pentagon. One of the main things that has helped keep me focused has been *Texas Parks & Wildlife*. It has been a needed uplifting touch of home when times were rough; and a joy to share when times were good. Thank you!

My father also retired from the Air Force and settled in Kingsland, on the banks of the Llano River. I have pleasant memories of his hobbling along the river after a run of white bass. (He was a test pilot on the early jets and unpressurized cockpits at high altitudes crippled his knees, hence the hobbling.) I've seen him standing at some of the very spots your articles have shown. It brings tears to my eyes when I remember the beautiful July day when I spread his ashes along the Llano.

I am saddened by those who are canceling their subscriptions. It is their loss. And canceling their subscriptions will not help them; in fact they will lose a good source of intelligence on what their perceived enemies are doing.

I continue to buy hunting and fishing licenses because it is virtually the only reliable source of funding that ensures the

viability of our fish and wildlife. It is a small way of putting my money where my heart is.

There is a small park, Theodore Roosevelt Park, on an island in the Potomac that is a favorite for the lunchtime joggers at the Pentagon. There are granite slabs inscribed with some of the lesser known quotations of Teddy Roosevelt, in my book, the ultimate environmentalist. It is not as imposing as many of the other monuments here in our capital, but it is a place I bring our Texas visitors to see, especially the youngsters. One of the quotations that I feel is pertinent to the children is the following:

"There is delight in the hard life of the open. There are no words that can tell the hidden spirit of the wilderness or that can reveal its mystery or its melancholy and its charm. The nation behaves right if it treats the natural resources as assets which it must turn over to the next generation, increased and not impaired in value. Conservation means development as much as it does protection."

Beau Crosby
Washington, D.C. (Kingsland, Texas)

HOMESICK

➤ I would like to thank you for publishing this magazine. My family has been a long-time subscriber. Since I have been on my own and away from Texas, your magazine has been the cure for my homesickness.

I have been pretty much all over the world and can say that Texas is the place where I want to be. Sometimes it is a year between visits, and your magazine is one of the things that reminds me that Texas is not just another foreign country in my memory. Thank you for the pictures and your stories that bring Texas closer.

Brian Frick
Norfolk, Virginia

Texas Parks & Wildlife magazine welcomes letters to the editor. Please include your name, address and daytime telephone number. Our address is 3000 South IH 35, Suite 120, Austin, Texas 78704. Our fax number is 512-707-1913.

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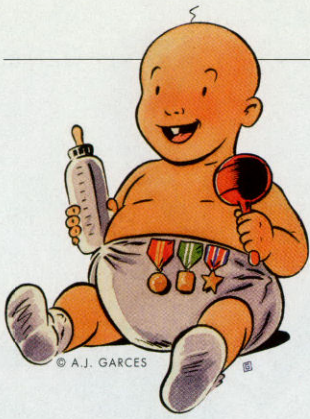
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Eisenhower's Granddaughter To Be Guest at Birthplace

Susan Eisenhower, granddaughter of President Dwight D. Eisenhower, will be speaker at a barbecue held in her honor at 6:30 p.m. Friday, May 9, at Eisenhower Birthplace State Historical Park in Denison.

Park Manager Donna Hunt said she will tell remembrances of her grandfather and sign her book, *Mrs. Ike*, written about her grandmother, Mamie Doud Eisenhower. For more information call 903-465-8908.

Recycle Those Toner Cartridges

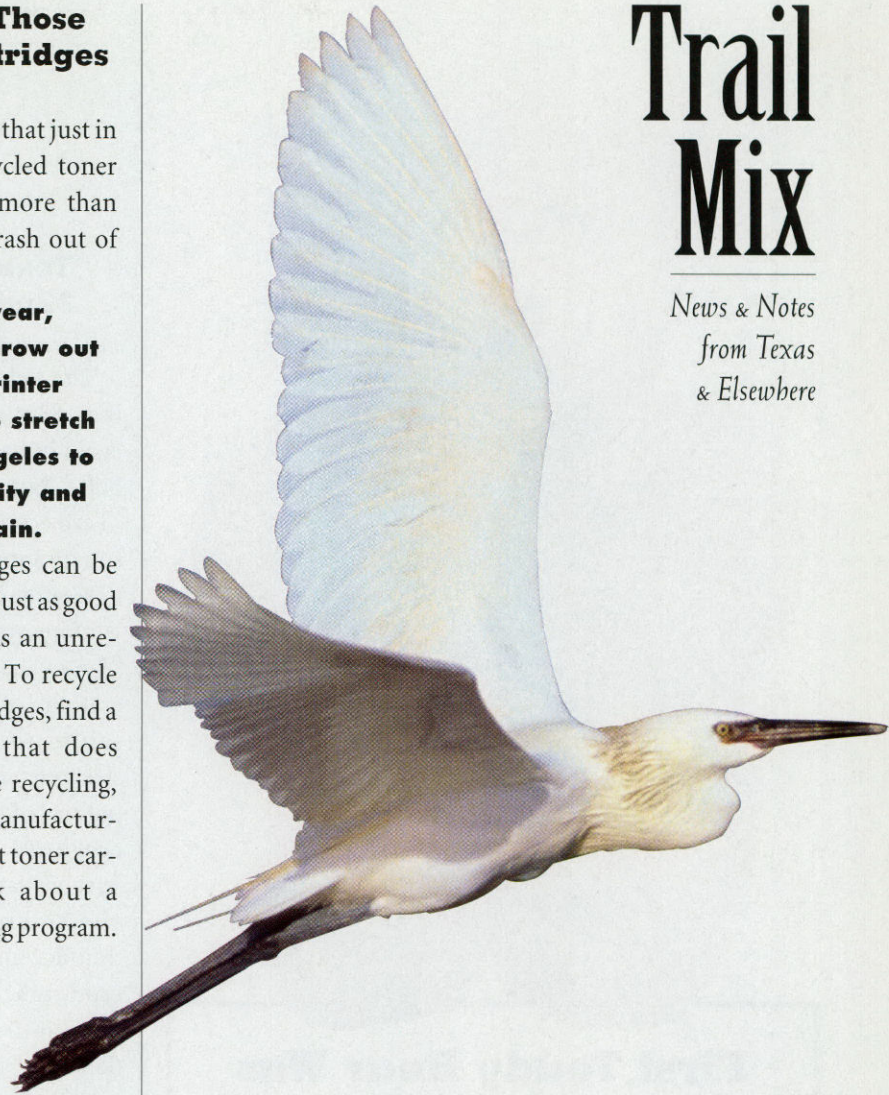
Did you know that just in 1995 alone, recycled toner cartridges kept more than 21,000 tons of trash out of landfills?

Every year, Americans throw out enough printer cartridges to stretch from Los Angeles to New York City and back again.

Toner cartridges can be recycled, having just as good a performance as an unrecycled cartridge. To recycle your toner cartridges, find a local business that does printer cartridge recycling, or contact the manufacturer of your current toner cartridge and ask about a cartridge recycling program.

Trail Mix

News & Notes from Texas & Elsewhere



Birding Flying High

The National Survey on Recreation and the Environment is out, updating information last gathered in 1982. Key findings:

- 155.2% increase in birding (since 1982)**
- 93.5% increase in hiking**
- 72.7% increase in backpacking**
- 24.5% increase in camping**
- 3.8% decrease in fishing**
- 12.3% decrease in hunting**

The survey is sponsored by several key agencies and organizations, including the U.S. Fish and Wildlife Service, the U.S. Forest Service, the National Park Service and the Sporting Goods Manufacturers Assoc. It reports the results of interviews with 17,000 people age 16 and over.



Fish Icons

This unusual painting of our state fish—the Guadalupe bass—was done by Edinburg artist Dr. Norman Alfred Browne. This is one of more than 30 species Browne has done in acrylic and metallic leaf, four of which are available for sale as prints. To see more, visit the Art Studio's website at <http://www.vt.com/artstudio/> or call 210-383-4158.



First Teddy Bear Was Given To Cheer Up a U.S. President

President Theodore Roosevelt loved to hunt, and he spent the spring of 1905 in Colorado Springs, Colorado, where the hunting was excellent. A telegraph service was set up in the Hotel Colorado direct to Washington, D.C., and the hotel became known as the "Little White House."

After hunting bears all day and having no luck, the president felt a bit depressed when he arrived back at the hotel. Some of the hotel maids wanted to cheer him up, so they gathered some scraps of cloth and stitched together a small doll in the likeness of a bear. A reporter dubbed it a "Teddy Bear" and the doll became a popular topic of conversation around the nation. Soon a toymaker began making Teddy Bears, and the rest is history.

Source: Board Report

"Texas" Opens 32nd Season

The sights and sounds of the 1880s come alive once again in Palo Duro Canyon State Park as the musical "Texas" opens its 32nd season on June 11.

Written by Pulitzer Prize-winning author Paul Green, "Texas" has delighted generations of Texans with its salute to the struggles, strengths, celebrations and politics of the early settlers, cowboys and Indians. Spectacular sound and light effects produce realistic thunder and lightning and capture the blazing beauty of a prairie fire as pioneers battle nature's elements.

The 1997 season runs through August 23. For reservations call 806-655-2181.

What a Bargain

Contributing photographer Laurence Parent returned from the Florida Keys recently, where he paid \$24 per night for a primitive campsite—just a place to set up a tent and a water tap. A KOA primitive site with water is \$36.74. But Texas campers get a bargain at state parks. Primitive campsites in the several dozen state parks that offer them run between \$4 and \$9 per night.



Tornado Capital of the U.S.

More tornadoes have been recorded in Texas than in any other state, and most of them happen between April and June. But the greatest outbreak of tornadoes on record in Texas was associated with Hurricane Beulah in September 1967, which spawned **115 known tornadoes between September 19 and September 23; 67 of them occurred on a single day—September 20, 1967.** Source: Texas Almanac

Flyfishing Show Slated at Kerrville May 3-5

The Texas Parks and Wildlife Department and a host of other organizations and experts in the field of fly-fishing will gather at Louise Hays Park on the banks of the Guadalupe River at Kerrville May 3-5 for the Second Annual Texas Flyfishing Show.



Included will be casting and fly-tying demonstrations, canoeing instruction, antique tackle, rod building, manufacturers' displays and opportunities to join various fishing and conservation organizations.

In addition to the TPWD's programs on freshwater and saltwater fishing, the Becoming and Outdoors-Woman program will offer classes especially for women.

This year's show also will have instruction for children age eight to 14 on stream biology, fishing ethics, basic equipment choices, paddling and fishing in the river.

Call 210-792-3535 for more information.

Johnson Branch Unit Opens At Ray Roberts

A major new state park for North Texas is expected to generate nearly \$2.75 million in tourism spending for the regional economy and provide a beautiful new lakeside recreation spot for people in Dallas, Fort Worth, Denton and other area communities.

The Johnson Branch Unit of Ray Roberts Lake is located on the north shore of Ray Roberts Lake. The new 1,514-acre unit offers camping, picnicking, swimming, boat ramps and trails for hiking and biking.

The park is located seven miles east of IH-35 on FM 3002 in Cooke and Denton Counties. For more information on the Johnson Branch Unit, call 817-637-2294.

"If you know wilderness in the way that you know love, you would be unwilling to let it go.... This is the story of our past and it will be the story of our future."

Terry Tempest Williams
Naturalist-in-Residence
Utah Museum of Natural History.

TPWD Seeking Volunteers for Horned Lizard Watch

Everyone loves "horny toads," but for many Texans the fierce-looking yet amiable reptile is only a childhood memory. Once common throughout the state, the Texas horned lizard has disappeared from many parts of its former range. Only in West and South Texas do populations appear to be somewhat stable.

The Texas Parks and Wildlife Department is asking you to keep your eyes open for the state reptile in hopes of better understanding some of the factors associated with its decline. A new program called **Texas Horned Lizard Watch** is one of several new opportunities for public participation in wildlife monitoring offered by the department.

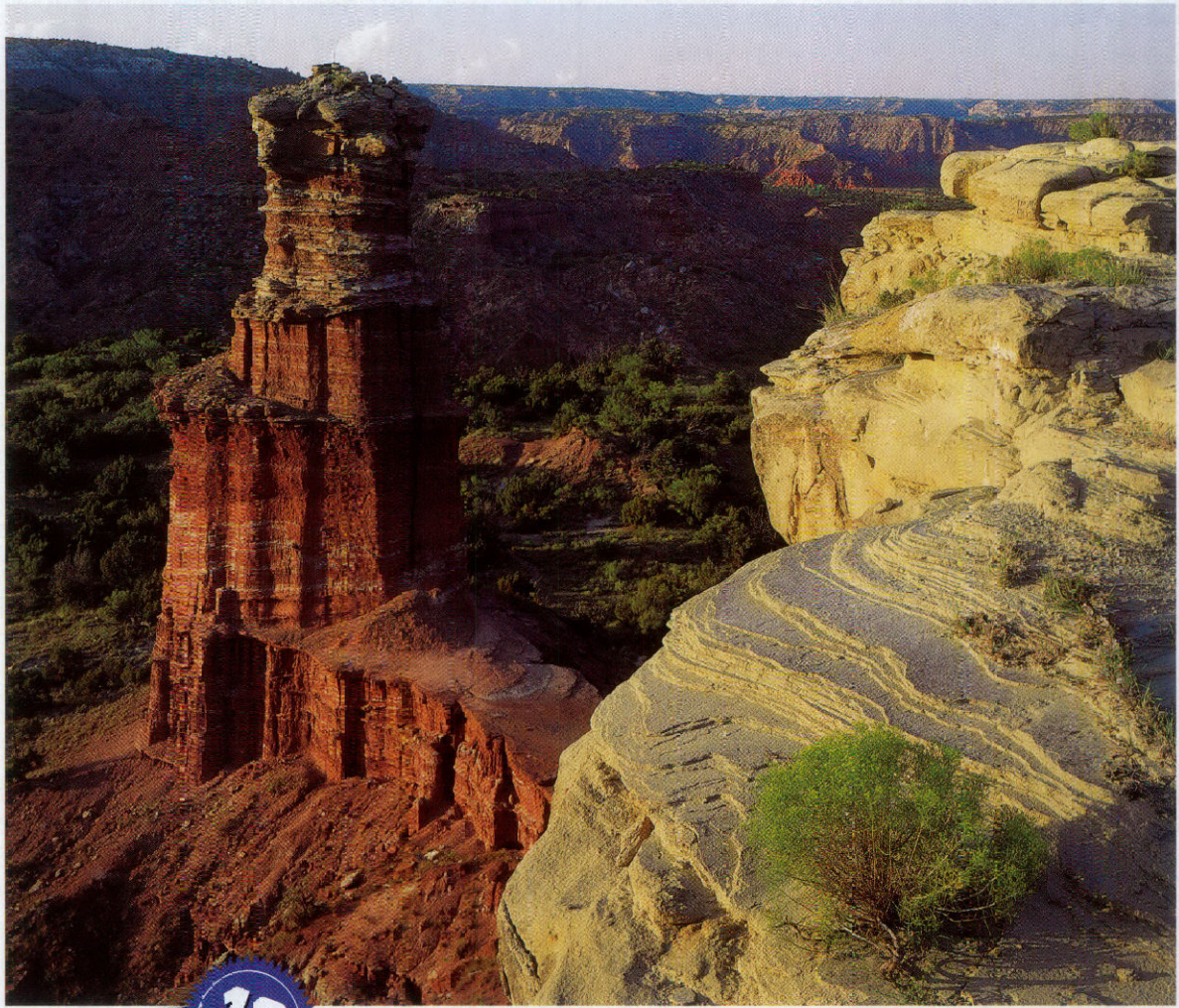
Many factors have been proposed as the culprits in the horny toad's decline, including collection for the pet trade, spread of the red imported fire ant, changes in land use and environmental contaminants. Texas horned lizards have been protected from the pet trade since 1977, but for the most part the decline has remained a mystery.

That lack of information is what promoted TPWD to seek the public's help. Participants in the Texas Horned Lizard Watch will be provided maps and instructions on how to monitor the lizards. Volunteers will receive regular updates from the program, along with other materials such as posters.

For information, call TPWD's Endangered Resources Branch: 1-800-792-1112.



GLEN MILLS



© LA JRE-ICE PARENT



Best Hiking Trails

When we asked you, our readers, to nominate your favorite Texas hiking trails, we expected some of the more traditional spots, such as the South Rim of Big Bend National Park, to dominate. These certainly were mentioned, but what surprised us was the number of trails mentioned all across the state. So here, in no particular order, are the 10 most-loved, as seen through the lenses of some of Texas' top nature photographers.

The Lighthouse, Palo Duro Canyon

HIKING, BOTH EQUESTRIAN AND TRADITIONAL, ARE POPULAR ACTIVITIES AT PALO DURO CANYON STATE PARK IN THE PANHANDLE NEAR CANYON. AND THE MOST FAMILIAR SIGHT FOR HIKERS IS THIS 75-FOOT-HIGH PILLAR OF SANDSTONE KNOWN AS THE LIGHTHOUSE. IT CAN BE REACHED ON TRAILS OF VARIOUS LENGTHS. PARK VISITORS CAN RENT HORSES OR BRING THEIR OWN MOUNTS FOR DAY TRIPS.





© LAURENCE PARENT

Lost Maples State Natural Area

THESE HIKERS ARE ENJOYING ONE OF TEXAS'S MOST SPECTACULAR NATURAL PHENOMENA, WHEN THE BIGTOOTH MAPLE TREES AT LOST MAPLES NEAR VANDERPOOL PUT ON THEIR BEST AUTUMN DISPLAY. A HALF-MILE-LONG TRAIL TAKES VISITORS THROUGH THE HEART OF THE SABINAL RIVER BOTTOM WHERE MOST OF THE BIGTOOTHS ARE LOCATED, BUT SEVERAL MORE MILES OF SECONDARY TRAILS OFFER EXCELLENT VISTAS OF THE FAMOUS TREES FROM HIGHER GROUND. BARBARA STRASSER OF FORT WORTH SAID THE PARK GETS HER VOTE BECAUSE "IT'S UNIQUE IN TEXAS, HAS TRAILS FOR ALL AGES AND ABILITIES AND GREAT PARKING FACILITIES FOR THE NEW, LARGER RVS."



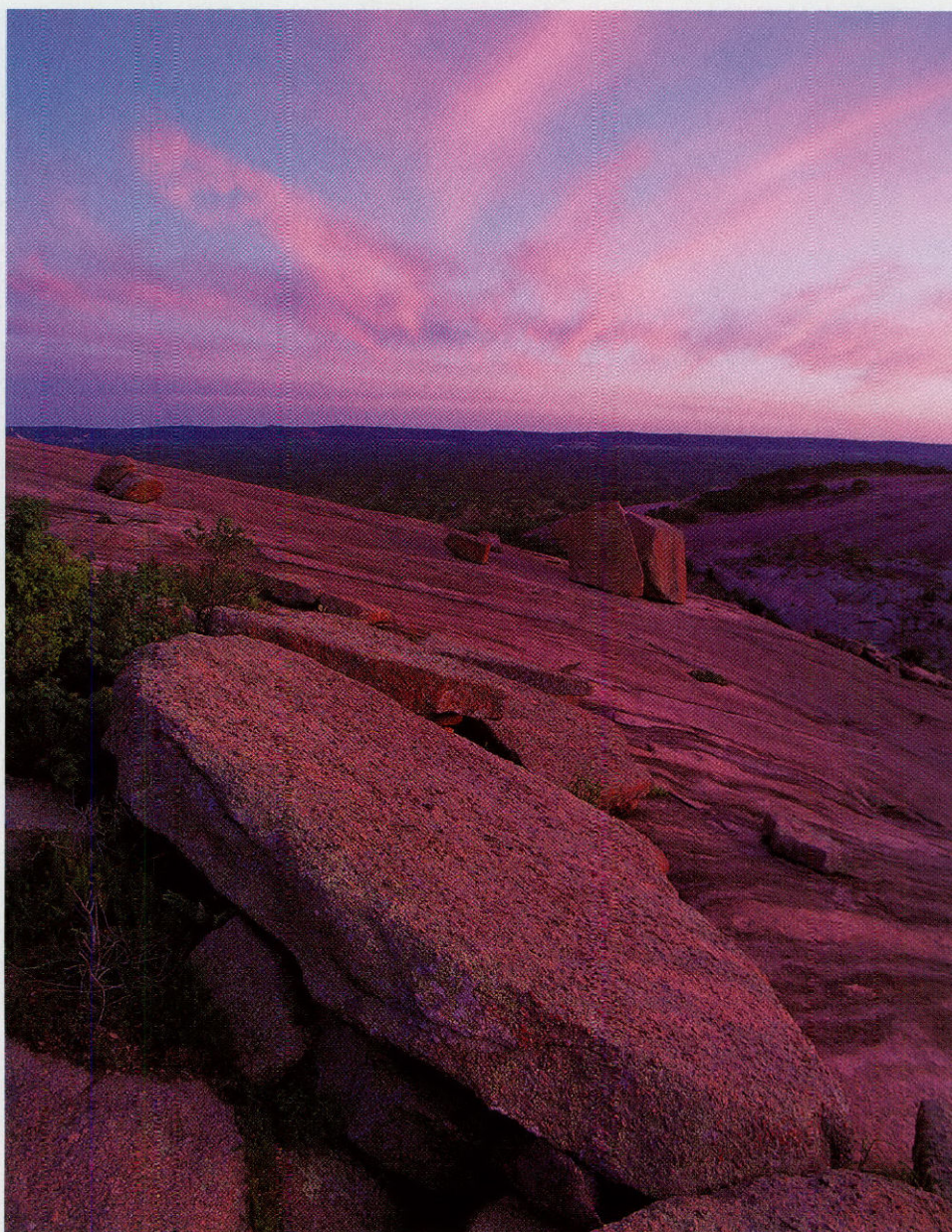


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Gorman Falls, Colorado Bend State Park

COLORADO BEND HAS 12 MILES OF TRAILS WITHIN ITS 5,000-ACRES, BUT THE ONE LEADING TO THIS MOST PHOTOGRAPHED SCENE, GORMAN FALLS, IS OPEN ONLY FOR SPECIAL TOURS BECAUSE OF ITS FRAGILE STREAM AND BOTTOMLAND ENVIRONMENT. THE PARK HAS SEVERAL TRAILS DESIGNATED AS HIKING-ONLY, BUT OTHERS ACCOMMODATE HIKERS AND BICYCLISTS. SOME OF THE GUIDED HIKING TOURS INCLUDE LOW-CRAWLING THROUGH CAVES.





© STEVE GLENN

Enchanted Rock State Natural Area

THE GRANITE DOME KNOWN AS ENCHANTED ROCK HAS BECOME A HILL COUNTRY ICON, RISING 425 FEET ABOVE THE PARK AND OFFERING A MYRIAD OF HIKING AND CLIMBING OPPORTUNITIES FOR ALL AGES AND SKILL LEVELS. LOCATED BETWEEN FREDERICKSBURG AND LLANO, ENCHANTED ROCK HAS SEVEN MILES OF TRAILS, INCLUDING ONE THAT OFFERS PRIMITIVE CAMPING AREAS. ENCHANTED ROCK HAS BECOME SO POPULAR THE NUMBER OF VISITORS MUST BE LIMITED TO PRESERVE THE VERY RESOURCE THAT HAS MADE IT SO POPULAR.





© GRADY ALLEN

Henderson Trail, Brazos Bend State Park

NOT EVERYONE IS PHYSICALLY ABLE TO TACKLE THE USUAL HIKING TRAIL, AND THOSE WHO CANNOT SHOULD CONSIDER HENDERSON TRAIL AT BRAZOS BEND, SOUTH OF HOUSTON, THEIR FAVORITE. AN EXTENSIVE SYSTEM OF WHEELCHAIR-ACCESSIBLE VIEWING SITES TRAVERSES THE WILDLIFE-RICH BOTTOMLANDS, AND TOUCHABLE INTERPRETIVE ANIMAL DISPLAYS GIVE THE BLIND A SPECIAL UNDERSTANDING OF THE NATIVE FLORA AND FAUNA.





© LAURENCE PARENT

McKittrick Canyon, Guadalupe Mountains National Park

McKITTRICK CANYON AND THE SPRING-FED CREEK THAT WINDS THROUGH IT IS ONE OF TEXAS'S MOST ECOLOGICALLY DIVERSE AND INTERESTING. MAPLES, OAKS AND OTHER HARDWOODS THRIVE ALONG THE CREEK. "THE CANYON IS SPECIAL ANY TIME OF YEAR," WROTE JOHNNIE COSBY OF CEDAR HILL, "BUT DURING LATE OCTOBER TO MID-NOVEMBER WHEN THE LEAVES ARE TURNING COLORS McKITTRICK IS THE MOST PLEASANT OVERALL HIKE IN TEXAS."





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Lone Star Trail at Big Creek, Sam Houston National Forest

THIS VAST (140-MILE) SYSTEM OF TRAILS FOR HIKERS AND BICYCLISTS RUNS THE GAMUT OF CLASSIC EAST TEXAS PINEWOODS HABITATS, INCLUDING SIGNIFICANT PORTIONS OF THE LEGENDARY BIG THICKET. ONE OF THESE AREAS IS THE BIG CREEK SCENIC AREA, JUST WEST OF SHEPHERD. ABOVE IS A FOOTBRIDGE OVER DOULEE LAKE. VETERAN HIKER ALLEN T. PAPE OF BAYTOWN SAID MEMORIES FROM BIG CREEK ABOUND, INCLUDING "WALKING UP ON A FLOCK OF WILD TURKEYS BESIDE THE TRAIL, AND THE SIGHT OF MANY BEAVER DAMS." CATHY MURPHY OF HOUSTON SAID SHE IS DRAWN TO THE HINT OF DANGER, EVEN IN A NORMALLY PLACID ENVIRONMENT, SUCH AS BRUSHES WITH COPPERHEADS AND THE PRESENCE OF POISONOUS MUSHROOMS. "ON THE UPPER END OF THE FOUR NOTCH SECTION OF THE TRAIL SOMETIMES IS A FAIRYLAND OF FLY AGARIC MUSHROOMS, POISONOUS AND HALLUCINOGENIC BUT BEAUTIFUL."





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Los Lingas Creek Trestle, Caprock Canyons State Park

WHILE MOST TEXAS TRAILS ARE OF THE MEANDERING VARIETY, THE CONVERTED RAIL TRAIL AT CAPROCK CANYONS IS LONG, ALMOST 65 MILES, AND BASICALLY STRAIGHT. IT PLUNGES OFF THE CAPROCK ESCARPMENT EAST OF SOUTH PLAINS AND CROSSES ROLLING "BADLANDS" TO ESTELLINE. ABOVE IS A TRESTLE OVER LOS LINGAS CREEK. LIMITED PRIMITIVE CAMPING OPPORTUNITIES ARE FOUND IN THE FIRST 22-MILE SEGMENT FROM SOUTH PLAINS TO QUITAQUE, BUT DEVELOPMENT STILL IS UNDERWAY FARTHER EAST.





© LAURENCE PARENT

Angelina National Forest

A SMALL WATERFALL IN THE BOYKIN SPRINGS AREA OF ANGELINA IS TYPICAL OF THE CLASSIC PINEYWOODS TERRAIN ALONG THE NECHES RIVER. THE SAWMILL HIKING TRAIL PASSES STANDS OF SEVERAL VARIETIES OF PINES, BUT ALSO IS GRACED WITH TRACTS OF DOGWOOD AND HARDWOODS. THE TRAIL IS NAMED FOR SEVERAL OLD SAWMILL SITES.





© LAURENCE PARENT

Lost Mine Trail, Chisos Mountains, Big Bend National Park

HERE IS A CLASSIC BIG BEND TRAIL THAT SHOULD BE ATTEMPTED BY HIKERS IN GOOD PHYSICAL SHAPE. ELEPHANT TUSK IS THE KNOBBY-SHAPED PEAK IN THE BACKGROUND OF LAURENCE PARENT'S PHOTO ABOVE. THE 4.8-MILE LOST MINE TRAIL IS PART OF THE CHISOS BASIN COMPLEX OF TRAILS THAT INCLUDES THE EQUALLY POPULAR SOUTH RIM TRAIL.



Ditch Full-O-Fish



© RICHARD STOCKTON

Above: An excavated channel festooned with docks, bulwarks and barge traffic is not most anglers' idea of a prime fishing spot. But the Brownsville Ship Channel's deep waters hold a surprising variety of game fish.

The Brownsville Ship Channel may not be the first place you think of when planning a fishing trip to Port Isabel and South Padre Island. The 16-mile channel is a highway for ocean-going tankers and freighters hauling ammonia, gasoline, fish meal, manganese ore and pig iron to the Port of Brownsville. Ships that carry the flags of Brazil, Greece, Kuwait, Canada and Pakistan, to name a few, regularly depart the waterway loaded with everything from asphalt and bauxite to paraffin wax and pinto beans.

So why are more and more Texas anglers fishing along an industrial waterway with a view of giant cranes, tank farms and steel scaffolding? The simple answer is that the Brownsville Ship Channel offers some of the most exciting angling on the Texas Coast.

"On a fish-per-surface-acre basis, it is a remarkable place," said South Padre fly-fishing guide Eric Glass, whose clients

What it's lacking in esthetics, the Brownsville Ship Channel makes up for in saltwater fishing action for a remarkable variety of game fish.

by Phil H. Shook

regularly catch snook, trout and redfish along the ship channel.

For a variety of game fish, the ship channel acts as both a river link to the Gulf of Mexico and an inshore reef providing them with a deep-water sanctuary and a rich food supply. In addition to being one of the best snook fisheries on the coast, the channel also is home to red drum, spotted seatrout, ladyfish, croakers, jack crevalle, flounder and black drum as well as the occasional juvenile tarpon.

Since 1992 there also has been a noticeable increase in the numbers of gray snapper, also known as mangrove snapper, caught along the ship channel, said Tom Warren, Texas Parks and Wildlife ecosystem leader for the Lower Laguna Madre. Mangrove snapper thrive in the rocky structure found in many places along the edge of the ship channel, he said.

The snapper population boom, along with the presence of the highly prized



© GRADY ALLEN

but elusive snook, has contributed to the increased interest in the ship channel by a diverse group of anglers. Flyfishers have joined live-bait anglers, plug throwers and bank fishermen in exploring the waterway's many fish-holding features.

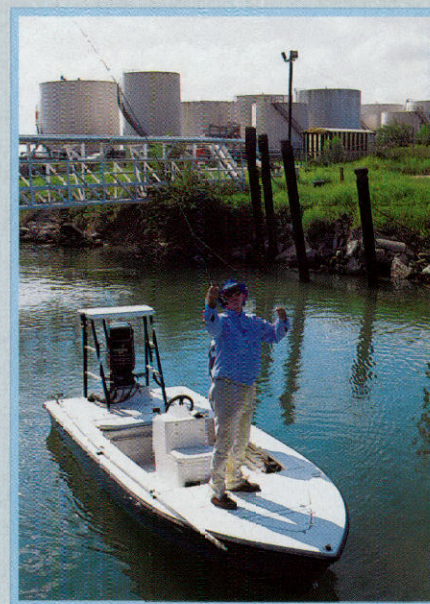
Dr. Scot Johnson, a McAllen physician and an avid ship channel angler said the mangrove snapper appear to be getting bigger every year, requiring him to beef up his tackle.

Johnson fishes for mangrove snapper with live bait and he has caught them up to 32 inches long, but he thinks there are much bigger ones hanging around the channel. "They have gotten to the point where they are breaking 50-pound line," he said. While Johnson assumes mangrove snapper broke his lines and straightened some of his 3/0 hooks last year, he said it might also be big grouper doing the damage. Scamp, a member of the grouper family, also have been caught in the ship channel.

Johnson said anglers should be prepared for almost anything when they fish in the waterway. "In the Brownsville Ship Channel, you don't know what you're going to catch," he said. "All of a sudden here comes a school of reds and they're all oversized. Then there will be schools of 25-inch redfish. Then the skipjacks (ladyfish) are in and your bait won't have a chance to touch the bottom."

Another unusual fish that often turns up in the ship channel is the lookdown, a thin, silver-sided fish with a sloping forehead. Lookdowns, members of the jackfish family, are hard fighters and excellent table fare. They will hit a live shrimp or finger mullet and have been caught up to five pounds in the ship channel, said veteran Port Isabel guide Gilbert Vela.

"In the channel, when we are throwing jumbo live shrimp for snook, you can throw nine times and you'll catch



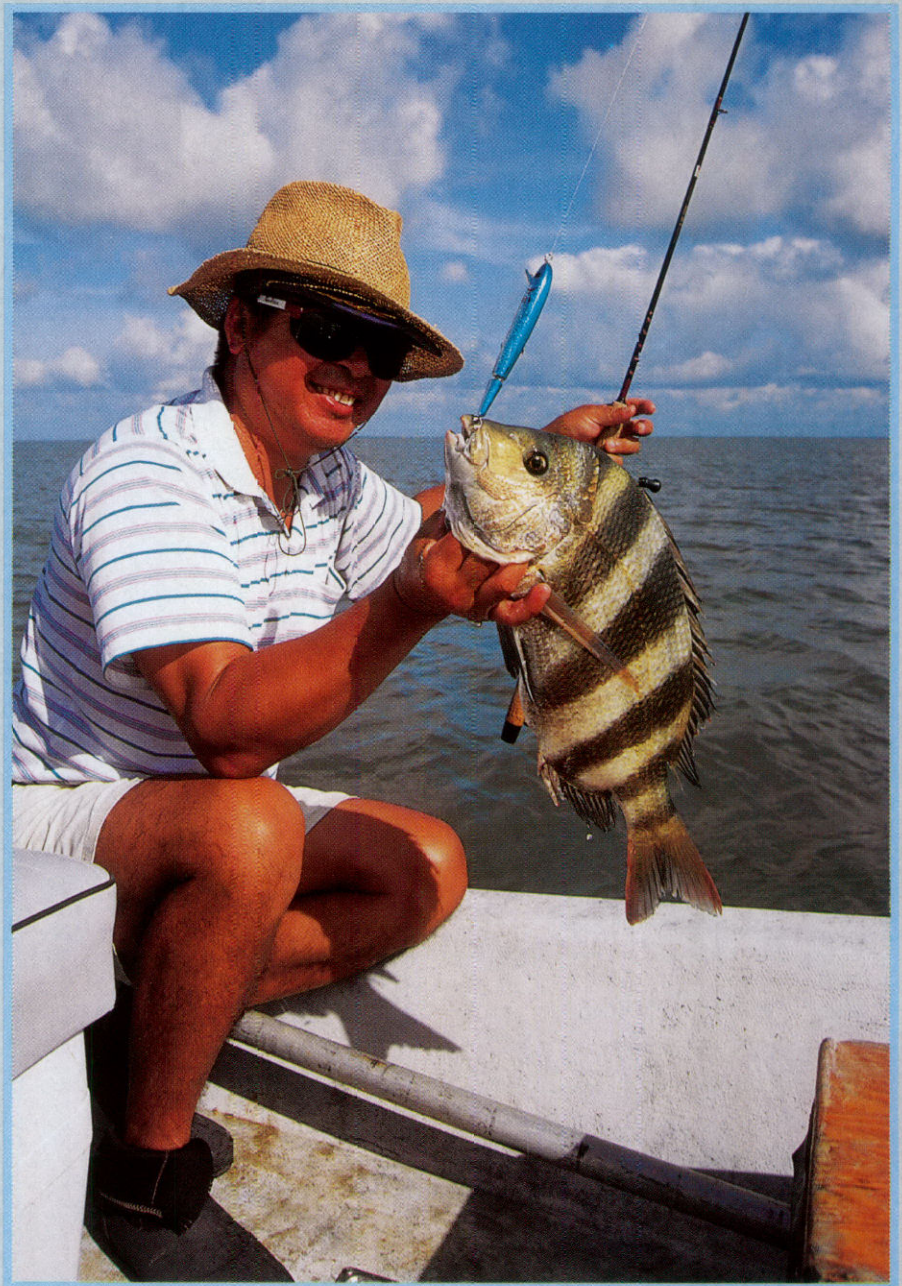
© PHIL SHOOK

Top: Hard-fighting jack crevalle are one of several Gulf fish species that make feeding forays into the channel. **Above:** Light tackle enthusiasts can catch spotted seatrout, red drum (redfish) and the inshore jumping champion, the ladyfish or skipjack.



EARL NOTTINGHAM

Above: Brown pelicans find the channel's food supply to their liking. **Right:** Striped bass are a structure-loving fish that find the Brownsville Channel's variety of docks, retaining walls and other features a good place to live.



© GRADY ALLEN

nine different species," Vela said.

The channel has stretches of mangrove shorelines, coves and flats, oyster-encrusted pilings and pipes that provide ideal habitat for game fish. Added to this environment is an abundant supply of forage fish including bay anchovies, silversides, Atlantic bumper and mullet.

In addition to its proximity to the fertile shrimp and finfish nurseries of the Lower Laguna Madre and a direct link to the bounty of gamefish that enter from the Gulf at nearby Brazos Santiago Pass, the Brownsville Ship Channel supplies its own white shrimp from San Martin Lake. The tidal lake empties into the chan-

nel along State Highway 48, the road that connects Port Isabel and Brownsville.

The ship channel also is home to a cast of finned characters that could play the bar scene in the movie Star Wars. TPWD's Warren said trawling samples reveal abundant forage fish in the channel as well as moray and shrimp eels, sting rays, butterfly rays, scorpion fish and bat fish.

The Brownsville Ship Channel was completed in 1936, opening the way for the development of a modern and efficient commercial port. Prior to that, river steamers and the narrow-gauge Rio Grande Railroad would bring Mexican crude oil to the U.S. and transport val-

ley agricultural products to distant markets. The channel is 12.4 nautical miles long from its junction basin at the Laguna Madre Channel to the Brownsville Turning Basin.

Vela said several generations of anglers have had to learn how to fish the ship channel over the years by putting time in on the waterway. He said the channel has undergone significant changes during its 60-year history and the angling techniques have had to change with it.

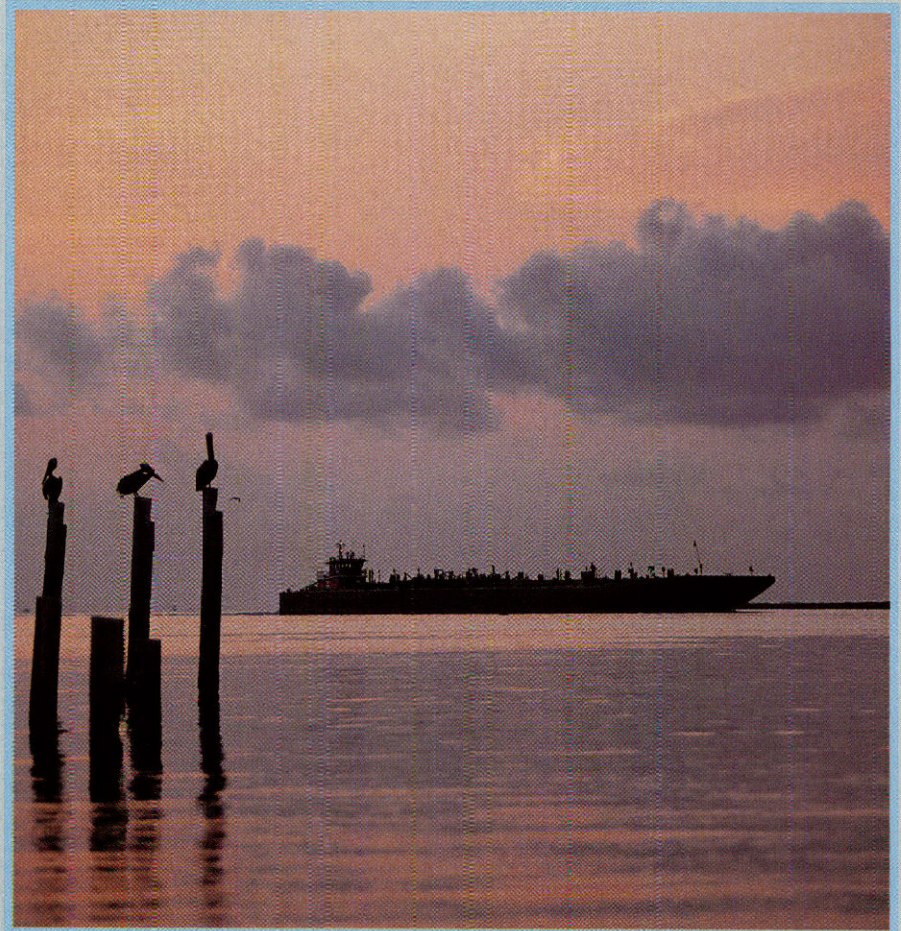
In the early years, the channel had a more distinct dropoff and many people would troll for snook and other game fish from small aluminum boats along a deep edge that extended from the jetties past South Bay. Vela said local anglers would use heavy jigs and swimming plugs to catch snook, trout and redfish. "They would troll a straight line along the dropoff and sooner or later they would bump into a school of fish."

That method is not used anymore because the contours of the channel changed over the years, either by natural forces or by dredging, and the fish no longer are concentrated in a single area.

In the 1960s and '70s, interest in fishing the ship channel waned, Vela said. But the fallout from a killer freeze in 1983 helped revive interest in the fishery and brought about game fish status for one of the ship channel's most prized residents. The winter storm left a four- to six-inch cap of ice on areas of South Bay and killed an estimated 128,000 trout on the Lower Laguna Madre. A large number of snook, desperately seeking warmer temperatures in deeper water, traveled the length of the channel where they congregated in a 35-foot-deep hole.

Following the freeze, after three days of warming weather, the snook came to the surface and milled around. At that time, snook were not a protected game fish and when word got out, people harvested hundreds of pounds of snook with frog and flounder gigs.

Since that winter of 1983-84, snook have been protected from such whole-



© GRADY ALLEN

sale slaughter by being granted game fish status in Texas waters. Restrictive length and bag limits also were established and today there is a healthy Texas snook fishery concentrated around the ship channel, South Bay and the nearby jetties and bridge structure.

The snook incident also was eye opening for many anglers. With the exception of a few veteran guides and anglers like Vela, who occasionally caught snook over the years, nobody knew they were present in any numbers until the freeze. Most thought they had disappeared.

"After the big freeze, we found out the fish were (in the ship channel)...and we started trying to figure out how to catch them there," Vela said.

That's when anglers began to discover the variety of game fish in the channel. "We would get out there to fish and it would be infested with skipjacks," Vela said. "Then we would get in there and throw at some gigantic blowups that we thought were snook and it turned out

Above: Anglers had paid little attention to the Brownsville Channel until the freeze of 1983-84, when the cold killed or forced to the surface thousands of trout, redfish and snook. No one realized snook were in the area in such numbers before the freeze.



© PHIL SHOOK

Above: *Gray, or mangrove, snappers have been on the increase in the channel since 1952, biologists say. The fish, which attain fairly large sizes, can be found along the rocky structure found in many places along the canal.*

to be jack crevalle.”

At first it was difficult figuring out how to narrow down the right fishing methods for the channel, Vela said. The channel runs for about 16 miles from the end of the jetties at Brazos Santiago and the terminus at the Brownsville Turning Basin. “If you tried to fish in the middle where the water is 35 feet deep, you wouldn’t catch anything,” Vela said.

At first people would get on the bank and throw to the middle of the channel. But they soon learned that the way to catch fish was to get in the middle and throw to the bank.

With the absence of a distinct drop-off, the fish adapted to the many features and structures along the channel, from coves and small flats to stretches of mangrove shoreline. Where these coves and flat areas came off the dropoffs, you might find flounder, Vela said. And every time a ship or a tugboat would rest its bow on a bank line, it would cut a groove

and make a natural habitat for redfish, trout and snook.

Just like on offshore oil platforms, pilings or pieces of metal that extend from the bank of the channel are encrusted with oysters and become habitat for one species or another.

Nowadays there are particular spots along the channel where people fish for trout, drum and croakers. Others head to the end of the basin looking for snook where the channel narrows and gets a little deeper. There, a manmade floodway provides a source of fresh water that changes the salinity and attracts hordes of baitfish, which in turn draw game fish.

“When we fish for trout and redfish, we fish points and dropoffs along the channel,” Vela said. “But when we target a certain species, we look for structure. We are always throwing along the side of something or on top of something.”

First timers drawn to the ship channel just for the fishing may be surprised

at the clear, green water and wild beauty along its banks. Arrays of herons, egrets and pelicans frequent tidal lakes and flats along the shoreline. Black-shouldered kites and Mexican crows often are spotted overhead and in recent years the endangered Aplomado falcon has nested along the waterway.

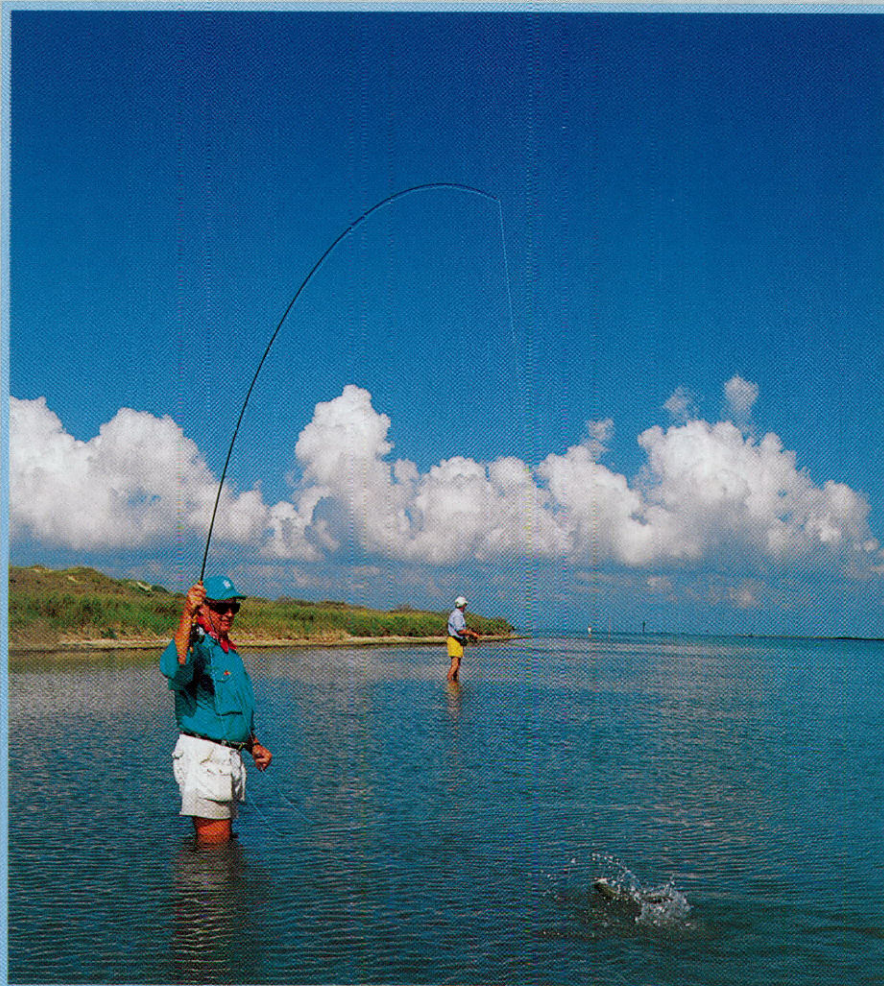
“If you pick your day right, you will enjoy it for more than the fishing,” said Vela. “It isn’t rough. You’ll enjoy the ride.” ★

PHIL SHOOK is a freelance writer living in Houston who writes frequently on angling in Texas.

If You Go

Access by vehicle for bank fishing in designated areas along the Brownsville Ship Channel is allowed seven days a week during daylight hours. There is no charge for entering the property but visitors must obtain a permit from the Harbor Master’s Office before entering the designated fishing areas.

Because of the length of the channel and the variety of features available along the waterway, the most preferred method of fishing is from a boat. Small craft such as outboard-powered jonboats or flat-bottomed skiffs are satisfactory for most conditions. The ship channel can be accessed by boat from public launch ramps and marinas nearby at Port Isabel and South Padre Island. There also is a public ramp providing access to the ship channel from San Martin Lake. The state boat ramp operated by the Texas Parks and Wildlife Department is six miles from Port Isabel on State Highway 48. Boaters are prohibited from tying to or alongside docks, wharves, piers or vessels. Port officials advise anglers in boats to stay clear of loading or construction operations underway at grain and oil service company docks along the waterway.



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Above: Anglers may find the better fishing lacking in estuaries, such as in an oil production platform docking area, but in spots you still can find shoreline areas that more closely resemble the nearby Lower Laguna Madre.

SOS FOR THE RCW

A SPIRIT OF COMPROMISE
RUNS THROUGH THIS LATEST
PLAN TO HEAD OFF THE
EXTINCTION OF ONE OF
TEXAS'S RAREST BIRDS—THE
RED-COCKADED WOODPECKER.

BY RICKY W. MAXEY

Before widespread settlement of the American Southeast, pine trees glistened with resin throughout the region's open, parklike forests. These unusual-looking tree trunks took on this shiny appearance because of a small, bluebird-sized bird known as the red-cockaded woodpecker. Unlike most woodpeckers, which drill their cavities in dead trees, the red-cockaded requires living pine trees for its gourd-shaped chamber. And these trees must be old—typically 75 years or more—to have enough heartwood for a cavity. Frequently the trees are infected with pine heartrot, a fungal disease that causes decay of pine heartwood and aids the bird's excavation. The woodpeckers penetrate areas known as resin wells both above and below the cavity entrance. These wells release a flowing resin that gives the tree a "candlelike" appearance and provides a barrier to climbing rat snakes.

Such a narrow habitat niche worked against the birds when settlement and logging began eliminating these large, old, living pine trees, and the suppression of naturally occurring forest fires prevented regeneration of the habitat. Red-cockaded woodpecker populations began to decline, and in 1969 the bird was listed as endangered by the Bureau of Sport Fisheries and Wildlife in Washington, D.C., now the U.S. Fish and Wildlife Service.

Today, red-cockaded woodpecker populations are located primarily on national forest lands across the Southeast. Most of the red-cockaded populations in Texas, which is the westernmost limit of the birds' range, are located in the Angelina, Davy Crockett, Sabine and Sam Houston National Forests. But public lands make up only six percent of the land in the East Texas Pineywoods, so conservation efforts for the red-cockaded woodpecker or any species must involve private lands.

A unique plan now offers hope for the birds. Approved by the U.S. Fish and Wildlife Service in December 1996, the plan is known by the daunting title of

“Habitat Conservation Plan for Red-cockaded Woodpeckers in East Texas.” A big plan for a little bird. The Texas Parks and Wildlife Department and the Texas Forest Service will put the plan into action because of these agencies’ front-line position in working with private landowners.

The plan is intended to conserve the red-cockaded woodpecker, while offering private landowners management options. There are two options for a private landowner: “safe harbor” and a standard “incidental take” agreement.

Standard habitat conservation plans try to offset or mitigate damage to endangered species. The “safe harbor” approach is unique because it offers landowners an incentive to provide habitat for threatened or endangered species. Any landowner who enters into such a cooperative agreement with either TPWD or TFS will be relieved from any additional responsibility under the Endangered Species Act beyond that which exists at the time the landowner signs the agreement. In other words, a participating landowner will be required to protect the habitat of any active red-cockaded woodpecker cluster on his property at the time the agreement is signed, but he is under no obligation to protect additional red-cockaded woodpeckers that may be attracted by the habitat improvements.

Participating landowners will enter into a cooperative agreement with TPWD or TFS, and as long as landowners carry out and maintain the agreed-upon habitat improvements, they may lawfully use their property even if such use results in the loss of habitat and associated red-cockaded woodpeckers. Landowners must only notify TPWD or TFS and give them an opportunity to relocate any woodpeckers that might be affected.

When the “safe harbor” concept is not feasible, a second option allows landowners with small and genetically isolated red-cockaded woodpecker populations to offset anticipated habitat losses. This so-called “incidental taking” of red-

At just seven to eight inches tall, the red-cockaded woodpecker is a small woodpecker, about the size of a bluebird. The species is named for a small patch of red feathers on the male’s head. Females, right, do not have such a patch. The red-cockaded woodpecker, or RCW, requires large, old, living pine trees for its nest cavity.

GLEN MILLS





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Artificial cavity inserts, left two photos, are one type of habitat enhancement for red-cockaded woodpeckers. Efforts to improve existing cavities include reinforcing the cavity entrance to prevent larger species from entering and enlarging the hole, third photo. The photo on the right shows the resin that drips from holes the birds drill in the living tree. This sticky resin protects the birds and their nests from climbing rat snakes.

cockaded woodpeckers would be allowed after mitigating the anticipated loss. Mitigation may include the following:

- Providing artificial cavity inserts and habitat enhancements for the establishment of artificial clusters on other land designated for red-cockaded woodpecker management/conservation.
- Allowing TPWD/TFS to relocate juvenile red-cockaded woodpeckers onto another permanently protected site.
- Providing permanent protection of other red-cockaded woodpecker, or potential red-cockaded woodpecker habitat.
- Providing hardship cases with credits established from increased red-cockaded woodpecker populations as a result of this plan.

Putting this plan to work should immediately encourage landowners to produce more habitat without fear of losing control of their property. In addition to helping the red-cockaded woodpecker, landowners who allow their timber to mature can harvest it as more valuable sawlogs rather than pulpwood, and receive a higher return on their investment. Landowners who once feared losing control of their property if woodpeckers moved into their mature pine forests can now allow those forests to mature, to both their benefit and that of the red-cockaded woodpecker. ★

RICKY W. MAXEY is the TPWD endangered resources regional biologist for East Texas.

FOR MORE INFORMATION

Landowners interested in receiving further information or participating in the Habitat Conservation Plan for Red-cockaded Woodpeckers in East Texas may contact Ricky Maxey of the Texas Parks and Wildlife Department at P.O. Box 4655, SFA Station, Nacogdoches, Texas 75962, 409-560-5863; or Tom Boggus of the Texas Forest Service, 405 Tarrow, College Station, Texas 77843, 409-845-2641.

A SPECIALIZED WOODPECKER

The red-cockaded woodpecker is named for a small patch of red feathers on the male's head behind the eye but absent on the female. The only other red feathers appearing on this species is a caplike patch on top of the juvenile male's head before it molts.

This is a cavity-nesting bird of mature pine forests of the southeastern United States. It is on the western edge of its range in Texas. The red-cockaded is a small woodpecker, seven to eight inches in height. It has a black cap and a white cheek patch, and the feathers on its back alternate black and white in color for a "ladderlike" appearance.

Of eight woodpecker species that occur in the Pineywoods of East Texas, the red-cockaded is the only one that excavates

its cavities in living pine trees. It is a very specialized bird that favors mature trees not only for their heartwood, but also because these mature pine forests produce insects, spiders and other invertebrates for the birds to eat.

A grouping of red-cockaded woodpecker cavity trees is known as a cluster; woodpeckers inhabiting a cluster are called a group. A group consists of a mated pair, one or more helper birds and, at various times, the young of the year before they leave the group in search of clusters and mates of their own. Only the mated pair actually nests and reproduces. The others in the group serve as helpers to the mated pair, and assist with incubation of eggs, maintenance of cavities, defense of the cluster, and bringing food to the nestlings.

In a natural mature pine forest ecosystem, red-cockaded woodpeckers were the primary producers of cavities for all other cavity-nesting animals. Over time, or through competition, other birds and animals will use cavities created by the red-cockaded, including other woodpecker species, screech owls and flying squirrels.

There are several reasons for the decline of red-cockaded woodpecker populations across its range, including degradation and loss of habitat and the suppression of natural fires. The open, mature pine savanna the birds prefer were forests that periodically burned, and these fires supported vast, open, pine savanna forests

with broad expanses of native grasses. Modern fire suppression for the past 70 years has allowed hardwoods and shrubs to move in. If this encroachment continues until the midstory and understory become dense or "closed" and the red-cockaded woodpecker's cavities are not opening into the open pine forest, the birds will abandon their cluster and search for more suitable areas. The absence of fire in these forests is one of the major reasons for the decline in suitable red-cockaded woodpecker habitat.

Red-cockaded woodpeckers prefer mature pine trees: 70 to 80 years or older for loblolly and shortleaf pine and 100 to 120 years or older for longleaf pine. Forest managers have chosen to grow more easily established, faster-growing species such as loblolly and slash pine in dense plantations. The reason is economic, as those trees will produce high yields in a short time. But these forests are not open and "parklike," nor do they have mature trees with suitable heartwood and heartrot for the woodpeck-

ers' cavity nests.

As our population has grown, we have altered vast acres of naturally occurring forests or converted to them non-forest uses such as row crop and forage production, housing and industrial development, utility, road and reservoir construction. But with new management initiatives, such as the habitat conservation plan, there is renewed hope for the long-term survival of rare species such as the red-cockaded woodpecker.



© R. N. CONNER

The suppression of naturally occurring forest fires is one reason for the decline of the red-cockaded woodpecker. Fires prevent the encroachment of hardwoods and shrubs, and keep the habitat open and parklike, below left, which the woodpeckers require. When encroachment causes the habitat to become dense and closed, and the woodpeckers' cavities are not opening into the open pine forest, the birds will look for more suitable areas. A new habitat conservation plan will encourage landowners to produce more RCW habitat without fear of losing control of their property.



TPWD PHOTO



Four- Wheelin' BIG BEND

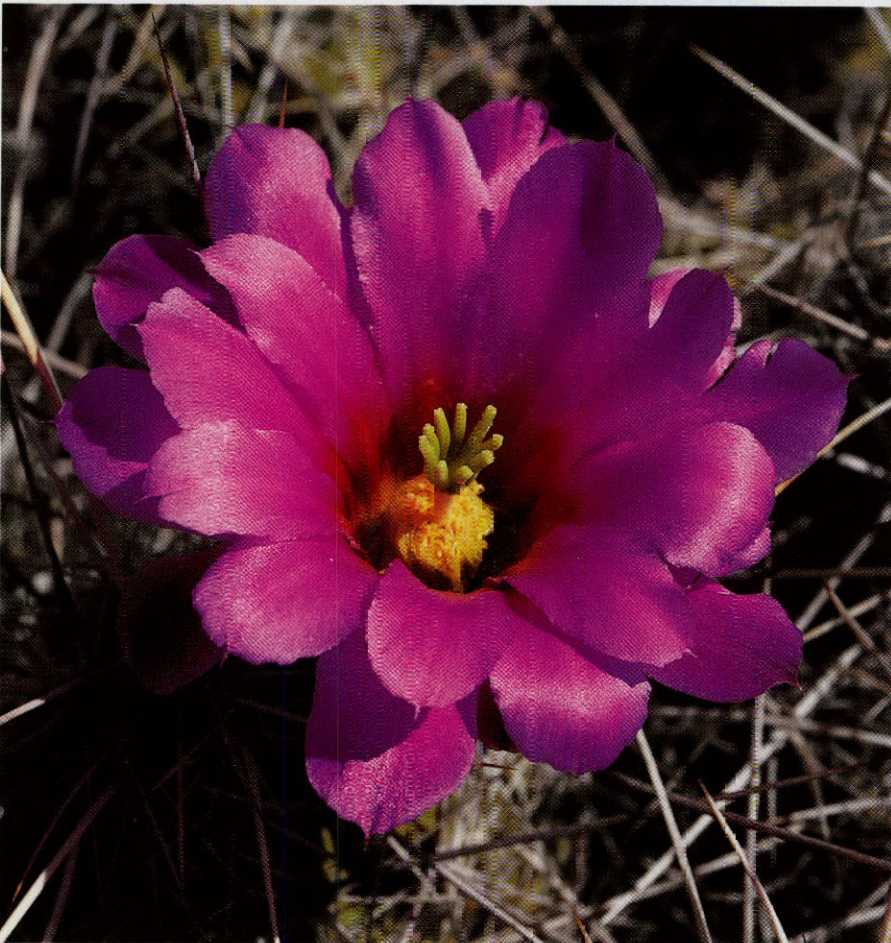
*With a four-wheel-
drive vehicle and a
desire for adventure
you can see parts of
Big Bend National
Park unknown to the
rank-and-file camper
and hiker.*

BY G. ELAINE ACKER

PHOTO BY RUSTY YATES, MAGAZINE COVER BY BILL BEAVES, DIGITAL RETOUCH BY REAGAN WILLIAMSON



© DARYL STYBLO



© DARYL STYBLO

Top: The trail to First Tinja begins about five miles from the southern end of Old Cre Road. The one-mile round trip through the canyon's striated limestone walls leads to the Tinja, which holds water year around. **Above:** In the spring, a variety of cacti, such as this strawberry cactus, add color to the desert landscape.

Last summer, my sisters and I realized we never had been on vacation together. By the time I was old enough to travel without being a burden, my eldest sister, Sherry, was married and my middle sister, Becky, was preparing for college. Aching for a return visit to Big Bend, Becky and I recruited Sherry for the ultimate sisterly bonding experience: the wilderness back roads of Big Bend.

Well-known as a hiker's paradise, Big Bend also offers access to a vast backcountry via the unimproved dirt roads once used by the region's early ranchers and settlers. Along the roads wait historical sites and remote hiking trails, accessible only to those hearty souls with determination and four-wheel-drive vehicles.

We planned the trip for months, making detailed shopping lists for provisions and devoting a large portion of packing space to safety equipment. Then, armed with a case of disposable cameras, we set out to create another memorable Big Bend experience.

The Big Bend Natural History Association's publication, *The Road Guide to Backcountry Dirt Roads of Big*

Bend National Park, describes four routes across rugged sections of the park. Old Ore Road runs from north to south, parallel to the Dead Horse Mountains. Glenn Spring Road follows a path between the eastern edge of the Chisos Mountains and the western slopes of Chilicotol Mountain and Talley Mountain. River Road traces the Rio Grande from east to west, curving around Mariscal Mountain, and Paint Gap Road leads into the Paint Gap Hills north of the Basin.

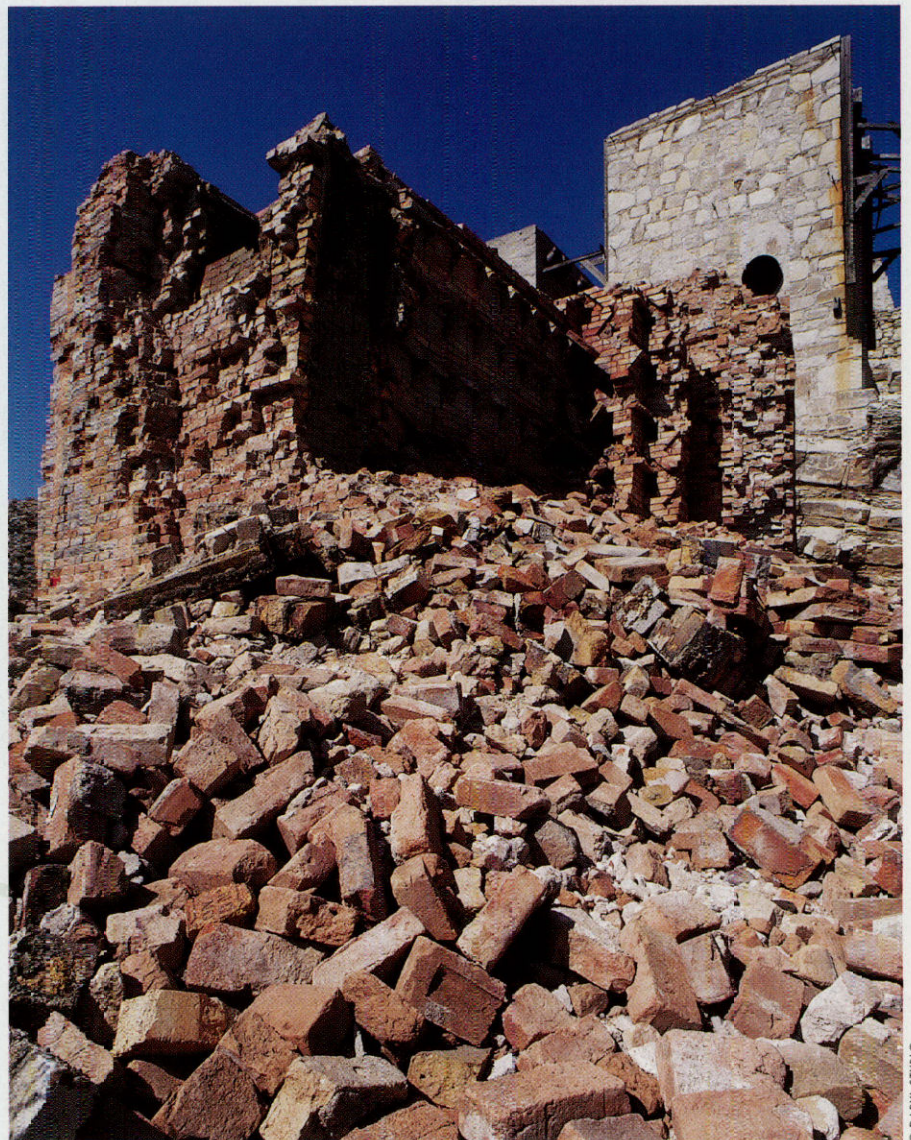
We began our journey along Old Ore Road, camping three miles away from the nearest group of campers, and feeling the shock of three people who have driven away from a world of concrete, glass and steel, and into pioneer history. Sherry wrote: "Our campsite is called McKinney Springs. I've never seen so many stars. There are no sounds other than our own voices."

Old Ore Road traverses more than 26 miles of typical Chihuahuan Desert. Creosotebush, lechuguilla and agave line the roadway, and Tornillo Creek lies to the west. William Quail McKinney ranched this area from the early 1880s until 1910, and the remains of the McKinney Ranch—remnants of a rock home, the ruins of a corral and a windmill over a hand-dug well—still stand.

Campsites and hiking trails farther along the road bear names such as Telephone Canyon, Willow Tank and Ernst Basin, all linked to early Texas lore. The name "Ernst" belongs to Max A. Ernst, "The Law of La Noria," who served as justice of the peace, notary, county commissioner, school board trustee and proprietor of The Big Tinaja Store in the village of La Noria. Ernst was shot in 1908 following the investigation of a fraudulent mail order case. The big tinaja, Spanish for "earthen jar," for which Ernst named his store, is located in the center of Ernst Canyon about a one-mile round-trip hike from the road. Carved into the limestone as though by a master potter, the tinaja holds water year around and was an



© KATHY ADAMS CLARK



© DARYL STIBLO

Top: Four-wheel-drive vehicles allow visitors to experience remote, pristine areas of the park. **Above:** Visitors to Mesquite Lake may explore the roads and trails but are cautioned to avoid "cross-country" hiking due to open mine shafts in the area. Visitors should avoid handling bricks and other construction materials, which may contain mercury.



© DARYL STYBLO

important source of water for the Army of La Noria, which defended the border until 1921.

At times, Old Ore Road was steep, rocky and left us feeling tentative about our route. I looked at a snapshot I took of Becky's truck making its way down a steep incline. Before we started down the hill, the truck was tilted sharply to the right, and I felt I was looking straight down at the ground. At that point I lost my nerve and, mumbling something about needing a photographic moment, bailed out and walked down the hill. I turned around to take the picture, and noticed Sherry waving from the other side of the



© DARYL STYBLO

Top: A backcountry tour crosses large expanses of Chihuahuan Desert with its trademark plant life, including lechuguilla. **Above:** Adobe ruins are common along Old Ore Road and other backcountry roads. **Right:** The fuzzy tarantula is common throughout Big Bend. The spider may look frightening, but it is completely harmless.



© DARYL STYBLO

road. She also had decided two feet were better than four wheels.

We applauded Becky's four-wheel expertise when she reached the end of the rough section of road, and were eager to see pictures of the heroic moment. But the pictures did not recreate the scene. In the photograph, the truck seems only slightly askew and the road seems no more intimidating than some East Texas hills. Maybe you had to be there.

Farther along the road is the desert



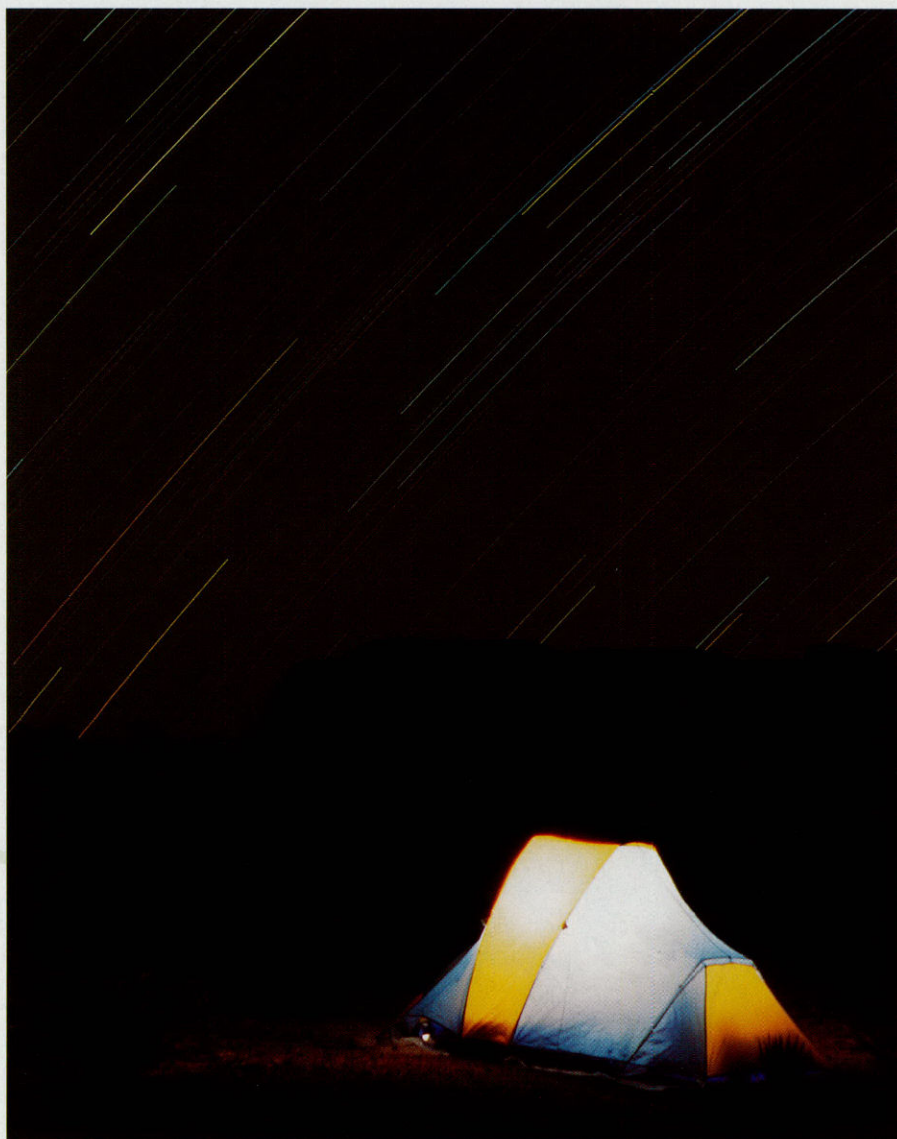
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grave of José de León (June 24, 1906–July 19, 1932), who died of a gunshot wound following an argument with another settler. A bleached, white cross and smooth stones mark the grave, which has become something of a shrine. Visitors regularly place coins, flowers or other objects (someone left a spark plug) at the gravesite. I thought perhaps he would appreciate a single, shiny, .22 caliber cartridge.

We said good-bye to Señor de León and shortly thereafter reached the end of Old Ore Road. Our average speed, including stops at historical sites, a picnic lunch and brief hikes, was just over five miles per hour; the trip that I'd optimistically hoped would take a half-day instead consumed an entire Sunday. When we reached the pavement, we gladly turned toward the Rio Grande Village in search of a warm shower.

A quick reality check told us that at our pace we would not know adventure along every Big Bend back road in a single trip. We then chose to explore the short-but-rough Paint Gap Road to the north of the park. A 2½-mile portion of the road is accessible to passenger cars, but the final mile or so is a rocky, narrow passage through the gap.

At the end of the road lies the Mathews Ranch. Turn-of-the-century maps show an extensive road network leading to and from the ranch; however, all roads now



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Top: The Mariscal Mine was a mercury or "quicksilver" mine that once included two dozen structures along the valley flats and the adjacent hillside. **Above:** Nighttime stars capture the magic of Big Bend.



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Top Left: Common throughout the region, the candelilla or wax plant has been used in manufacturing waxes, cushions, chewing gum, records and candles. **Top Right:** The Rio Grande and the Chisos Mountains combine for one of the park's most impressive vistas. **Above:** Scattered throughout the park are relics of a bygone era.

are closed with the exception of the Paint Gap Road. Remains of the stone ranch house and corral stand along the bluff, accented by green ferns lining the canyon walls above Dripping Spring.

"Once you've been on the Paint Gap Road or Old Ore Road, you appreciate an old oil top road," said Eecky. "That's a super highway. Don't be fooled by the first few miles of gravel and think the road will be an easy drive. It does get worse."

While we felt a certain sense of accomplishment, having traversed two sections of Big Bend backroads, two challenges remain for a future adventure.

Glenn Spring Road runs 15.6 miles from north to south, and from shrub desert to mountain vegetation. Five remote campsites include views of the South Rim, Elephant Tusk and Backbone Ridge before reaching Glenn Spring, a desert oasis. The park staff asks that visitors not pollute the spring or disturb it in any way. What once was an important water source for the Glenn Spring settlement now attracts a variety of wildlife that depend on the spring for survival.

To the south, the road intersects the River Road, a 51-mile road across the southern reaches of Big Bend. While the river itself is visible only from brief stretches of road, side roads to Talley and Solis lead directly to the water's edge. Rich with history, the River Road curves

past more than 20 sites replete with adobe ruins, rock buildings, early Mexican missions, fishing camps and graveyards. West of La Clocha and just across the Rio Grande is the village of San Vicente, Mexico, a small farming village of about 200 people.

The side road to Solis, just under two miles long, runs through the remains of the Solis farm to grassy campsites along the river. One of Big Bend's most primitive trails, Cross Canyon Trail (a 14-mile round trip for day hikers or backpackers), begins at Solis, climbs above the desert, crosses Mariscal Mountain, and descends to the river within the canyon. The trail is poorly defined and should be attempted by experienced hikers only.

Many visitors accept the road's challenge in order to visit the Mariscal Mine, a quicksilver (mercury) mine, which operated until 1923. The mine reopened only once, in 1942 and 1943, producing 97 flasks of quicksilver. The Fresno campsite is the only designated campsite in the vicinity of the mine; no camping is permitted in the historical area. Visitors are invited to walk the roads and trails through the mine ruins, but are warned not to explore off the trails due to open mine shafts throughout the area. In addition, the bricks and other construction materials potentially contain high concentrations of mercury and visitors should avoid handling these materials.

Past Mariscal Mine is the road to Talley, a popular river campsite and launch for river trips through the canyon. The old Talley ranch house is situated along the river, and the Mariscal Rim Trail begins nearby. The strenuous 6.6-mile round trip hike along old burro trails ends at an overlook along the Mariscal Canyon rim.

Only experienced drivers with confidence in their vehicles and adequate safety equipment are encouraged to explore the western section of the road beyond the mine and Talley. Portions of the road are closed during wet weather, and even



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Top: Springtime along the River Road means Texas-sized Trans-Pecos bluebonnets lining the roadsides. The state record is four feet, eight inches. **Above:** Backcountry roads lead visitors into a primitive wilderness environment. Campers should obtain free backcountry permits from park rangers and file a travel plan before beginning the journey.



© RUSTY YATES



© DARYL STYBLO

Top: La Clocha campground is just over 2½ miles from the eastern end of the River Road. Clocha is Spanish for "crusher," referring to the rock crusher once located at the site. **Above:** The road to Pine Canyon turns west toward the Chisos Mountains. The canyon has been declared a Research Natural Area by the Federal Committee on Ecological Reserves. It is to be left undisturbed to serve as a gauge by which to measure changes in man's natural environment. For this reason, no camping is allowed in the heart of Pine Canyon.

in dry conditions the road is extremely rough.

Those who do continue along the River Road find hawks soaring over the open flats; the road leads through the fertile floodplain with its stands of tamarisk and mesquite, and the jagged edge of the Chisos Mountains breaks the horizon. Camping is permitted in the floodplain below the largest adobe ruin in the park, the Johnson Ranch; and the road ends just north of Castolon near Tuff Canyon.

Along the back roads of Big Bend, there is a deep silence that runs along the river, up the canyon walls, and across the bluffs. Broken only by the trills of birds or the howl of coyotes, the silence stretches into memories of settlers past, and adventurers present. We drove off the pavement into the unknown and discovered a rare wilderness experience shared among sisters. ★

G. ELAINE ACKER is a freelance writer living in Austin.

NECESSITIES

Preparing for a trip through back roads of Big Bend is like preparing for a hurricane. Check your supplies, anticipate problems and mentally prepare for emergencies. You should speak with a park ranger and check the road conditions before traveling any of the backcountry roads, and a free permit must be obtained before camping at any backcountry sites.

Thoroughly inspect the vehicle—belts, hoses, tires, radiator—before departing, and carry spare parts and tools. Check the spare tire and carry a plug kit and portable air pump as a backup. “Take lots of water,” advised Valerie Naylor,

Big Bend’s director of public information. “And by ‘lots’ I don’t mean a quart. People should have several gallons of water.” The water supply should include an adequate drinking supply, as well as extra water for the vehicle’s radiator.

Naylor also advised stranded motorists to stay with their vehicles. “Depending on the time of year, it may be a while before help gets there,” she said. “But most of the time, people who are stranded should stay with their vehicle and not try to hike out unless they know exactly where they are and know that it’s only a few miles.” If you attempt to hike out of the backcountry, leave a note on the dashboard of the vehicle explaining the problem and where you are going. Take an adequate water supply (approximately two gallons of water per person per day during the hotter months) and stay on the road.

During the rainy season, July through October, the road conditions can change quickly. Campers should be prepared for a variety of weather conditions by packing suitable clothing and equipment.

The park guide offers the following guidelines:

1. Stay on the established roadways. No off-road travel is permitted.
2. Ground or wood fires are prohibited. Use only gas stoves or charcoal grills at backcountry campsites.
3. The use of firearms is prohibited.
4. Do not disturb any natural or historical features.
5. Obtain a free backcountry permit and camp only at designated sites.
6. Lock your vehicle if leaving it unattended; take valuables with you or secure them in a non-visible area. Break-in and theft from vehicles left unattended is a serious problem on isolated park roads, especially along the river.

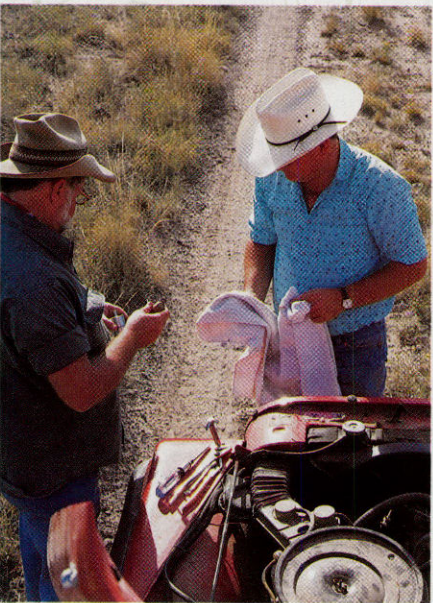
To obtain a copy of the *The Road Guide to Backcountry Dirt Roads of Big Bend National Park*, call the Big Bend Natural History Association: 915-477-2236.



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Top: No off-road travel is permitted in Big Bend. Four-wheel-drive adventurers should remain on established roadways and avoid damaging the fragile Big Bend ecosystem. **Above:** During the rainy season road conditions can change quickly, many roads flood and become impassable. **Left:** When traveling the backroads, visitors are miles from auto parts stores and experienced mechanics. Anticipate minor emergencies, carry spare parts and be prepared to make repairs if needed.



The
CASE
of the
Disappearing
CRAB Apples

Once abundant across much of the Hill Country, Blanco crab apple trees now are found only in three counties. Drought, an exploding deer population and other factors may be to blame for the decline, but several landowners and scientists now are trying to preserve the diminutive trees' future with replantings.

by Sheryl Smith-Rodgers



Back in the 1940s, so many hundreds of Blanco crab apple trees thrived along the hills and valleys of Crab Apple Creek in Blanco County that no one paid them any mind.

"They were so thick you couldn't ride a horse through them," recalled long-time resident David Granberg. "Then we woke up one day, and they were gone."

Well, almost gone. In isolated pock-

ets here and there across the rocky, sloping terrain of this Hill Country region, a few thorny mottes survive. Near them, however, usually lie dead crab apple trees, toppled over and decaying.

On the 1,500 acres of ranch land Granberg owns, he knows of only four surviving Blanco crab apple trees. On the nearby Crab Apple Creek Ranch, owner Don Grammer monitors a small valley along the creek that once grew thick with

Blanco crab apple trees. Now he can point to only five mottes of trees, and one is dead.

Botanists first turned their attention to the Blanco tree after 1885 when French pioneer and naturalist Julien Reverchon collected and distributed specimens of the tree from Blanco County. This and later collections from Central Texas probably were classified by botanists of the day as the very similar Iowa crab apple,

or they simply were left unnamed.

In 1911, Alfred Rehder, a plant taxonomist specializing in woody plants at the Arnold Arboretum at Harvard University, recognized these Central Texas crab apple specimens as a distinct variety of *Malus ioensis*, calling them *Malus ioensis var. texana*. Five years later, though, Liberty Hyde Bailey published a new name for the same species, *Pyrus ioensis var. texana*, a classification most modern-day botanists accept.

Actually called a prairie crab apple, the Blanco crab apple presently is found only in Blanco, Kerr and Kendall counties. Classified in the rose family and the pear genus, the Hill Country tree is kin to other fruit-bearing trees native to Texas, such as the Mexican plum, cherry laurel and black cherry.

Thorny and intricately branched, the Blanco crab apple tree reaches a maximum height of only 10 to 15 feet, often forming a leaning trunk measuring 10 inches in diameter. In the wild, the tree forms dense thickets in ungrazed areas due to its ability to regenerate from underground roots.

In April, the trees bear thousands of fragrant pink or white flowers, producing hard, yellow-green apples around September or October. Enjoyed raw only by wildlife, the tart fruit, measuring up to two inches wide, encloses one to three seeds.

Despite its mouth-puckering tendencies, the crab apple yields some tasty cooked concoctions. Lorraine Swierc is one of several Blanco cooks who annually stirs up a batch of Blanco crab apple jelly. Swierc, who lives on a ranch originally owned by her grandparents, learned how to make the jelly from her grandmother and mother.

"My dad used to bring in some apples before they were ripe because they smelled so good," Swierc recalled. "Later my dad, mother and we kids would lay tarps under a tree, then shake it or hit it with a stick to make the apples come down. You can't climb the trees because they're so sticky with thorns.

"Crab apples are very bitter. You'd never think of eating one," she added.

Swierc, too, remembers walking from one tree to another at a time when Blanco crab apple trees numbered in the hundreds. Names like Crab Apple Road, Crab Apple School and the long-gone community of Crab Apple pay tribute to the tree's former abundance.

These days, Crab Apple Road is officially called Blanco County Road 104, although a rickety old wooden sign off Ranch Road 1888 still bears the former name. And the old rock schoolhouse, occupied in the early 1900s, still stands on Grammer's property.

Why are these once prolific trees declining in number? Many botanists and horticulturists cite overgrazing by deer and livestock that especially enjoy the tender root suckers. Granberg blames other reasons.

"We had a terrible drought in the 1950s, and the trees didn't replace themselves. The (Blanco) river was so dry a turtle couldn't get a drink of water," he said. Also, populations of white-tailed deer before the 1950s stayed low due to year-around hunting and a screw worm epidemic, Granberg recalled. After hunting became regulated and screw worms were eradicated, deer populations increased, thus adding pressure to the already struggling crab apple trees.



Although once recognized as a threatened plant by the Texas Organization for Endangered Species (TOES), the Blanco crab apple tree no longer is included on the group's roster. That's because in the early 1980s, TOES wiped its lists clean and initiated a new process of selection. Today individuals must fill out a petition for a certain plant and document why that plant should be considered endangered. Then the TOES plant committee votes on the application. The entire process can be lengthy, complicated and time-consuming.

So far, no one has made a case for the Blanco crab apple tree.

But whether recognized as endangered

or not, conservationist J. David Bamberger has nurtured and raised more than 20 species of native trees on his Blanco County ranch, including the Blanco crab apple tree. In the early 1980s, he discovered an isolated motte of three crab apple trees growing beneath some post oaks on a hill. His attempts to gather fertile seeds that year were unsuccessful, but the following year his efforts were rewarded with 15 seedlings.

Today approximately 25 Blanco crab apple trees thrive on the ranch, including the three original trees. "They're hardy and tough little trees," Bamberger noted.

Intriguing and puzzling—that's how the late Benny Simpson, a research scientist with the Texas Agricultural Experiment Station, saw the Blanco crab apple.

"The prairie crab apple comes across the Plains states, into Oklahoma, and stops at the Red River," he said. "We should find some around Dallas, but we haven't seen any. So it skips down from the Red River to the Hill Country, which isn't right. That's why the tree is so intriguing to me."

Because of its native roots in the Hill Country, horticulturalists with the Texas A&M Research and Extension Center in Uvalde more than a decade ago tested the Blanco crab apple as a rootstock for apple tree cultivation. Dr. Loy Shreve, who since has retired, theorized that the crab apple would be more resistant to cotton root rot, a disease known to ravage apple orchards. Approximately seven years of work finally demonstrated that the Blanco crab apple could not provide a rootstock for the growing Hill County apple industry.

These days, small mottes of Blanco crab apple trees struggle to survive along the hills and valleys of Blanco Country. Can anything be done to save them? People such as Bamberger are taking the initiative to do just that. Thanks to their efforts, this rare and tenacious tree will prevail.

★
SHERYL SMITH-RODGERS is a freelance writer living in Blanco.

PRESERVED FOREVER

THE IDEA OF PROTECTING WILDLIFE HABITAT IN PERPETUITY IS THE REASON FOR CONSERVATION EASEMENTS. BUT WHY WOULD A LANDOWNER AGREE TO SEVERELY RESTRICT FUTURE USES OF HIS OR HER LAND? THE BENEFITS, AND THE RELATIVE EASE WITH WHICH THEY CAN BE OBTAINED, MAY SURPRISE YOU.

ARTICLE BY JEFF FRANCELL

PHOTOS BY GLENN HAYES



Dr. Gary Schwarz is an oral surgeon in McAllen, Texas. He also is the steward of 11,000 acres in northwestern Starr County. Schwarz is no ordinary landowner. He has spent the past 13 years investigating and implementing the latest land management, wildlife habitat improvements and conservation techniques on his piece of Texas, including the use of conservation easements. A conservation easement is a legal agreement that permanently restricts the type and amount of development that can occur on a property. With a conservation easement in place, the land remains in private ownership and an income tax deduction and a reduction in future estate taxes may result. Although the concept is new, Schwarz hopes one day conservation easements will be recognized as a mark of excellence for private farms, ranches and natural habitats in the state.

Schwarz inherited his love for the South Texas brush country from his parents and grandparents. While he was growing up, he witnessed a gradual change in this wild country. Since the 1930s, most of the native brush habitat of the Lower Rio Grande Valley has been cleared and replaced by urban areas, farms and ranches. Farming, ranching, and homebuilding made many South Texas families economically successful, but they had huge impacts on native plants and animals. Clearing native brush changed South Texas forever. If a farmer or rancher allows their cleared land to lie fallow for a few years, the brush eventually returns—but it is much less diverse. Where different species of scrub, cactus, native grasses and forbs once flourished, primarily mesquite trees, prickly pear cactus and introduced grasses grow back. This lack of brush diversity makes for inferior wildlife habitat. Deer, birds, small mammals and the predators that feed

on them do not thrive in these altered environments. Today, only about five percent of the Lower Rio Grande Valley remains virgin brush.

When Schwarz was growing up there was a long stretch of highway north of McAllen through miles of thick brush. The land was as it had been for many years, and Schwarz could look out the car window and see glimpses of deer, coyotes and other wildlife. When the time came for that land to be plowed under, young Schwarz cried. At that time, he did not realize the people who owned the land had to clear it to provide for families like his own.

This and other outdoor experiences made Schwarz want to do something that would give his children a chance to see the brush country as it was when he was young. He decided that one day he would buy a piece of property and not only preserve it, but enhance it through the best land management practices science had to offer.

While he was in dental school, Schwarz got to know a few doctors who also had hunting and conservation interests. In 1983, he persuaded several doctors and fellow students to join in the purchase of 1,000 acres north of McAllen from the V.H. Guerra family. The partners called the property El Tecomate Ranch located in Starr County near San Isidro.

Schwarz was so excited about owning part of El Tecomate he started reading all available materials about ranching, farming, wildlife habitat and the historic native brush country. He read so much about land management he delayed taking his dental board examinations, to the chagrin of his wife, Marlee. While getting his oral surgery practice in McAllen started, he continued to study land management and wildlife. If a book or a study struck him as particularly interesting or insightful, Schwarz invited the author out to visit his property.

Schwarz had an especially good relationship with one of these experts. Dr. Sam Beasom was director of the Caesar Kleberg Wildlife Research Institute at Texas A&I University in Kingsville, now called Texas A&M University at Kingsville. The Institute conducts research aimed at improving wildlife management techniques for landowners in Texas. Schwarz was particularly impressed with the Institute's applied research combining good stewardship practices with the revenue needs of Texas's landowners. In 1983, Beasom began to make annual trips to El Tecomate. It was Beasom who first introduced Schwarz to the possibilities of conservation easements. Schwarz was excited by the idea because it gave landowners an economic incentive to maintain native habitat.

By 1986 Schwarz and his partners had expanded their holdings in El Tecomate

Ranch to more than 2,600 acres. About the same time, the partnership decided to place the ranch under a conservation easement. The potential holder of the easement was the Caesar Kleberg Wildlife Research Institute. The law allowing conservation easements in Texas had passed in 1983, but there were two major hurdles Schwarz and his partners had to overcome. First, they did not own the mineral rights to the property. A conservation easement will not qualify for a tax deduction if a third party owns the mineral rights to that property, unless the landowner can prove that the probability of surface mining occurring on the property is "so remote as to be negligible." They hired a professional geologist to investigate the potential for surface mining on El Tecomate. The findings of this investigation satisfied federal and state law and the partners were one step closer



PHOTOS © GLENN HAYES

Wildlife such as black-chinned hummingbirds, opposite, will continue to find a home on El Tecomate Ranch thanks to Dr. Gary Schwarz, above, who protected the land with a conservation easement.

El Tecomate Ranch in Starr County will be protected from the clearing and habitat destruction that changed much of the South Texas brush country.



er to permanently preserving a part of the South Texas brush.

The second hurdle involved the ranch mortgage. To be eligible for a tax deduction, the IRS required that Schwarz get a mortgage subordination agreement from his bank. He knew this would be difficult, because with the easement the property would be worth less to the bank in the event of a default by the owners. About the time Schwarz was negotiating the conservation easement, a couple of his original partners decided to sell their share of El Tecomate. Schwarz had two prospective new partners, but they wanted a little extra incentive before they committed. The tax advantages of the conservation easement were enticing to the potential partners. The bank finally agreed that the conservation easement would be good for all concerned.

Schwarz finally had accomplished his childhood dream. He had permanent-

ly protected a significant example of the wild South Texas brush. But he was not finished. In 1989, he purchased an additional 1,400 adjoining acres and donated a conservation easement on this property to the Kleberg Institute as well. In the early 1990s, Schwarz leased 7,000 acres adjoining the ranch from the V.H. Guerra family. Schwarz helped the Guerras put 4,000 of these acres under conservation easement. Recently, Schwarz and four partners purchased 4,000 more acres of land just north of McAllen near McCook and have donated a conservation easement on this property to the Valley Land Fund.

For his efforts, the Texas Parks and Wildlife Department has recognized Schwarz as one of the 10 Outstanding Lone Star Land Stewards of Texas. This program identifies landowners in Texas's 10 ecological regions for their accomplishments in habitat manage-

ment and wildlife conservation. Schwarz won the award for the South Texas Plains, and was recognized for many of his land stewardship practices, including his use of conservation easements.

Schwarz has a good relationship with the holder of El Tecomate's conservation easements. This holder, the Kleberg Institute, serves much as a trustee, assuring that the landowner adheres to the terms of the legal agreement. The state and federal laws pertaining to conservation easements are broad, allowing landowners to pick and choose how restrictive they want their easement agreements to be. The more restrictive the easement, the more tax benefits the landowner is likely to receive.

On the original 2,600 acres, known as El Tecomate South, the partners agreed not to clear, alter, destroy or develop the property. In addition, they chose to donate income from cattle leas-

ing to the Kleberg Institute for wildlife research on the ranch. The other easements on El Tecomate are not as restrictive as the easements on the original partnership. They do not restrict revenue sources from hunting and cattle leases. These conservation easements allow Schwarz and the Guerras to manage the property as they see fit, as long as the natural habitats of the land are permanently protected.

The conservation easements the Institute manages on El Tecomate and the V. H. Guerra properties are the only such arrangements the Institute currently holds. Dr. Charles DeYoung, a dean at Texas A&M at Kingsville, said the Kleberg Institute would consider similar agreements on a case-by-case basis.

Schwarz believes that it is up to each landowner to decide what kind of legacy he or she wants to leave children and grandchildren. He wants to leave his part of El Tecomate to his family as a place to hunt and experience the outdoors. He believes the ranch is worth more than its value as a monetary investment. "Part of the legacy I want to leave my grandchildren is a place for them to go and experience what I was able to experience as a young man," Schwarz said. When critics suggest that he has given up the right to make management decisions on his own land, Schwarz replied, "Managing the land is how I get my joy. I maintain control of what happens on the property. Most people would think that I have given up rights. Anything that I have given up I would not have done anyway."

There are fewer than 20 private organizations willing to hold conservation easements in Texas. Most of these organizations have regional or geographically specific interests. There also are several public agencies that will selectively take on conservation easement responsibilities. Schwarz feels the

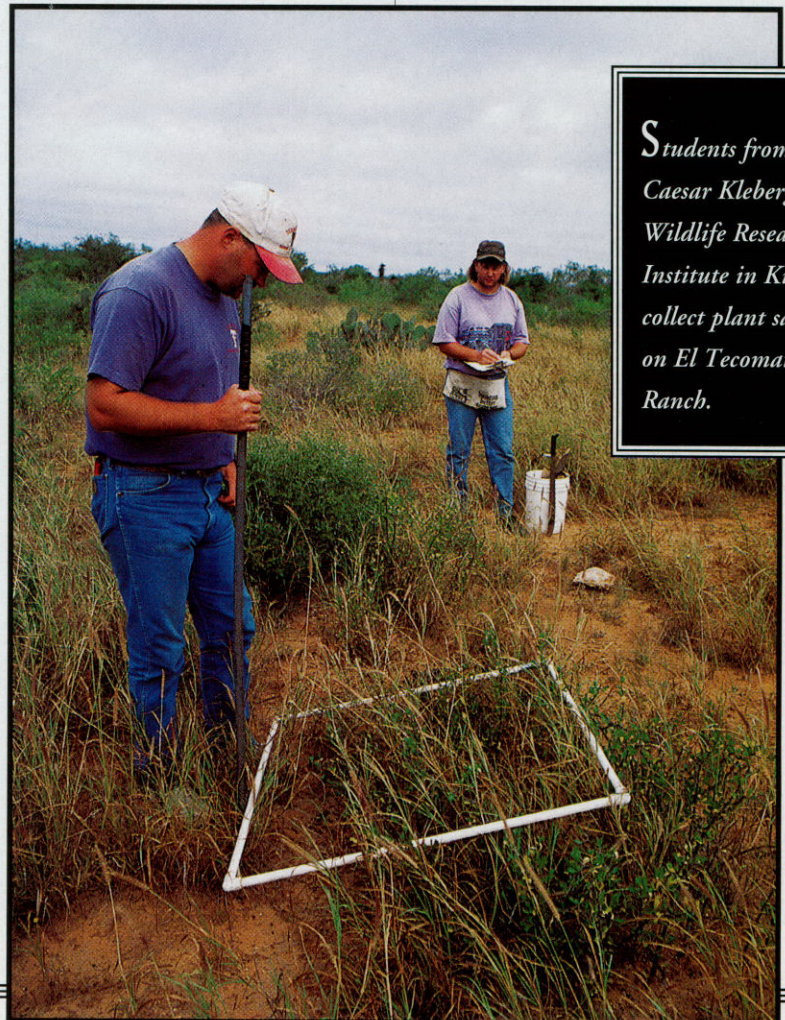
arrangement works best if the landowner and the easement holder have similar backgrounds and perspectives. "Farmers should look for organizations that have knowledge of farming practices, and ranchers should look for organizations that understand the needs of ranchers," he said. "A conservation easement is simply an agreement to manage the land by staying within parameters that the landowner sets. The responsibility of the easement holder is to make sure that you operate within the terms that you set for yourself."

WHAT IS A CONSERVATION EASEMENT?

Property owners in Texas protect millions of acres of land that have scenic,

natural, agricultural or historic value. One of the greatest threats to wildlife and native habitats in Texas is the breakup of family lands. Landowners have a variety of tools available to them to prevent this breakup and preserve the special qualities of their property. A conservation easement is one such tool. Easements can be tailored to meet the specific needs of individuals, whether the person owns 10,000 acres in South Texas or 10 acres in the Texas Hill Country.

Conservation easements are not for all landowners. Each individual has to evaluate his or her situation and priorities. Easements can be a powerful tool for people who want to keep the land intact, but are concerned about the tax burden the property can create for their heirs. Conservation easements



*Students from the
Caesar Kleberg
Wildlife Research
Institute in Kingsville
collect plant samples
on El Tecomate
Ranch.*

also can protect property for landowners who have a deep affection for their land, but are concerned that future caretakers might not feel the same.

HOW THEY WORK

A conservation easement is a binding, written contract between a landowner and a qualified conservation organization or government agency. This contract permanently conveys specified property rights for designated conservation purposes. With a conservation easement, landowners

can protect their land permanently without giving up ownership. The landowner continues to live on the land and can manage it, sell it or pass it on to heirs.

When a person owns property, many rights are associated with that ownership. For example, the landowner has the right to harvest timber, grow crops, build on the property or sell it in any manner allowed by local law. When landowners sell or donate an easement, they permanently give up one or more of those rights. With a conservation easement, a landowner might

give up the right to subdivide or develop his or her property, but retain the right to raise cattle, farm and hunt on the land. Future owners of the property also are bound by the easement agreement.

In many cases, conservation easements result in federal income and estate tax reductions, and may lower state property taxes. Generally, a conservation easement is donated to a public agency or a land trust. If the easement agreement meets federal tax code requirements, the dollar value of the rights conveyed can be treated as a char-

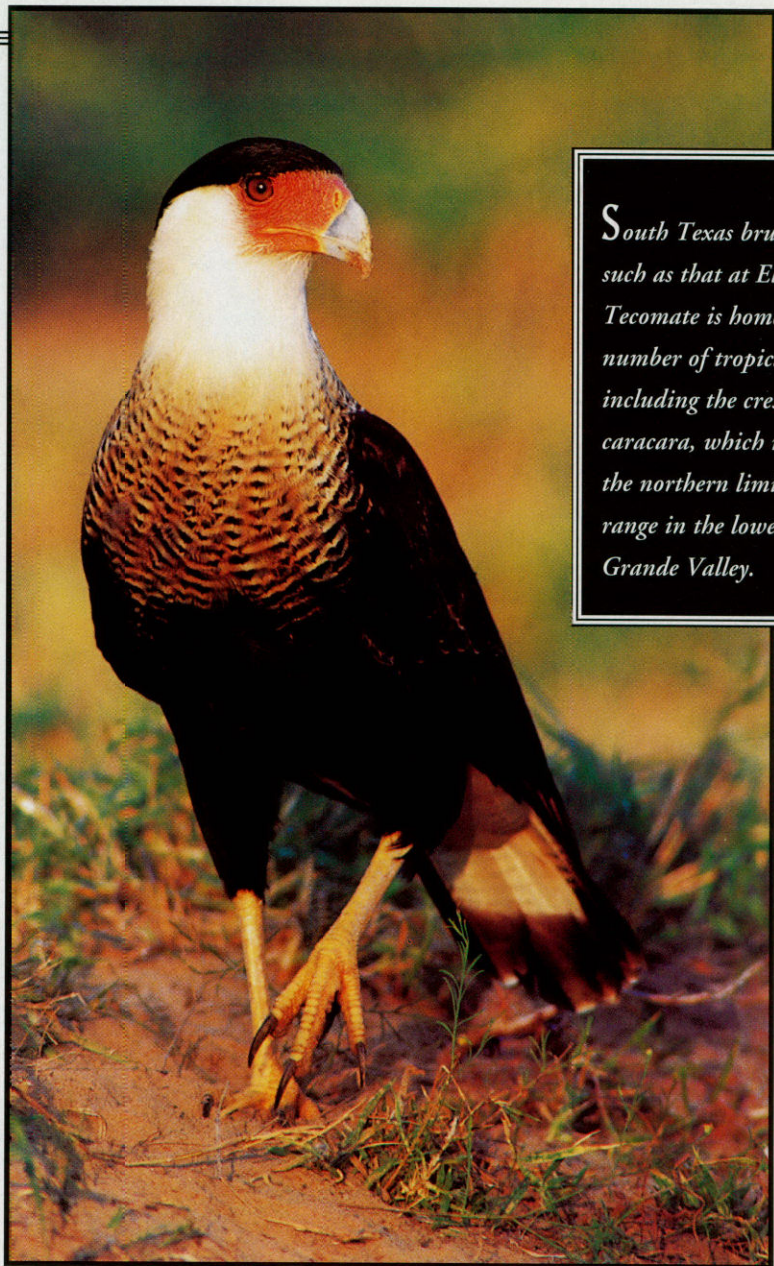


Trophy white-tailed bucks can be one of the results of good land management in South Texas.

itable gift and deducted from income taxes. Conservation easements also can have an impact on estate taxes by reducing the appraised value of a property. Estate tax appraisals evaluate a property for its highest and best use. If the landowner limits potential use, such as the right to subdivide, then the market value of that property is reduced. This often results in a lower estate tax burden for the property owner's family. Landowners who are interested in selling or donating a conservation easement need to discuss the legal and financial implications of these agreements with their professional advisors.

WHAT IS A LAND TRUST?

A land trust is a private organization that is directly involved in protecting land for its natural, recreational, scenic, historical or productive value. These organizations are usually willing to purchase land or accept donated properties and easements for conservation purposes. Most of these groups have different conservation objectives: some work in specific geographic areas or concentrate on protecting different natural or cultural features across Texas. As the holder of a conservation easement, the land trust is responsible for monitoring the terms of that legal agreement. Generally, a representative of the land trust makes scheduled, annual visits to a property to ensure that the agreement is honored by the current owner. Nonprofit groups that hold easements and land for conservation purposes are a growing phenomenon across the country. Currently there are nearly 1,100 land trusts in the United States that are directly involved in the preservation of millions of acres of farms, wetlands, wildlife habitat, parks, forests, ranches, watersheds, coastlines and river corridors. These



South Texas brushland such as that at El Tecomate is home to a number of tropical birds, including the crested caracara, which reaches the northern limit of its range in the lower Rio Grande Valley.

organizations can be national, such as The Nature Conservancy, or a local group like the Valley Land Fund in South Texas.

For more information about land trusts or conservation easements, call the Texas Parks and Wildlife Department at 512-389-4779. ★

JEFF FRANCCELL is a Texas Parks and Wildlife Department employee working with the Texas Wetlands Conservation Plan.

Statewide Conference on Land Trusts

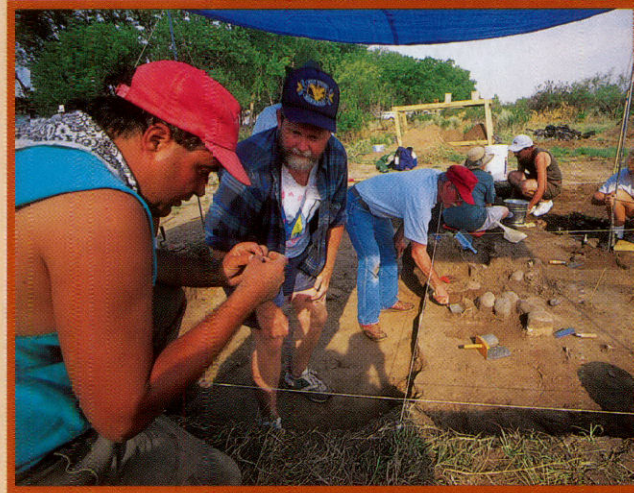
The Texas Parks and Wildlife Department is sponsoring a conference entitled "Texas Land Trusts: Grassroots Land Conservation in Your Community," to be held at the National Wildflower Research Center in Austin on June 13 and 14. The conference will be of interest to anyone who wants to start a land trust or learn more about community-based land conservation. For registration information, call 512-389-4868.

SPANISH

MISSION

SITE SET FOR

EXCAVATION



© PHOTOS BY BOB PARVIN



The story of a little-known Spanish mission comes to light June 14–21, as hundreds of Texas Archeological Society (TAS) Field School volunteers help investigate one of the early locations of Mission Espiritu Santo de Zuñiga on the lower Guadalupe River.

Built to defend the Spanish coast of Texas and to pacify Indians in the region, Mission Espiritu Santo was first established near Matagorda Bay in 1722. Later, the outpost moved to the site of the planned field school excavation, some 10 miles above present-day Victoria on the Guadalupe River.

Here it served until 1749, when Spain ordered Espiritu Santo and its guardpost, Presidio Nuestra Senora de Loreto (“La Bahia”) to relocate 30 miles westward on the San Antonio River.

According to Dr. Thomas Hester, University of Texas at Austin archeology professor who will direct the 1997 field school, the earlier mission complex probably was no match for the scale and elegance of the third location, now preserved at Goliad State Park. However, because of its relatively undisturbed setting on a private Guadalupe River ranch, Hester said, “Espiritu Santo ‘number two’ represents a rare opportunity to examine the mission process of the early part of the 18th century and to carefully record mission Indian materials through large area block excavations.”

The site occupies high ground overlooking a scenic river bend. Where one mission building stood, a few standing sandstone walls remain. Another structure is noted by a mound deposit. In areas nearby are extensive midden and campsite deposits, rich with artifacts of two of the tribes known to have accepted mission life at Espiritu Santo, the Aranama and Tamique.

TAS Field Schools attract persons of all ages and backgrounds who share a common interest in learning about and helping to preserve Texas’s rich archeological heritage. Volunteers work at excavation sites, on surveys, in the field laboratory and at other tasks during the week. Professional and skilled amateur archeologists work side by side with novices. Thorough reports are published within 24 months and all cataloged excavation material and records are kept intact for future reference.

Registration ends May 15, but may be extended in order to allow for maximum participation levels (500 to 600 persons). For information, contact the Texas Archeological Society Field School Program, c/o Center for Archeological Research, University of Texas, San Antonio, Texas 78249, phone 210-458-4393. ★

BOB PARVIN is a freelance writer and photographer living in Austin.



Left: A scenic river bend in the lower Guadalupe was the site of the second Mission Espiritu Santo in the early 18th century. In June, Texas Archeological Society volunteers will gather here for their annual field school. **Opposite:** Professional and skilled amateur archeologists work side by side with novices at past TAS field schools.

Above: The third Mission Espiritu Santo, which was moved from the Guadalupe River to the San Antonio River in 1749. It is preserved today in Goliad State Park.

The Nuptial Tree

BY EZRA WARD



©GORDON RICKE

It's pretty much a truism among folks who enforce the fishing laws that a fellow who fishes without a license, or has too many fish on his stringer, or keeps one that's undersized or violates a slot limit also will tend to be, shall we say, creative in his answers to questions about these activities. Such fishermen have been known to say that the fishing pole they laid down at their feet upon the approach of a game warden wasn't theirs; that the stringer they spent all morning catching and that was anchored right there must be some other fellow's; and that, in fact, they hadn't been fishing at all that day and had only chanced upon this fishing hole while on a hike in search of wild berries to take home to a hungry family. A few of the more adventurous of these tale-tellers have even been known to try to walk off right then and there so as to continue with their "berry-picking" or other alleged activity, all the while making plans to sneak back later for their gear and fish.

Kevin Blankenship, the Texas Parks and Wildlife Department game warden for the Three Corners area, knew all that and had seen and heard it all before, both in his training and subsequent on-the-job

experience. So when he went out late one Saturday morning in early May to check the fishermen at Hoskins' Cove, he planned to do what game wardens often do: observe the fishermen for a period of time before approaching them. He knew a spot where he could pull off the road, slip through the fence and walk half a mile to a bluff that overlooked the cove off the lake.

Kevin was in a hurry. It was nearly eleven o'clock and he had promised his wife, Wanda, that he would be back in plenty of time to clean up and put on his best suit to escort her to the two o'clock wedding of one of her customers from her hairdressing salon. Wanda lived for such events and had bought a new dress and pair of shoes for the occasion. She would not take kindly to his being late.

He parked his car, eased through the barbed wire and broke into a trot to his favorite observation point. Kevin was a fit runner and it took him only five minutes to reach his vantage point, even over rough ground and through brush. After 30 minutes of observation, during which he was able to document that each and every man and woman at the cove was, in fact, fishing, he turned and began the

jog back to his car. This will be a piece of cake, he thought; I can be home by 12:30.

About halfway back to the vehicle was a shallow depression, at the bottom of which was a seeping spring that fed a trickling brook that flowed eventually into the cove. He had just passed under the towering live oak that shaded this spring and was going up the following slope when he stopped. Just ahead, peering out from the edge of the grass and brush, was a large javelina. Kevin didn't know whether it had seen him or not, and he could see that it had only one good eye. He knew javelinas can't see well, but have keen senses of smell and hearing. If there was a breeze, he thought, it was taking his scent away from the animal.

After a few moments, the javelina made a low grunt and abruptly emerged from the brush and began trotting straight toward Kevin. Almost simultaneously, javelinas appeared from half a dozen other points in the brush line, taking the same course. There were about 20 in all, but Kevin didn't take the time to count them. He was thinking about the damage he had seen them do to unwary hunting and ranch dogs. Javelinas, which are actually collared peccaries, don't get that big—this old boar was the biggest Kevin had seen and it would only go about 50 pounds—but they have quick reflexes and razor-sharp canine teeth and he had no desire to tangle with them.

The old boar stopped about 10 paces away and all the others followed suit. Kevin guessed it had smelled him. The animal emitted an ominous growl and then clicked its teeth sharply. All 20 of the javelinas did the same, and the clattering was particularly unnerving in that it was being made by the very weapons Kevin feared. He was pondering what he should do when the one-eyed javelina suddenly decided for him. The boar, and the whole herd, began trotting forward again. Kevin turned and sprinted back to the live oak, hopped nimbly onto a low branch, and then climbed one branch

higher just for good measure.

The javelina herd gathered beneath him and the snorting, grunting and clicking of teeth began again. It kept up for several minutes, then began to subside somewhat, and a few of the javelinas lay down there in the shade. Others went over to drink at the spring. Kevin waited patiently, hoping they would all move on. He looked at his watch. It was just past noon and there was still plenty of time. But at 12:30, the javelinas hadn't moved on; in fact, the entire herd lay around the base of his tree.

The javelinas seemed so peaceful that Kevin thought he might just be able to ease down out of the tree and walk away, so long as he made no noise and moved slowly. But the instant he stepped down onto the lower branch, the old one-eyed boar sprang to its feet, grunted and clicked its teeth ominously. The rest of the herd did the same and Kevin retreated to his higher branch. After a time, the herd gradually began to lie back down again.

A sense of urgency began to grip Kevin. He did not want to face Wanda's wrath should he be late. He had no radio with him, but he did have his department-issued .40 caliber Glock pistol with a magazine of 15 rounds and two spare magazines. Forty-five bullets were more than enough to dispatch the entire herd of easy targets that lay at his feet, but Kevin was trained to protect game animals, not kill them needlessly. However, there wasn't anything in the regulations that said you couldn't scare a game animal when it was scaring you.

Kevin drew his pistol and fired two bullets harmlessly into the dirt. This had an immediate effect. The entire herd leaped to their feet and raced up the slope and into the brush from whence they had come, several of them squealing loudly.

The game warden laughed with relief at the sight. But he was by nature a cautious man, so he waited as long as he could to give them time to clear out of the area. At 1:10, Kevin eased out of the

tree onto the ground. He had abandoned any thought of going on to the cove to check on the fishermen; he figured if he really hurried, he just had enough time to get home, shower and dress in time to take Wanda to the wedding. He walked carefully up the slope, eyeing the edge of the high grass and brush ahead.

He hadn't taken three steps into the high grass before he was startled by a series of explosive *whoofs* followed immediately by the sound of teeth clicking all around him. Kevin couldn't see any of them, but he had heard enough. He sped back to the safety of the tree. As he ran, he looked over his shoulder and saw the old boar emerge from the brush and bark sharply at him, almost like a dog.

It was the longest day of Kevin Blankenship's life. Not only was he thirsty and aching from sitting on a tree branch all day, but he began to wonder how long he would be the butt of jokes from his colleagues. Most of all, however, he wondered how long Wanda would be angry with him.

Sometimes the javelinas came up under the tree or to drink at the springs, sometimes they disappeared into the grass. Twice more Kevin tried coming down, but both times, as soon as he moved away from the tree, the old boar would grumble or snort or bark and the other javelinas would click their teeth and advance menacingly until he went back to the safety of his tree branch.

Just as the sun dipped to the horizon, he was sitting there on his branch, feeling sorry for himself, when he heard the big javelina *whoof* several times up in the brush and then came the rustling and cracking and thudding hooves of the whole herd moving off somewhere in the grass. It was as though something else frightened them off, Kevin thought.

But he was in no hurry to come down from his perch. He waited several more minutes to see what would happen next and was still sitting there in the tree when Wanda came walking out of the brush and called his name. She was still wear-

ing the new dress she had bought for the wedding, now trimmed in grass burrs, but she had left behind the new high-heels in favor of her workout sneakers. Kevin sheepishly came down from the tree.

"Why, Kevin Blankenship! What in the world are you doing up in that tree?" she said. "I've been worried to death!" And she ran over and hugged him tightly. He told her about the javelinas and she didn't complain once about his not showing up to take her to the wedding. She said she had gone to the ceremony, but left right after to look for him and had searched everywhere until she found his car. So it didn't turn out so badly after all.

A few days later, Kevin ran into the rancher who owned the property where the incident took place, having coffee at the Blue Plate Cafe. When Kevin told him about his experience, the landowner laughed a big belly laugh.

"Shoot, Blankenship," the hog farmer said, "that's just ol' One-Eye Jack and his herd. Every day when it starts gettin' warm they head to that old tree for shade and the spring for water. All they wanted was their midday spot and they just kept comin' back to it and findin' you in the way. If you'd gone back out the other way and circled wide, they'd have never bothered you."

Still, every time after that, when Kevin Blankenship went to check on the fishermen at Hoskins' Cove from his favorite observation point, he gave the hollow with its big oak and small spring a wide berth. ★

If you have an outdoor story you'd like to share with Ezra Ward, jot it down and send it to his attention at Texas Parks & Wildlife magazine, 3000 South IH 35, Suite 120, Austin, Texas 78704.

But don't be surprised if it looks somewhat different if Ezra decides to use it and you see it in print through the lives and adventures of his characters. Ezra and the folks in Three Corners, after all, have their own way of looking at things.

MAY

PANHANDLE-PLAINS

- MAY: QUEEN OF THE VALLEY TRAILWAY TOURS *each Saturday and Sunday, Caprock Canyons SP near Quitaque, 806-455-1492*
- MAY 3: MACEY'S RIDGE HIKE, *San Angelo SP at San Angelo, 915-949-4757*
- MAY 8: CANYON RAMBLINGS, *Caprock Canyons SP near Quitaque, 806-455-1492*
- MAY 8, 12: BUFFALO SOLDIERS, *Copper Breaks SP near Quanah, 817-839-4331*
- MAY 10: "NOSE TO NOSE WITH THE BUFFALO," *Caprock Canyons SP near Quitaque, 806-455-1492*
- MAY 17: PETROGLYPH TOUR, *San Angelo SP at San Angelo, 915-949-4757*
- MAY 26: ANNUAL APPRECIATION DAY, *Copper Breaks SP near Quanah, 817-839-4331*

PRAIRIES AND LAKES

- MAY: TRADITIONAL COWBOY MUSIC CONCERTS, *call for dates, Cleburne SP near Cleburne, 817-645-4215*
- MAY: HISTORICAL TOURS *each Saturday, Stephen F. Austin SHP at San Felipe, 409-885-3613*
- MAY 9: "AN EVENING WITH SUSAN EISENHOWER, TEXAS STYLE," *Eisenhower Birthplace SHP in Denison, 903-465-8908*
- MAY 9-11: OUTDOOR SMARTS WEEKEND, *Meridian SP near Meridian, 817-435-2536*
- MAY 10: KIDS' WILDERNESS SURVIVAL, *Cleburne SP near Cleburne, 817-645-4215*
- MAY 10, 24: DINOSAUR WALK, *San Angelo SP at San Angelo, 915-949-4757*
- MAY 10: TRACK IDENTIFICATION, *Cooper Lake SP near Sulphur Springs, 903-945-5256*
- MAY 10, 24: WILD BIRD REHABILITATION, *Dinosaur Valley SP near Glen Rose, 817-897-4588*
- MAY 10: JET BOAT AND OUTBOARD RACES, *Atlanta SP near Atlanta, 903-796-6476*
- MAY 10: STAGECOACH RIDES, *Fanthorp Inn SP at Anderson, 409-873-2633*
- MAY 10, 17: CHILDREN'S FISHING DERBY, *Washington-on-the-Brazos SHP at Washington, 409-878-2214*
- MAY 17: "FEAST IN THE FIELDS," *Cooper Lake SP near Sulphur Springs, 903-945-5256*
- MAY 17: SECOND ANNUAL GRAND SLAM OF BIRDING, *Cedar Hill SP near Cedar Hill, 972-293-3871*
- MAY 24: TNRCC MASTER COMPOSTER REUNION, *Cedar Hill SP, 972-291-0209*



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Get a close look at Big Thicket habitats on nature hikes at Village Creek State Park on May 3, 17 and 31.

- MAY 30: CAMPFIRE STORIES, *Cooper Lake SP near Sulphur Springs, 903-945-5256*
- MAY 31: BEAR CAVE HIKE, *Cooper Lake SP near Sulphur Springs, 903-945-5256*

PINEYWOODS

- MAY 3, 17, 31: NATURE HIKE, *Village Creek SP near Lumberton, 409-755-7322*
- MAY 9, 23: NIGHT HIKE, *Village Creek SP at Lumberton, 409-755-7322*
- MAY 10: "SNAKES AT THEIR BEST," *Martin Dies, Jr., SP near Jasper, 409-384-5231*
- MAY 10, 12: "GOOD COOK'S GUIDE TO HARDY PERENNIALS," *Martin Dies, Jr. SP near Jasper, 409-384-5231*
- MAY 17: "FLOATING THE FORKS," *Martin Dies, Jr., SP near Jasper, 409-384-5231*

GULF COAST

- MAY: BIRD AND WILDLIFE TOURS *each Thursday and Saturday, Fennessey Ranch near Refugio, 512-529-6600*
- MAY: NATURE ACTIVITIES *each Saturday and Sunday, Brazos Bend SP near Needville, 409-553-5124*
- MAY 11, 17: BEACHCOMBING AND SHELLING TOUR, *Matagorda Island SP, 512-983-2215*

HILL COUNTRY

- MAY 1, 8, 15, 22, 29: DEVILS WATERHOLE CANOE TOUR, *Inks Lake SP near Burnet, 512-793-2223*
- MAY 2, 3, 16, 29: GREEN CAVE BAT FLIGHT OBSERVATION, *Kickapoo Cavern SNA near Brackettville, 210-563-2342*
- MAY 2, 3, 16, 17, 30, 31: PRIMITIVE CAVE TOURS, *Kickapoo Cavern SNA near Brackettville, 210-563-2342*
- MAY 3: "LET'S GO FISHING!," *LBJ SHP near Johnson City, 210-644-2252*
- MAY 3, 4: SPRING WALKFEST, *Lost Maples SNA near Vanderpool, 210-966-3413*
- MAY 3, 17, 24: ETHNOBOTANY AND PLANT IDENTIFICATION, *Honey Creek SNA near Bulverde, 210-438-2656*
- MAY 10: TREE IDENTIFICATION, *Honey Creek SNA near Bulverde, 210-438-2656*
- MAY 10, 24: BIRDING TOUR, *Devils River SNA near Brackettville, 210-395-2133*
- MAY 11: HORSEBACK OUTING, *Hill Country SNA near Bandera, 210-796-3984*
- MAY 17: SIX-MILE HIKE, *Pedernales Falls SP near Johnson City, 210-868-7304*
- MAY 17, 31: BAT FLIGHT OBSERVATION, *Devil's Sinkhole SNA near Brackettville, 210-563-2342*
- MAY 23: WILDFLOWERS AND VINEYARDS, *Becker Vineyards at Stonewall, 210-997-6417*
- MAY 24: COMANCHE TREATY AND POW-WOW, *Fort Martin Scott near Fredericksburg, 210-997-4379*
- MAY 26: MEMORIAL DAY PROGRAM, *Admiral Nimitz Museum and Historical Center in Fredericksburg, 210-997-4379*
- MAY 31: WEST CAVE PRESERVE OVERNIGHT, *near Austin, 210-855-3442*

BIG BEND COUNTRY

- MAY 3, 24: BUS TOUR, *Big Bend Ranch SP, 512-389-8900*
- MAY: LIVING HISTORY EVENTS *every other weekend, Fort Leaton SHP at Presidio, 915-229-3613*
- MAY 9-11: DESERT SURVIVAL, *Big Bend Ranch SP, 915-229-3416*
- MAY 17-18: "MAP AND COMPASS," *Big Bend Ranch SP, 915-229-3416*

SOUTH TEXAS PLAINS

- MAY 3-5: CINCO DE MAYO CELEBRATION, *Goliad SP at Goliad, 512-645-340*

JUNE

PANHANDLE-PLAINS

JUNE: QUEEN OF THE VALLEY TRAILWAY TOURS *each Saturday and Sunday, Caprock Canyons Trailway SP near Quitaque, 806-455-1492*

JUNE: "SAGA OF FORT LEATON" *each Saturday and Sunday, Fort Leaton SHP at Presidio, 912-229-3613*

JUNE 5: BIRD WATCHING AND PLANT IDENTIFICATION, *Las Palomas WMA/Ocotillo Unit near Presidio, 915-345-2954,*

JUNE 7: 5TH ANNUAL NATIONAL TRAILS DAY CELEBRATION, *Caprock Canyons Trailway SP near Quitaque, 806-455-1492*

JUNE 7: DINOSAUR WALK, *San Angelo SP at San Angelo, 915-949-4757*

JUNE 7: ADULT ROUGH FISH CONTEST AND KIDS' FISHING, *Lake Arrowhead SP near Wichita Falls, 817-528-2211*

JUNE 7, 14, 21, 28: "NATURE WALKS AND SUNSET TALES," *Big Spring SP at Big Spring, 915-263-4931*

JUNE 7, 14, 21, 28: "NATURE WALKS AND SUNSET TALES," *Big Spring SP at Big Spring, 915-263-4931*

JUNE 7: PIONEER DAY, *Abilene SP at Abilene, 915-572-3204*

JUNE 8, THROUGH SEPT. 2: CHUCK WAGON CHRONICLES, *Copper Breaks SP near Quanah, 817-839-4331*

JUNE 14: PETROGLYPH TOUR, *San Angelo SP at San Angelo, 915-949-4757*

JUNE 14: LIVING HISTORY, *Copper Breaks SP near Quanah, 817-839-4311*

PRAIRIES AND LAKES

JUNE: NATURE HIKES EACH SATURDAY, *River Legacy Parks at Arlington, 817-860-6752*

JUNE: HISTORICAL TOUR *each Saturday, Stephen F. Austin SHP at San Felipe, 409-885-3613*

JUNE 7: BEGINNING ASTRONOMY, *Cleburne SP near Cleburne, 817-645-4215*

JUNE 7: BUFFALO SOLDIERS, *Stephen F. Austin SHP at San Felipe, 409-885-3613*

JUNE 7: STATE FISHING DAY, *Cooper Lake SP/South Sulphur Unit near Sulphur Springs, 903-945-5256*

JUNE 9, 13: DAY CAMP, *Meridian SP near Meridian, 817-435-2536*

JUNE 14: STAGECOACH RIDES, *Fanihorp Inn SP at Anderson, 409-873-2633*

JUNE 14: AMERICAN MUSIC HERITAGE NIGHT, *Cleburne SP at Cleburne, 817-645-4215*

JUNE 14: "FORREST STUMP," *Cooper Lake SP/South Sulphur Unit near Sulphur Springs, 903-945-5256*

JUNE 14: BATHROOM BUGS, *Cooper Lake SP/South Sulphur Unit near Sulphur Springs, 903-945-5256*

JUNE 14, 28: WILD BIRD REHABILITATION, *Dinosaur Valley SP near Glen Rose, 817-897-4588*

JUNE 15: FATHER'S DAY, *Cooper Lake SP/South Sulphur Unit near Sulphur Springs, 903-945-5256*

JUNE 21: "BEETLES 'N' BUGS," *Cooper Lake SP/South Sulphur Unit near Sulphur Springs, 903-945-5256*

JUNE 21; "DINING AND DANCING UNDER THE STARS," *Meridian SP near Meridian, 817-435-2536*

PINEYWOODS

JUNE 7: "KIDS' FISH FLOP 1997," *Martin Dies, Jr., SP near Jasper, 409-384-5231*

JUNE 6, 20: NIGHT HIKE, *Village Creek SP at Lumberton, 409-755-7322*

JUNE 7, 14, 21, 28: GUIDED NATURE TRAIL HIKE, *Village Creek SP at Lumberton, 409-755-7322*

JUNE 14: JET BOAT & OUTBOARD RACES, *Atlanta SP near Atlanta, 903-796-6476*

JUNE 21: "FLOATING THE FORKS," *Martin Dies, Jr. SP near Jasper, 409-384-5231*

JUNE 28: WADING BIRD BOAT TOUR, *Martin Dies, Jr., SP near Jasper, 409-384-5231*

JUNE 28, 30, "FIRST AID THE PIONEER WAY" *herbal remedy program, Martin Dies, Jr., SP near Jasper, 409-384-5231*

GULF COAST

JUNE: NATURE ACTIVITIES *each Saturday and Sunday, Brazos Bend SP near Houston, 409-553-5124*

JUNE: BIRD AND WILDLIFE TOURS *each Thursday and Saturday, Fennessey Ranch near Refugio, 512-529-660*

JUNE 14, 22: MARINE ECOSYSTEMS TOUR, *Matagorda Island SP, 512-983-2215*

JUNE 15, 21: BEACHCOMBING TOUR, *Matagorda Island SP, 512-983-2215*

HILL COUNTRY

JUNE: OLD TUNNEL BAT EMERGENCE TOUR *each Thursday and Saturday, Old Tunnel WMA near Fredericksburg, 210-644-2478*

JUNE: NATIVE PLANT AND WILDFLOWER WALK, *call for dates, Kickapoo Cavern SP near Del*

Rio, SP, 210-563-2342

JUNE 5, 7, 19, 21, 26, 28: PRIMITIVE CAVE TOUR, *Kickapoo Cavern SP near Del Rio, 210-563-2342*

JUNE 5, 12, 19, 26: DEVIL'S WATERHOLE CANOE TOUR, *Inks Lake SP near Burnet, 512-793-2223*

JUNE 5, 19, 21, 25, 28: GREEN CAVE BAT FLIGHT OBSERVATION, *Kickapoo Cavern SP near Del Rio, 210-563-2342*

JUNE 7: A CELEBRATION IN LUCKENBACH, 210-997-6417

JUNE 7: DUTCH OVEN COOKING, *Honey Creek SNA near Bulverde, 210-438-2656,*

JUNE 7, 14: BAT FLIGHT OBSERVATION, *Devil's Sinkhole SNA near Brackettville, 210-563-2342*

JUNE 7, 14, 21, 28: ETHNOBOTANY AND PLANT IDENTIFICATION, *Honey Creek SNA near Bulverde, 210-438-2656*

JUNE 8: HORSEBACK OUTING, *Hill Country SNA near Bulverde, 210-796-3984*

JUNE 13-14: "TEXAS LAND TRUSTS: GRASSROOTS LAND CONSERVATION IN YOUR COMMUNITY," *National Wildflower Research Center in Austin, 512-389-4868*

JUNE 14: SIX-MILE HIKE, *Pedernales Falls SP near Johnson City, 210-868-7304*

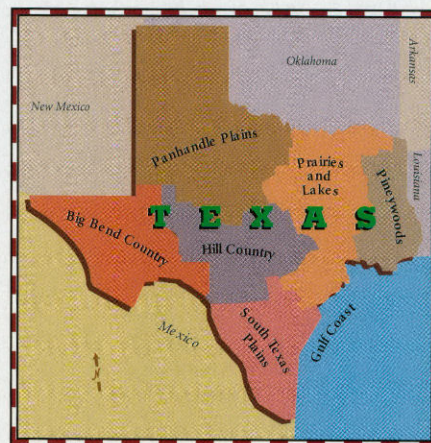
JUNE 20, 21: PEACH JAMBOREE, *Stonewall Chamber Grounds at Stonewall, 210-644-2735*

JUNE 28, 29: ANNUAL ANTIQUE MACHINERY EXHIBITION, *Lyndon B. Johnson SHP near Johnson City, 210-644-2735*

BIG BEND COUNTRY

JUNE 7, 21: BUS TOUR, *Big Bend Ranch SP, 512-389-8900*

SP STATE PARK
SHP STATE HISTORICAL PARK
SNA STATE NATURAL AREA
WMA WILDLIFE MANAGEMENT AREA



Texas Parks & Wildlife

Emmy Award-winning Series Watch for our companion television series, "Texas Parks & Wildlife," on your local PBS affiliate. All times p.m. unless otherwise noted. In stereo where available.

CITY/STATION	DAY/TIME
AMARILLO KACV, Ch. 2	Sunday 4:00
AUSTIN KLRU, Ch. 18	Monday 12:00 Saturday 8:00
COLLEGE STATION KAMU, Ch. 15	Thursday 7:00 Friday 11:00 a.m.
CORPUS CHRISTI KEDT, Ch. 16	Friday 11:30
EL PASO KCOS, Ch. 13	Sunday 6:00
HARLINGEN KMBH, Ch. 60 <i>Also serving McAllen, Mission</i>	Sunday 12:30
HOUSTON KUHT, Ch. 8 <i>Also serving Beaumont/Port Arthur, Galveston, Texas City, Victoria</i>	Monday 7:30

KILLEEN KNCT, Ch. 46 <i>Also serving Temple</i>	Sunday 4:00
LUBBOCK KTXN, Ch. 5	Saturday 7:00
ODESSA KOCV, Ch. 36 <i>Also serving Midland</i>	Saturday 7:30
SAN ANTONIO KLRN, Ch. 9 <i>Also serving Laredo</i>	Thursday 12:00 Saturday 11:00 a.m.
WACO KCTF, Ch. 34	Saturday 3:00

Programming schedules are subject to change, so check your local listings

Look for These Stories in the Coming Weeks

APRIL 27-MAY 4: Kayaking; cave creatures; an outdoor wild game cook-off.

MAY 4-11: A trip through time on the Rio Grande; a visit to a prairie dog town; quail hunting.

MAY 11-18: Biologists and farmers working together in West Texas to preserve water; how a leaf changes colors; South Texas wintertime "snow birds."

MAY 18-25: A rain forest in Houston; movie-making at the Texas State Railroad; how physically challenged people enjoy the outdoors.

MAY 25-JUNE 1: Remembering D-Day on the Battleship Texas; cleaning up the Brazos River; the annual migration of geese to Texas each fall.

R A D I O S C H E D U L E

Passport to Texas

Your Radio Guide to the Great Texas Outdoors. Join Joel Block weekdays for a 90-second journey into the Texas outdoors on "Passport to Texas." Kathleen Jenkins, Producer. Check this listing for a station near you.

ABILENE / KACU-FM 89.7 / 7:06 a.m. & 1:44 p.m. & 6:01 p.m.
 AMARILLO / KACV-FM 89.9 / 9:20 a.m.
 ATHENS-MALAKOFF / KCKL-FM 95.9 / 6:40 a.m.
 ATHENS-MALAKOFF / KLVQ-AM 1410 / 10:20 a.m.
 ATLANTA / KPYN-FM 100.1 / 4:30 p.m.
 AUSTIN / KUT-FM 90.5 / 1:53 p.m.; 12:58 p.m. (F)
 AUSTIN AMERICAN-STATESMAN'S Inside Line 512-416-5700 category 6287 (NATR)
 BEAUMONT / KLVI-AM 560 / 5:40 a.m.
 BIG SPRING / KBST-AM 1490 / 7:35 p.m.
 BONHAM / KFYN-AM 1420 / TBA
 BRADY / KNEL-AM 1490 / 7:20 a.m.
 BRADY / KNEL-FM 95.3 / 7:20 a.m.
 BRENHAM / KWHI-AM 1280 / 6:50 a.m.
 BRYAN / WTAW-AM 1150 / 5:45 p.m.
 CARTHAGE / KGAS-AM 1590 / 6:46 a.m.
 CARTHAGE / KGAS-FM 104.3 / 6:46 a.m.
 CENTER / KDET-AM 930 / 5:20 p.m.
 COLUMBUS / KULM-FM 98.3 / 7:20 a.m. & 5:20 p.m.
 COMANCHE / KCOM-AM 1550 / 6:30 a.m.
 COMMERCE / KETR-FM 88.5 / 10:15 a.m.
 CORPUS CHRISTI / KFTX-FM 97.5 / 5:30 a.m.
 CROCKETT / KIVY-AM 1290 / 5:15 p.m.
 CROCKETT / KIVY-FM 92.7 / 5:15 p.m.
 DIMMITT / KDHN-AM 1470 / 12:31 p.m.
 EAGLE PASS / KINL-FM 92.7 / 7:15 a.m.
 EASTLAND / KEAS-AM 1590 & FM 97.7 / 8:30 a.m.
 EL CAMPO / KULP-AM 1390 / 2:05 p.m.
 FAIRFIELD / KNES-FM 99.1 / 7:49 a.m.
 FR. STOCKTON / KFST-AM 860 / 12:50 p.m.
 FR. STOCKTON / KFTS-FM 94.3 / 12:50 p.m.
 FREEPORT / KBRZ-AM 1460 / 10:15 a.m. & 7:45 p.m.

GALVESTON / KGBC-AM 1540 / 1:45 p.m.
 HALLETTSVILLE / KHLT-AM 1520 / 8:15 a.m.
 HARLINGEN / KMBH-FM 88.9 / 4:58 p.m.
 HEREFORD / KPAN-AM 860 / 2:50 p.m.
 HEREFORD / KPAN-FM 106.3 / 2:50 p.m.
 HILLSBORO / KHBR-AM 1560 / 9:30 a.m.
 HOUSTON / KTRH-AM 740 / 10:40 a.m.
 HUNTSVILLE / KYLR-AM 1400 / 9:30 a.m. & 5:26 p.m.
 JACKSONVILLE / KEBE-AM 1400 / 7:25 a.m.
 KERRVILLE / KRNH-FM 95.1 / 5:31 a.m. & 11:57 a.m. & 9:57 p.m.
 KERRVILLE / KITE-FM 92.3 / 7:32 a.m. & 12:32 p.m. & 5:32 p.m. & 9:32 p.m.
 LA GRANGE / KVLG-AM 1570 / 5:45 p.m.
 LA GRANGE / KBUK-FM 104.9 / 5:45 p.m.
 LAMPASAS / KCYL-AM 1450 / 7:45 a.m.
 LIBERTY / KSHN-FM 99.9 / 7:13 a.m. & 2:50 p.m.
 LONGVIEW / KBNB-AM 1060 / 10 a.m. & 1 p.m.
 MARSHALL / KCUL-AM 1410 / 7:15 a.m.
 MARSHALL / KCUL-FM 92.3 / 7:15 a.m.
 MCALLEN / KHID-FM 88.1 / 4:58 p.m.
 MIDLAND / KCRS-AM 550 / 6:43 a.m. & 1:43 p.m. & 6:43 p.m.
 MINEOLA / KMOO-FM 96.7 / 5:20 p.m.
 MONAHANS / KLBO-AM 1330 / 8:50 a.m.
 NACOGDOCHES / KSAU-FM 90.1 / 3:00 p.m.
 OZONA / KYXX-FM 94.3 / 12:43 p.m.
 PECOS / KIUN-AM 1400 / 10:30 a.m.
 ROCKDALE / KRXT-FM 98.5 / 5:04 a.m.
 SAN ANGELO / KUTX-FM 90.1 / 1:58 p.m.; 12:58 p.m. (F)
 SONORA / KHOS-FM 92.1 / 12:43 p.m.
 SULPHUR SPRINGS / KSST-AM 1230 / 11:15 a.m.
 TEMPLE / KTEM-AM 1400 / 6:50 a.m.

TEXARKANA / KCMC-AM 740 / 12:15 p.m.
 UVALDE / KVOU-AM 1400 / 5:33 a.m.
 UVALDE / KYUF-FM 105 / 5:33 a.m.
 WACO / KBCT-FM 94.5 / 6:20 a.m.
 WEATHERFORD / KZEE-AM 1220 / 6:30 a.m. & 8:10 a.m. & 5:15 p.m.
 WICHITA FALLS / KWFS-AM 1290 / 6:15 a.m. & 7:45 a.m.
 YOAKUM / KYKM-FM 92.5 / 8:15 a.m.

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Why pay for cellular phone service if you only want it for emergency use?

The SOS Phone offers a 24-hour call center to connect you with your emergency roadside service, 911 service or family members in the event of an emergency.



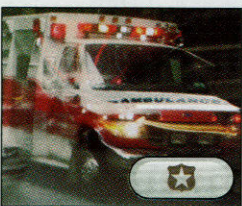
Press the Tow button and your emergency road service will be dispatched to tow your automobile.

To tell you the truth, I am not interested in owning a cellular phone...except for use in an emergency. What would I do if my car broke down on the interstate or ran out of gas on some deserted back road? How would I get help? Like most women, I have the safety of my children to consider.

Last month, I inquired about cellular phone service. I was surprised to find out how expensive it was, even for the most basic calling plans! I just couldn't justify spending that much for something I may never need. Then a good friend told about a product she thought would solve my problem. It's the SOS Phone—a cellular phone service designed exclusively for emergency use!

What does it do? With the touch of a button, the SOS Phone will connect me to a roadside emergency service, a 911 service or a trained SOS operator, 24 hours a day. If I ever need help, I know it's just a phone call away.

Emergency assistance. By pressing the "tow" button, I'll be connected with my emergency roadside service provider. Or, if I don't have one, the SOS operator can recommend one to me and dispatch them immediately.



The 911 button will connect you to 911 police or other emergency services, and the call is absolutely free!

The "911" button will connect me to the 911 emergency service in my area—best of all, the call is absolutely free!

Personalized service. Each SOS Phone has a serial number that is recorded at the Call Center, so each time I use my phone, the operators will know that it is me calling, and will greet me by name. Plus, my SOS Emergency Record will appear instantly on the computer screen and the operator will connect me with the person or emergency service I need.

Not just for emergencies. If I just want to call home to tell

my husband that the kids and I are running late, I can! By pressing the "call" button, I'll reach an operator. When I ask the operator to call home, I'll be connected automatically. And because the Call Center has my list of 10 most-used phone numbers, I don't even have to recite the number!

Great for teens. The SOS Phone is also a great thing to have around for my stepdaughter. I can rest assured that she'll always be able to get in touch with us (or an emergency service) if she needs to.

Cost control. Unlike ordinary cellular phone plans, the SOS Phone doesn't have any minimum usage requirements or any other stipulations that could change the price I expect to pay each month.

Plus, without my password, the only non-emergency calls my stepdaughter can make are to our 10 pre-set phone numbers.

I can even specify a maximum credit limit per month to eliminate the surprise of outrageous monthly bills!

Try it yourself. I can't

begin to tell you how much confidence the SOS Phone has given me and my family. Why not try it yourself? If you don't enjoy its convenience and security, return it within 90 days for a "No Questions Asked" refund. It also comes with a three-year manufacturer's limited repair or replacement warranty.

SOS Phone \$99 \$8 S&H
12-month service contract required for this price. Requires a one-time non-refundable activation fee of \$25 and a monthly charge of \$9.95. Calls made on the Call and Tow buttons are billed to your credit card at \$1.45 per minute. (That rate includes all local, long-distance, cellular and roaming fees.) For outgoing calls only.
 Please mention promotional code 2088-10863.

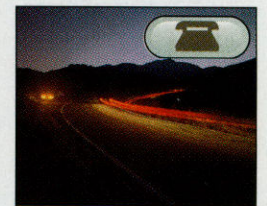
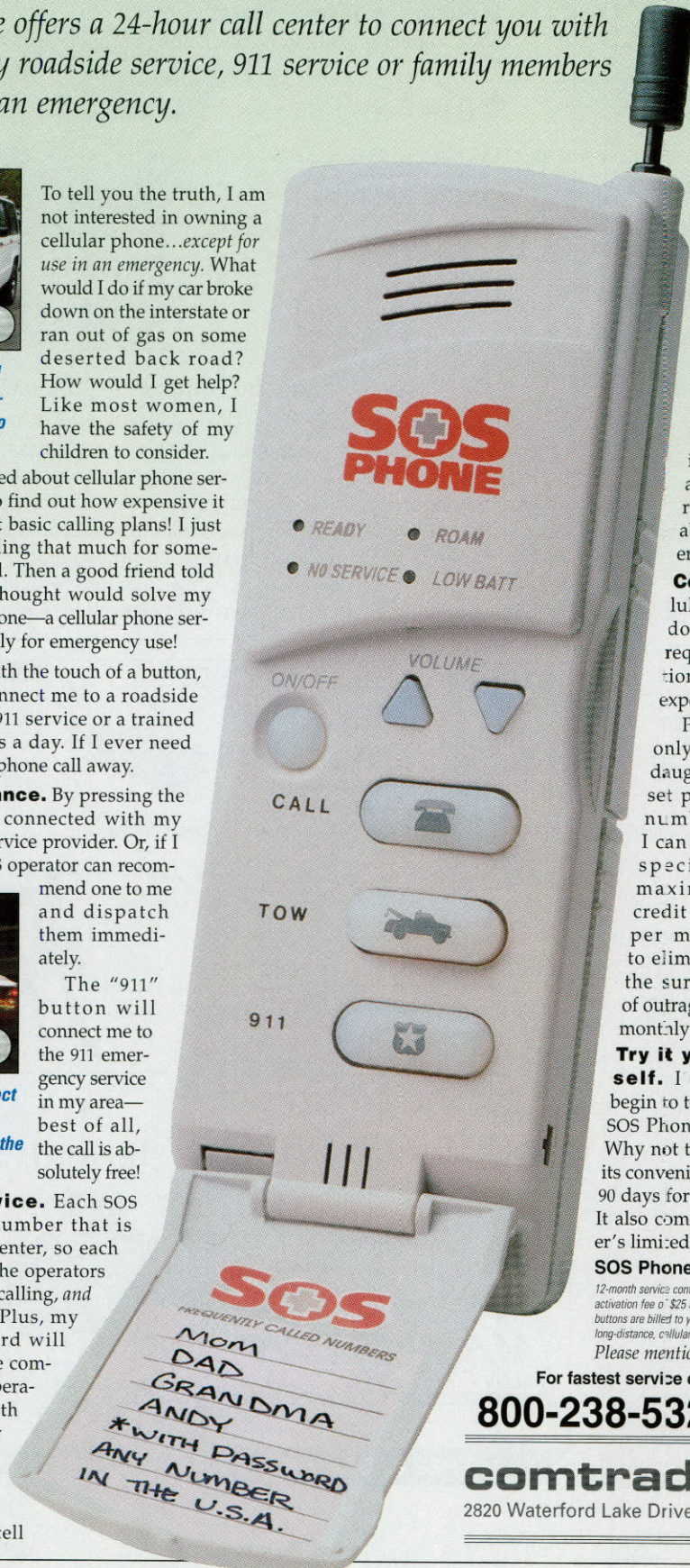
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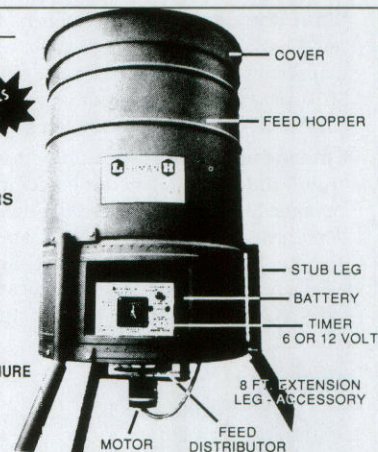
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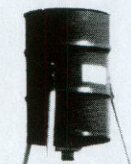
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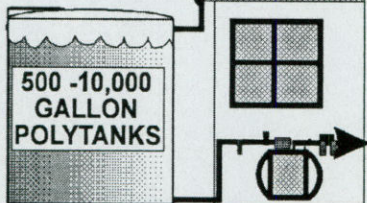
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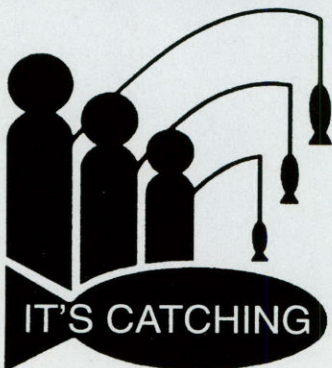
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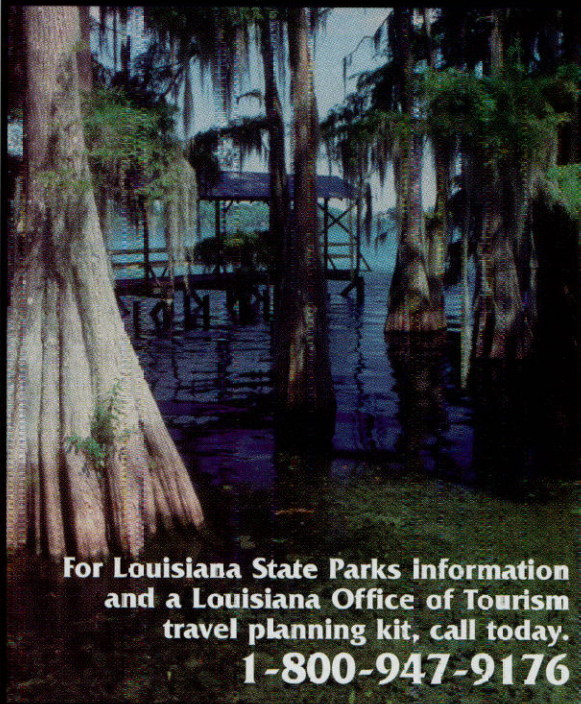
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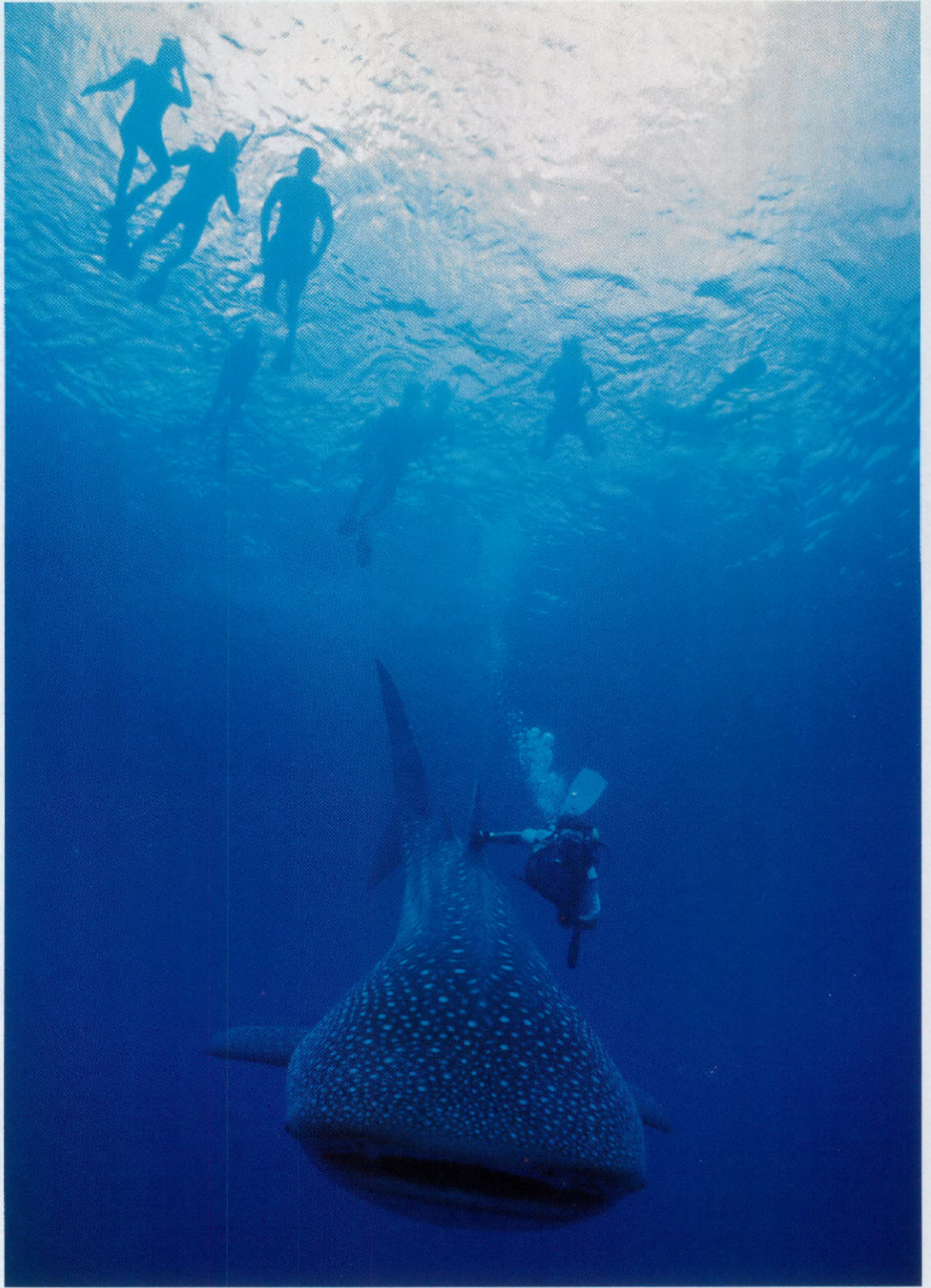
Baker 1st Mate's Fish Flipper lets you twist and flip fish off without getting bit. Great for toothy Texas game fish.

Won't rust! Made of stainless steel. 8 1/2" long with a man-size handle.

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This and other Baker fishing accessories available wherever tackle is sold. TPW-5

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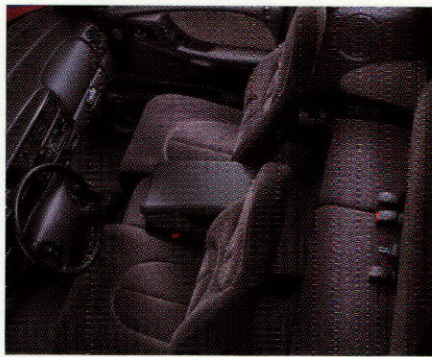
This spectacular photo of divers and a gentle whale shark is the kind of shot that could win a prize in the Discover Texas Artificial Reefs photo contest. Entry deadline for photos has been extended to September 1, 1997, and the total number of entries that may be submitted has been increased from three to 45. Winners will be announced and the winning entries displayed at Wildlife Expo '97 at Texas Parks and Wildlife Department headquarters Oct. 3-5. The grand prize is a vacation package which includes \$2,000 cash and a three-day dive trip to South Padre Island. Call 512-912-7005, leave your name, address and telephone number to receive a copy of the contest rules and prizes.



A wide stance does more than just make the all-new Dakota look athletic. It increases stability.



We code many of the new Dakota's plastic parts for the day they can be recycled. Because, like you, we think the world of the environment.



You'll find all sorts of happy little surprises in this roomiest-in-class interior. For example, hidden beneath the Club Cab rear seat are storage bins.

We gave the all-new Dodge Dakota quick-ratio, variable-assist power steering, for speedy response and a solid feel.

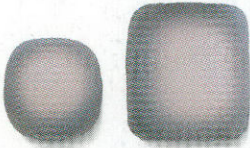


The front outboard shoulder belts feature five different height adjustments. It's a little convenience that turns into a very big convenience on long trips.

You can opt for a premium Infinity® stereo system with cassette and CD player in the new Dodge Dakota. Eight speakers in six locations kick out some real concert-quality sound.



The recline of civilization.



The new Dakota is the first truck in its class with standard dual airbags.* No surprise there.

A dedication to safety is something you've come to expect from Dodge.

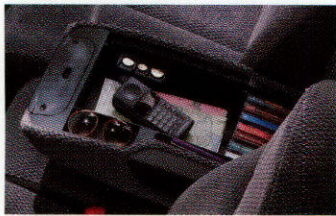
We cater to your individual needs ... by offering a driver seat that does, too. Note, for instance, the adjustable lumbar support.



The new Dakota Club Cab's seats can be reclined 27°. So kick back.



You get a genuine forward-facing rear seat in Dakota Club Cab, with enough hip room to seat three across. Your passengers will be beside themselves with comfort.



CDs, cell phones and other everyday necessities can be conveniently stowed away in the new Dakota's optional mini business console.

For more surprising facts, call 1-800-4-A-DODGE, or visit our Web site at <http://www.4adodge.com>



*Always wear your seat belt for a fully effective airbag. Rearward-facing child seats cannot be used in standard cab models.



Club Cab Sport 4x4

The New Dodge Dakota
It's full of surprises.



