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Contents

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Page 20

	2
People who enjoy looking for champion trees know that Texas is prize big tre territory.	ee
Trophy Bass Depot by Jim Cox Linker bass make a stop at the Tyler State Fish Hatchery each spring.	0
Big City Wardens by A. Gayland Moore Came wardens traditionally are associated with the rural outdoors, but cities need their services as well.	2 ed
Bonus Wingshooting by Jim Cox and Bill McLennan The winter dove season provides some pleasant January days.	0
Nature's Camo Animals can teach us a thing or two about dressing in camouflage.	4
Ike's Birthplace by Sherrie S. McLeRoy The 34th president of the United States was born in a modest frame house in Deniso	4 on.
Outdoor Roundup by Jim Cox News briefs compiled by the department's news service.	8
Pelicans' Progress by Christie Barnes Two species of pelicans grace the Texas coast, but white pelicans have fared bett than the brown species.	(O tér
Letters 4	8

Covers

Front and Back: With acrobatic grace, a flock of Canada geese takes to the air during a winter storm in North Texas Photo by Wyman P. Meinzer. Inside Front: A white pelican lands in the shallow bay water to forage for its afternoon meal. White pelicans have fared better than brown pelicans, which also are found along the Texas coast. (See story on page 40.) Photo by Grady Allen.

Stalking the Champion Trees

Article by Mike Blakely, Photos by Leroy Williamson

he rushing waters of the Frio River swept the axles of my pickup as I drove across to the Burditt Ranch. W.J. Burditt saw me coming and parked his tractor in the shade. He didn't seem thrilled to see me, but he was courteous and I could tell he had resigned himself to tolerating another tree ogler.

The largest known tree in Texas, Burditt's baldcypress, spreads its boughs over the ranch's rocky soils. As Burditt eased into my truck with an economy of motion developed through more than half a century of ranching, he pointed the way to the state champion baldcypress.

A dirt road led us back to the Frio, where we turned upstream and began passing dozens of baldcypress trees lining the flanks of the river. A cement picnic table stood beside a particularly massive specimen.

"That's a pretty big one right there, isn't it?" I asked.

"It's a fair-sized one," replied Burditt. "A pretty good sprout."

We passed a fallen colossus that had stretched its woody carcass completely across the river to form a natural dam. Above it the Frio was calm, and along that stretch stood the largest tree in Texas. It was just six paces from the crystalline waters the day I visited, but the mud stains on its bark suggested it had recently stood in the flow of floodwater.

There are still some state champs to be found.

W. J. Burditt stands beside the state champion baldcypress on his ranch. This is the largest known tree in Texas.



hen I stopped the truck, Burditt slid out and hunkered down on his heels in the sprawling shadow of the giant. "Did you know that when I was 10 or 11 years old, I had little enough sense to climb that tree?" he asked, as if I might have heard the story. Burditt had shinnied up a drooping limb, he recalled, to reach the spot where the trunk forked into huge branches.

He pointed out a minor limb on the ground, riven by a recent lightning strike. That branch alone had the dimensions of a respectable tree, as I could barely reach around it.

The champion baldcypress stands 110 feet tall, its branches spreading to 110 feet at the widest point. The trunk measures 33 feet in circumference. Five adults could not reach hand-inhand around it. I knew all that before seeing the tree, but the statistics hadn't prepared me for the unfathomable volume of timber towering over me.

The state champion live oak at Goose Island State Park, north of Rockport, has a greater trunk circumference than the champion baldcypress. At least five Texas trees have average crown spreads equal to or greater than Burditt's tree. Some 20 Texas specimens equal or exceed the champion baldcypress in height. But according to the scoring adopted by the American Forestry Association and the Texas Forest Service which sums circumference, height and spread, this champion baldcypress far outscores its nearest competitors in the state.

W.J. Burditt's roots sink into the Frio Valley along with those of his great tree. He represents the traditional class of big tree hunters in Texas—landowners interested in the natural resources of their property. In Burditt's case, a civic organization in the town of Leakey, one mile south of his ranch, sponsored a drive to find big trees in 1970. The rancher asked that his tree be measured and thus he became recognized as the locator of not only the largest baldcypress, but the largest tree of any specimen in the state.

Most of the state's champion trees were nominated for their honors by landowners such as Burditt. However, a newer breed of big tree hunters is represented by people across the nation who search public and private lands looking for the largest trees of native or naturalized species. To these people it's a hobby fostered by love of nature and the thrill of discovering unheralded Goliaths.

Texas is prize big tree territory, and if the big tree hunting craze ever catches on in a big way in Texas, more champions are bound to surface. The state already has 77 national champion trees. Only Florida can boast more, because of the tropical species unique to that state.

So far, only a few serious big-tree hunters stalk Texas forests. John Haislett is one of them, but for him the hobby is an extension of his career. Until August 1987, Haislett was assistant director of the Texas Forest Service (TFS) and the man responsible for starting the Registry of Champion Trees in Texas. He has since retired to work on a field guide designed to help tree lovers identify Texas species. It will be available through the TFS.

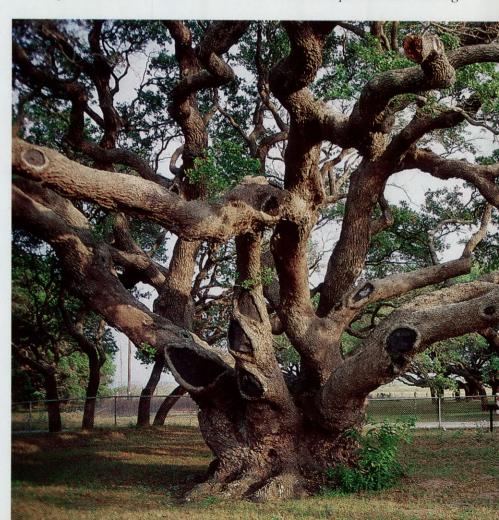
"In 1960 we had only two national champion trees," said Haislett. "I took over editorship of *Texas Forest News*, and in some of the back issues, they had spotlighted big trees in Texas. I started following up on these trees to see if any were still alive. There were a

few of them still living so I started making up a list and it's just grown over the years since then," he said.

The list Haislett originated, the "Registry of Champion Big Trees in Texas," now includes state champion trees of 196 species, many of which he found himself while traveling Texas to measure and verify prospective champs nominated by others. The day he crossed the Frio to verify the baldcypress, for example, his trained eye happened to spot a large Carolina basswood jutting from the banks of a gully near the dirt road leading to Burditt's house. His Texas list didn't contain a state champion Carolina basswood at that time, so he measured the specimen and found it to be a national champion as well as an automatic state champ.

The American Forestry Association (AFA) sent Burditt a plaque to put on the basswood, but according to the owner, "the woodpeckers ate it up." Measuring nine feet around and more than 90 feet tall, this specimen deserves its AFA honors even though it lacks the champion baldcypress' potential to awe.

The AFA is responsible for creating

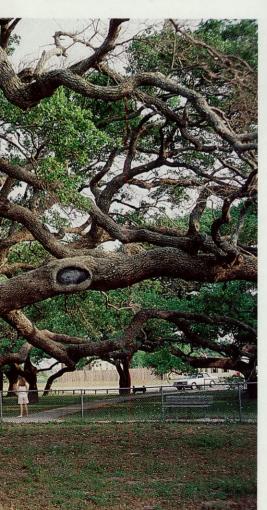


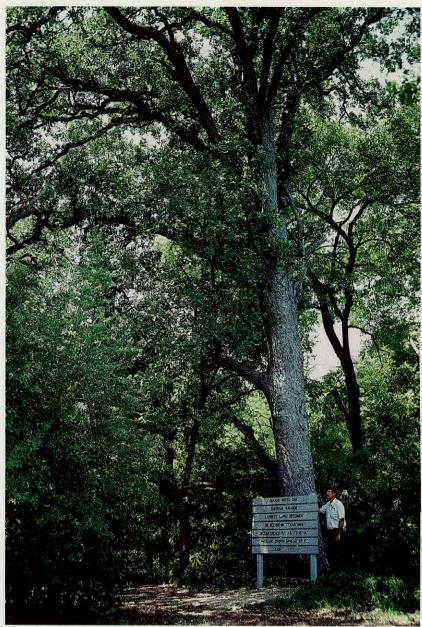
the sport of big tree hunting. In 1940, the association's magazine, *American Forests*, appealed to the public to find the largest specimens of 100 favorite species. Since then the National Register of Big Trees, published every four years by *American Forests*, has grown to include nearly 700 tree species.

A Texan whose name appears as nominator or co-nominator for nine champions in the National Register of Big Trees is Edward C. "Ned" Fritz of Dallas. At 71, he is perhaps the foremost big tree hunter in the state. An attorney who volunteers much of his time to environmental causes, he considers his avocation of locating big trees a part of his role as environmental activist.

"It's a hobby that does some direct good in several ways," said Fritz. "The main way is that it alerts people to the values and beauties of certain areas. It increases people's love and respect for trees so they will want to seek the best environmental methods for saving native open spaces."

Fritz also said residential areas offer excellent training grounds for tree hunting enthusiasts. In fact, many state and national champion trees are lo-



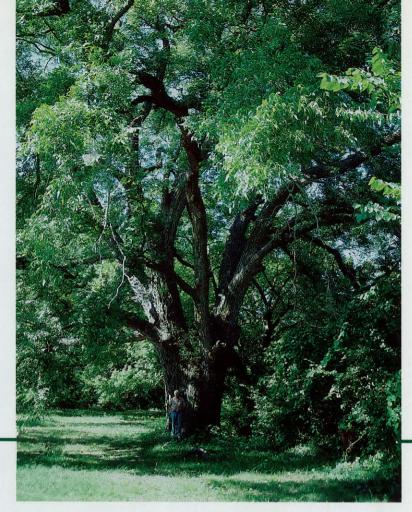


cated in neighborhoods. "But then," he said, "you ought to graduate on out into seeing them in their natural communities."

To become as successful at tree hunting as Ned Fritz, participants not only have to hike mile after mile of timbered terrain and measure hundreds of trees, they also have to have a knowledge of tree species. Fritz holds

Goose Island State Park near Rockport contains the state champion live oak (left). The state champion Durand white oak (above) is in Waco. the distinction of having discovered one of the smallest of the national champions—an American snewbell in Angelina County. He had to know his stuff to recognize a tree of only 13 feet in height and eight inches in circumference as a potential national champion.

Identifying species of trees remains one of the major challenges for novice tree hunters. Most bookstores stock several field guides on trees, but the distinguishing factors between some species are obscure and require experience. Common names add more confusion. In the Texas Hill Country, for example, the Ashe juniper is variously known as cedar, mountain cedar and Mexican juniper. For this reason,



big tree hunters must submit not only the common names of their prospective champions, but their scientific names as well.

Fritz said the National Forests in East Texas offer some of the best big tree hunting in the state, particularly in the wilderness areas located inside the National Forests. His book, "Realms of Beauty," published by the University of Texas Press in 1986, describes these areas and makes a plea for the preservation of their plant communities.

In "Realms of Beauty," Fritz included descriptions and photographs of the national champion black hick-

Located near Weatherford, the state champion pecan tree has held the record since 1967. Downtown New Braunfels is the setting for the state and national champion mescalbean (opposite page).

How to Measure a Big Tree

Champion trees are judged by an index scoring system combining the tree's height, trunk circumference and crown spread.

The trunk circumference is the easiest measurement and. since it contributes inches to the index instead of feet it usually adds most to the total score. Measure the trunk at 41/2 feet above the ground Don't try to make the tape measure conform to all the contours of the trunk, just pull it tight around the trunk and record the measurement in inches. If a limb happens to be sticking out at 41/2 feet, the trunk is measured at the point below the limb where the circumference is smallest.

The next measurement is average crown spread. First, determine where the drip line falls

all the way around the tree. By measuring along an imaginary line that runs straight through the trunk, find the widest crown spread and the narrowest. Average the two and round off to the nearest foot. Now divide by four because only a quarter of the average crown spread measured in feet is contributed to the index score.

Height is the third measurement and is simpler than most people realize. Big tree hunters don't need to use specialized equipment such as hypsometers, clinometers, transits or hand levels to find the height of a tree. In fact, a pencil or a straight stick will suffice.

John Haislett, retired assistant director of the Texas Forest Service, says he uses the "old Boy

Scout method." He holds a pencil at arm's length and locks his elbow. Then he backs away from the tree until he can sight over the point of the pencil and line it up with the uppermost twig of the tree while at the same time. without moving his arm, he can sight under the eraser and line it up with the base of the trunk. In other words, he backs away from the tree until the pencil appears exactly as tall as the tree. Then he simply turns his pencil sideways, continuing to line the eraser up with the base of the trunk. The place on the ground where the point of the pencil "falls" will be exactly as far away from the trunk as the uppermost branch, so he visually marks that place on the ground or has a helper stand there, and measures the distance.

The American Forestry Association describes a similar method involving a straight stick. Hold it at arm's length. The length of the stick extending above your fist should be equal

ory, littlehip hawthorn and longleaf pine, all of which he found with fellow naturalists. The book also mentions state champs such as the flatwoods plum, Florida sugar maple and eastern hophornbeam.

One of his most exciting first Texas finds was the "Godmother," a sky-scraping, state champion cherrybark oak. Although not a national champion for her species, the Godmother is the tallest tree east of Idaho. Fritz wrote that TFS representatives measured and remeasured the oak's height for almost an hour in disbelief. At 142 feet, the Godmother is taller than any reigning champion in the Texas big tree registry.

West Texas also holds potential for state and national champion trees. A former park ranger, James E. Liles, found no fewer than eight national champs during his tenure at Big Bend National Park. "I'm sure there are trees in the area from the Guadalupe Mountains down to Big Bend that definitely would be national champions," said John Haislett. He suggested the beaked yucca and the Trecul yucca. Though not always thought of as trees, large yuccas meet all the specifications and the beaked and Trecul species are found only in Texas. Furthermore, they are not yet listed in state or national registries, so the first nomination would become an automatic champ.

Other Texas-only trees not listed are the Texas paloverde and three East Texas hawthorn species—Gregg, Texas and Tracy. These are automatic state and national champs for the first tree hunter to find, measure and nominate a specimen.

Haislett said diversity in the Texas climate gives the state a variety of tree species. Many trees of eastern North America are found in East Texas while species indigenous to the western deserts and mountains extend their ranges into West Texas. South Texas harbors semitropical entries. The long annual growing season helps some trees reach gigantic proportions.

Once a tree hunter locates a prospective champion, it must be properly measured. The TFS and the AFA have brochures describing the process in detail, but basically there are three measurements to be made and the only required piece of equipment is a tape measure.

When the AFA started big tree hunting almost 50 years ago, it seemingly made the measuring procedure unnecessarily complicated, but big tree hunters have learned to deal with it. (See sidebar for details.) The circumference of the tree trunk is measured in inches. The height is measured in feet. The average crown spread is determined to the nearest foot and di-

to the distance from your fist to your eye. Back away from the tree until you can sight the top twig over the top of the stick and the base of the trunk over your fist without moving your arm. Again, you're making the part of the stick above your fist appear as tall as the tree. Now, the distance between the spot where you stand and the base of the trunk is equal to the height of the tree.

These pencil or stick measurements, rounded off to the nearest foot, are sufficient and quite accurate. It helps to know both methods. Sometimes one works better than another, depending on the density of brush around the tree, the slope of the ground or other factors.

Now, add the number of inches of circumference, a quarter of the number of feet in the average crown spread, and the number of feet in height. By mixing these inches and feet you come up with the total index score, the standard by which champion trees are compared.

To nominate a tree for state or national champion, you must send all three measurements and the total index score to the appropriate organization, the Texas Forest Service or the American Forestry Association. They also require the correct scientific name of the tree, specific location, date measured and name of measurer, name and address of the tree owner, a photograph and date taken, description of the tree's physical condition, and mailing address of the nominator.

For more information, contact: The National Registry of Big Trees, American Forestry Association, P.O. Box 2000, Washington, D.C. 20036. Or call 202-667-3300.

For information on big trees in Texas, write to: Registry of Champion Big Trees in Texas, Texas Forest Service, P.O. Box 310, Lufkin, Texas 75902-0310. Or call 409-845-2641.

by Mike Blakely





vided by four. The numerical value of inches and feet, summed, make up the total index score which is the standard for judging big trees.

With these measurements, the nominator must send a photo of the tree, its scientific name, the date measured and other data to the TFS or the AFA. If all this sounds like too much work for you, but you still like to enjoy big trees, you can join the ranks of people who simply like to see the big trees already found, measured and submitted by others. The TFS includes locations of all the trees in the "Registry of Big Trees in Texas" and directions are available for the difficult to find entries.

Big tree sight-seeing is familiar to anybody who owns a champion tree, especially in easy-access residential areas. Tree tourists from all over the country seek the champs just to get a peek at them. Even W.J. Burditt, on his somewhat remote ranch across the Frio, told me that folks have come from as far away as California to see the biggest tree in Texas. He said the champion baldcypress wound up marked as an attraction on some road map, and since then his ranch hasn't been nearly as serene.

"We'll be eating dinner," he said, leaning against his gargantuan growth of baldcypress, "and we'll hear a racket and look down here and there'll be people all around this tree, just taking pictures, ganged up around it like it's the eighth wonder of the world!"

Texas' state and national champion big trees come in all sizes and shapes, from the diminutive American snowbell to the lofty cherrybark oak. They stand in 69 different counties from the lower Rio Grande Valley to the upper Panhandle and from the Sabine to Sierra Blanca. Others wait to be found on public and private land if you have the energy to hunt them. If not, you can see the ones already recognized, such as the champion baldcypress. It's an eye full, if not the eighth wonder. And as far as Texas trees are concerned, it is arguably the most wonderful of all.

D. W. Hicks is the owner of the state champion eastern cottonwood (left) located in Bandera.

Texas' First Arbor Day

by Sam Logan

rban dwellers who want to plant and preserve trees in their neighborhoods and parks often find themselves fighting bull-dozers and asphalt parking lots. But urban conservationists of 100 years ago faced different problems. Consider the situation in Austin.

Dr. Leslie Waggener, chairman of the faculty of the University of Texas, addressed conferees to Texas' first Arbor Day and Forestry Convention in 1889. "In regard to municipal regulation, allow me . . . to suggest a step which should be about the first you take," said Waggener. "As I understand, one of the objects of your association is to secure the planting of trees along the streets of our town. . . . Now in most of our towns and in some of our smaller cities this is absolutely impossible, so long as the 'town cow' has the liberty she now enjoys. . . . I am sorry to say that Austin . . . is absolutely at the mercy of this most favored quadruped.... She is allowed to take advantage of any open gate and browse at will. . . . "

While this story sounds quaint today, this was a valid concern in 1889just 53 years after the Battle of San Jacinto—when Texans were beginning to appreciate the beauty and other values of trees.

The Arbor Day movement in the Lone Star State began in the winter of 1888 when residents of various cities became interested in the subject. This interest was attributed to a rousing speech made by Governor L. S. Ross at the Abilene fair in October 1888. Under the leadership of banker W. Goodrich Jones (later to be designated the "father of forestry in Texas") the City of Temple took the initiative and sent a signed petition to the 21st Texas Legislature, then in session, asking for an Arbor Day on February 22 of each year. Through the efforts of Senator George Tyler of Belton and others, the following bill became law: "An act setting apart the 22nd day of February of each year as 'Arbor Day,' and to encourage the planting of trees in this state. . . .

Since the bill was passed so close to the time of the new holiday, the legislature suspended the rules and enacted its passage on February 22, 1889.

While this was the first Arbor Day for Texas, it was not the first such occasion to be celebrated in the world, or in the nation. More than 1,500 years ago in a little town in Switzerland, people decided that they must have a grove of oak trees on their common. A work day was set and the men, women and children went into the woods, dug up little trees, carried them to the common and planted them under the

direction of a gardener. According to the story, "everyone did his duty . . . the older folks held a festival and every boy and girl received a wheaten roll as a reward." This became the first recorded Arbor Day observed among the people of the Alps.

Arbor Day as we know it was first observed in Nebraska, a state in which only three percent of the land area originally was covered by trees. On January 4, 1872, J. Sterling Morton, a member of the State Board of Agriculture, and later governor, introduced and obtained the first Arbor Day resolution in America.

Back in Texas, the pecan tree was officially designated the state tree by an act of the legislature in 1919. Sentiment which led to adoption of the pecan tree probably grew out of a request by Governor James S. Hogg, who said: "I want no monument of stone or marble, but plant at my head a pecan tree and at my feet an old-fashioned walnut. And when these trees shall bear, let the pecans and the walnuts be given out among the plain people of Texas so they may plant them and make Texas a land of trees."

The original Arbor Day law expired in 1925. During the succeeding 24 years, the custom of observing Arbor Day on George Washington's birthday was continued by proclamation of the governor.

In 1949, the Texas State Legislature adopted the present resolution which designates the third Friday in January as Arbor Day.

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Trophy Bass Depot

Tyler State Fish Hatchery

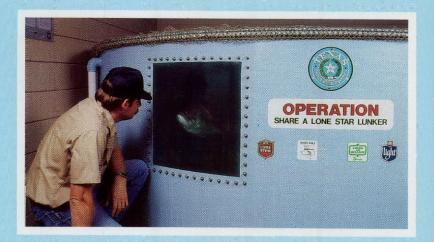
Rantasy and science collide each spring at the Tyler State Fish Hatchery.

Thousands of fishermen and wouldbe fishermen gravitate to the modest cluster of buildings on Tyler's outskirts to let their imaginations run free. Their fantasies are fueled by the world's largest collection of live, trophy-sized largemouth bass.

A dozen or more huge bass, ranging in weight from 13 to 17 pounds, swim insouciantly in glass-sided aquaria, oblivious to the stares of onlookers who probably never saw such large bass, let alone caught one.

Despite the circus atmosphere, the monster bass are maintained for more than their gee-whiz effect. As star attractions in the Parks and Wildlife Department's "Operation Share A Lone Star Lunker" program, these great fish perform a dual role of helping promote the catch and release concept while producing offspring that biologists hope will inherit the ability to grow faster than ordinary Florida largemouth broodfish.

The lunker fish are lent to the Parks



and Wildlife Department by their proud captors. For their cooperation, the donors are given fiberglass replicas of their fish. In most cases, the fish is returned to its home lake after the spawning season is over.

As an added incentive, the fisherman lending the largest fish is named "Lone Star Angler of the Year." The honoree is given considerable pub-

David Campbell and a 16-pound largemouth bass contemplate each other at the Tyler Fish Hatchery. Campbell is hatchery manager and the fish is the 1988 Lone Star Lunker of the Year, caught from Gibbons Creek Reservoir by Troy Johnson in January.



licity for his catch, and his or her name is inscribed on a plaque at TPWD headquarters in Austin.

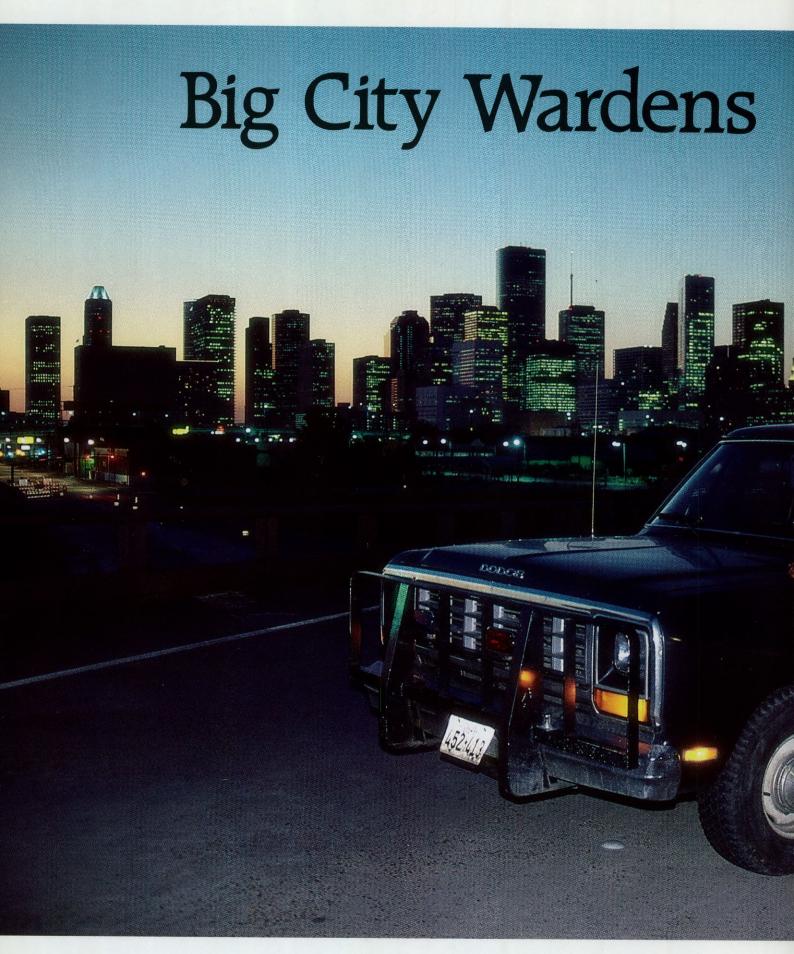
The 1987 angler of the year was Mark Stevenson, whose 17-pour.d, 10.72-ounce bass is still reigning as the state record largemouth. Stevenson a pro fishing guide, caught the fish frcm Lake Fork. No less impressive is the 1988 Angler of the Year catch, a 16-pound, two-ounce lunker taken frcm the waters of Gibbons Creek Reservoir near Bryan by Troy Johnson, a University of Texas student from Houston.

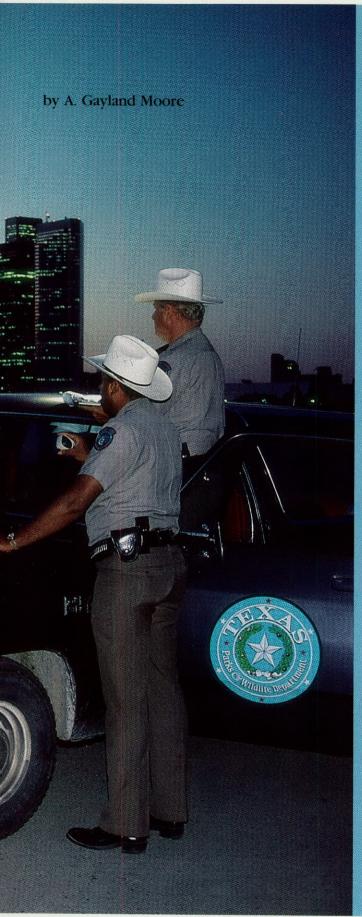
Johnson's fish not only rivaled Stevenson's fish in size, it outperformed all other LSL fish by spawning a re-

markable five times, producing more than 90,000 fingerlings. As with the offspring produced by other lunker fish, some of the fingerlings were retained for observation and future brood duty and the remainder stocked in public waters.

The lunker program is not just a Parks and Wildlife project. It receives support in time and money from the Lone Star Lunker Foundation. Participating as corporate sponsors are Lone Star Brewery, Skeeter Boat Co., Jungle Labs, Inc., and Honey Hole Magazine. Fiberglass fish mounts are provided by the Texas Taxidermy Association.

These trophy bass mounts in the Lone Star Hall of Fins in San Antonio are impressive, not only because each represents a Texas-caught largemouth bass weighing more than 13 pounds but also because several of the original fish were released alive in their lakes of origin. "Operation Share a Lone Star Lunker' provides big bass for batchery and research use while promoting the catch-andrelease concept.





ost people associate game wardens with the rural outdoors. And for those who live in small towns and rural counties, knowing their local game wardens personally is commonplace. In fact, the local game warden enjoys celebrity status in several small Texas towns.

This scenario, however, is different in and around the big cities. With the exception of hunters and fishermen, most residents in Dallas, Fort Worth, San Antonio and Austin aren't even sure what game wardens do, much less their names.

Proof of this statement is evident at every outdoor show, exhibit and program that Texas Parks and Wildlife Department game wardens attend. Predictable questions range from, "Why do you wear a gun when most park rangers don't," to "Why do we need game wardens in Tarrant Courty?"

"You can definitely say that urban game wardens suffer an identity crisis with much of the general public," said Fort Worth game warden Larry Osborne. "And when people do realize who we are and what our responsibilities include, they usually are surprised."

A game warden's assigned location has a lot to do with the scope of his or her daily and seasonal responsibilities. And nowhere is this more evident than in the daily routines of game wardens assigned to large metropolitan areas. In Harzis County, as in most Gulf Coast counties the game warden's priorities include the checking of illegal shrimpers, crabbers and saltwater fishermen, as well as the illegal sale and distribution of all saltwater fish and shellfish at area restaurants, grocery stores and seafood markets.

Houston-area game wardens (left) have a variety of responsibilities such as answering alligator nuisance calls; serving arrest warrants; investigating tips on iliegal bunting and fishing practices; attending high school career days; and assisting in search and rescue operations during tornadoes, floods and burricanes.



Houston-area game wardens (Harris, Chambers and Galveston Counties) also must find time to answer alligator nuisance calls; give hunter safety programs; attend high school career days; serve arrest warrants; investigate tips on possible deer poaching and other illegal hunting practices; enforce water safety on several freshwater lakes and throughout the approximately 300 miles of bay shoreline; and be ready to assist in search and rescue operations during tornadoes, floods and hurricanes.

Although Dallas-Fort Worth game wardens seldom deal with alligator nuisance calls, illegal shrimpers or hurricanes, the majority of their daily routine is much the same. Most of the state's hunting seasons require a game warden's attention in Dallas and Tarrant Counties, and with thousands of people filling up area lakes and parks on spring and summer weekends, enforcing water safety is an ongoing necessity in the DFW metroplex.

Occasionally, Dallas-Fort Worth game wardens assist the U.S. Fish and Wildlife Service in the investigation and processing of cases involving the illegal importation or exportation of endangered and/or threatened wildlife species (usually in the form of clothing, furniture or rugs), which have been confiscated at the U.S. Fish and Wildlife Service Customs Port at DFW International Airport.

"It's a real education to work in a regional office in or near a large metropolitan area," said Ernest DeLaRosa, a Tarrant County game warden. "People always are asking questions that make you research, research and research.

Game wardens assigned to Harris, Galveston and Chambers Counties have approximately 300 miles of bay shoreline to monitor (left). Urban game wardens visit schools (top right) to educate students in wildlife conservation. Dallas-Fort Worth game wardens assist the U.S. Fish and Wildlife Service in certain cases dealing with the illegal importation or exportation of endangered and/or threatened wildlife species at the DFW International Airport's U.S. Customs Port (right).

Leroy Williamson



And if you are not researching answers to their questions, you usually are researching criminal law books on how to prosecute a case."

Issuing arrest warrants which were sent to the regional offices in Houston, Dallas, Fort Worth and San Antonio from game wardens in rural counties also is a time consuming activity. Urban game wardens find themselves becoming investigators as they try to locate suspected poachers and game violators. And in some instances, the suspects are never found.

Many of the warrants issued are a direct result of the successful Operation Game Thief program, which provides concerned citizens the chance to call toll-free, 1-800-792-GAME, to report game violations. Cash rewards, through private donations, are rewarded to Operation Game Thief callers when their information leads to a conviction.

All law enforcement employees of

the Texas Parks and Wildlife Department, including urban game wardens, emphasize education and prevention, before apprehension. To better educate the general public on hunter and water safety laws and changing game and fish restrictions, urban game wardens present hundreds of safety and wildlife information programs a year to church, school, civic and business organizations.

The audiences for these programs vary greatly in number and interest. The regional office in La Porte presented more than 30 hunting safety programs in the last three years to the Exxon Corporation alone. In October, Houston game warden Robert White had an audience of 1,200 at the First Baptist Church of Houston on a Thursday afternoon for a wildlife slide show, followed by a question and answer period.

The success of education and prevention in water safety is shown by the









low ratio of fatalities compared to registered boat owners in Texas. In 1966, there were 200,000 boat owners in the state and 91 fatalities in boating accidents. By 1986, there were 600,000 registered boat owners with 76 fatalities in boating accidents.

Despite the lower ratio of fatalities attributed to boating and hunting accidents, such accidents continue to occur. The first law enforcement officers to arrive at these scenes of tragedy are usually game wardens, and their testimonies are not pretty. One of the most graphic personal accounts was

In Texas counties with large metropolitan areas, the enforcement of
water safety laws is an ongoing necessity as thousands of beople visit
area lakes and parks on spring and
summer weekends (above). Local veterinarian offices often call game wardens to help identify wildlife species
such as these gray foxes (left). Owners
of all furbearers must obtain a furbearer propagation permit. Occasionally, game wardens sell hunting and
fishing licenses in the regional offices
(opposite page).

turned in by Tarrant County game warden Larry Osborne on Memorial Day weekend in 1982.

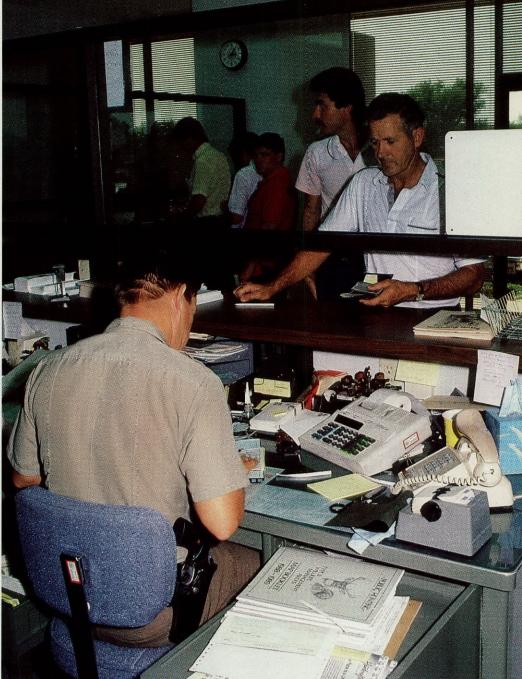
According to Osborne, he was patrolling on Lake Benbrook on that Sunday afternoon when he became aware of the crowded conditions around Mustang Beach. By late afternoon, the congestion of boats, skiers and swimmers had exceeded that of most holiday weekends. The swimmers, fallen skiers and drifting boats had caused all boat operators in the beach area to use extreme care in avoiding everything in the water.

Osborne had just checked a boat for water safety equipment when he saw another boat starting up in the "nowake zone," the area where boats are required to slow down to idle speed because of swimmers, tubers and people floating on air mattresses. The no-wake zone also separates the beach-bound boat traffic from the skiing traffic.

The boat that caught Osborne's attention was deep in the zone, close to shore and among several swimmers. It was quickly rising out of the water from full acceleration. Osborne immediately attempted to stop the offender for hazardous and reckless operation of a motorboat. The boater showed complete disregard for the rights and safety of others by ignoring the "nowake zone" buoys. The boater also showed little or no caution as he left the zone north-bound, at full speed, into the paths of east and west-bound boats pulling skiers.

As Osborne and his friend, Roger Mooney, now a game warden, continued their pursuit, they could tell by the boater's speed and direction of travel that his boat would soon cross directly behind a west-bound boat which was pulling a skier. What happened during the next few seconds was the worst possible tragedy. The reckless boater never saw the skier and the skier didn't see the offender's boat until it was too late. The skier's face reflected disbelief and horror as he let go of the rope and put his hands out to defend himself a split-second before the offender's boat hit him in the chest.

When Osborne's boat reached the floating skier, Osborne and Mooney pulled him out of the water and laid him across the bow seats. The skier wasn't breathing and no heartbeat



Glen Mills

was detected. Osborne immediately started CPR, with no response from the skier. As Osborne continued CPR, he noticed the skier's stomach was swelling, indicating internal bleeding. The skier's face and neck were turning dark, because his heart was not pumping the blood to carry exygen throughout his body. He was cead. The medical examiner's report later showed that the victim was probably dead when he was pulled from the water.

What makes this case even more dis-

turbing is that accidents like this are becoming more common on our public waters today. The violator in this instance had less than two hours operating experience in a boat of that size. A 17-foot, tri-hull boat with a 120 h.p. engine is no less cangerous than an automobile. In fact, a boat is more difficult to operate. But many boaters assume that knowing how to drive a car makes them a qualified boat operator.

Careless boaters often fail to realize two simple facts. One is that boats



don't have brakes Second, unlike a highway where there are a limited number of places where a driver can expect another vehicle to cross their path, the possibilities on a lake are limitless. On the water, there are no marked lanes to stay within or controlled intersections Another boat can come from anywhere.

Seeing the results of careless boating and hunting accidents is among the most difficult tasks a game warden must confront, but that is why they are there "When people come into our regional office here in Fort Worth to purchase their boating, hunting and fishing licenses, I don't think many of them fully comprehend what we as game wardens really do," said Larry Osborne. "And when we are asked about our duties from people who say they are interested in becoming a game warder, we tell them the way it really is, including the graphic details of water and hunting accidents. People need to know that game wardens do a lot more than just protect the Bambis out there."

Game wardens in Texas are certified peace officers and have the authority to enforce all laws including traffic violations and DWIs. Although some of these duties might be considered strictly a local, county or other state law enforcement agency's responsibility, Texas game wardens remind hundreds of drivers each year that reckless, hazardous driving will not be ignored by the law enforcement officers of the Texas Parks and Wildlife Department.

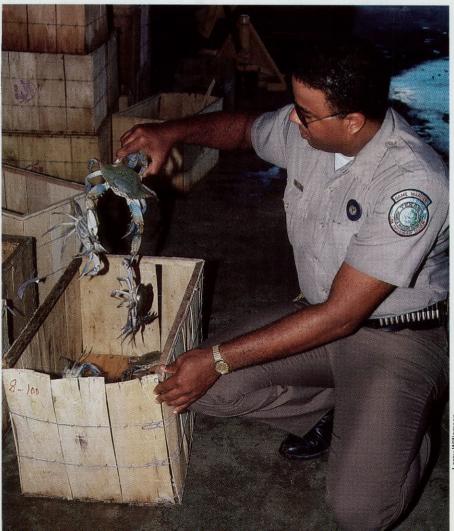
In Harris County, game wardens

Robert White, Donnie Robertson and Jerry Gordon said they have pulled up behind Houston police cars on the highway to offer a backup several times, especially when the police officer appears to need help. And urban game wardens are not insulated from one of the most disturbing situations facing any law enforcement officer, domestic abuse or disturbance.

According to Harris County game wardens, murders, burglaries and incidents of sabotage can occur between disgruntled fishermen, market owners and family members hunting together.

"After working down here for several years, nothing would surprise me," says Robert White. "There are always going to be outdoor, water and hunting accidents, but in and around the city, a great number of our criminal cases are not accidents; they in-

Checking local anglers for proper fishing licenses is a daily routine for Fort Worth-area game wardens (left and right). In Harris County, as in most Gulf Coast counties, a game warden's priorities include the checking of shrimpers, crabbers and saltwater fishermen, as well as the sale and distribution of all fish and shellfish at area restaurants, grocery stores and seafood markets (below).



volve people trying to get away with something illegal."

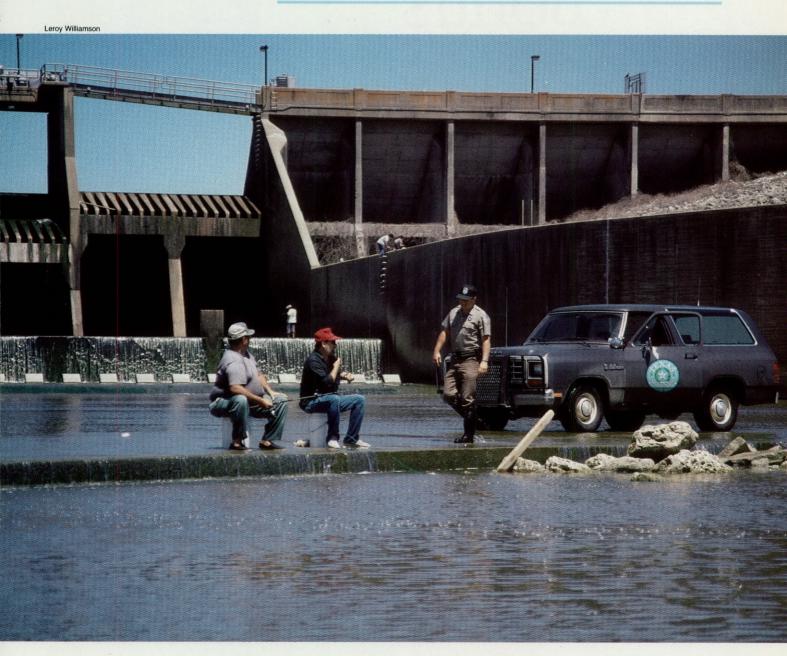
The urban game wardens' sense of duty and commitment to their jobs make them some of the state's most dedicated conservationists and law enforcement officers. They are on call 24 hours a day; and in the large metropolitan areas like Houston, Dallas, Fort Worth, San Antonio and Austin, varied duties often require a game warden to leave home at any hour of the day or night. Although they remain unknown to many city dwellers, there's no mistaking the need for urban game wardens.

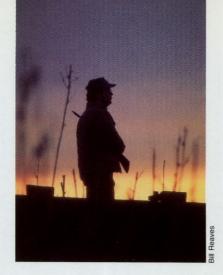
Game Warden Duties

Routine responsibilities assigned to all state game wardens include daily patrol for or investigation of game law violations; sport and commercial fishing violations on inland and coastal waters; violation of the Texas Water Safety Act; water pollution and inland littering; illegal taking or dredging of state-owned sand, shell or gravel; the Penal statutes prohibiting criminal trespass and the discharging of a firearm from a public road.

Game wardens also enforce the Public Beaches and Antiquities Sections of the Natural Resource Code; the Endangered Species Act and the Protected Nongame Species Act. And although they are not park rangers or park peace officers, game wardens often assist state park peace officers in the enforcement of state statutes and park regulations.

In addition to their primary duties of enforcing Texas game, fish and water safety laws, game wardens sometimes are called upon to assist with rescue operations, help maintain order and provide aid during natural disasters, present programs to schools and civic groups and serve their local communities in countless other ways.





Bonus Wingshooting

iven Texans' strong hunting tradition, it seems unlikely that any legitimate shooting sport could be overlooked or underutilized by the state's hunters.

However, judging from scientific data and opinions expressed by veteran biologists, Texas' winter mourning dove season may be left at the gate each January when other major hunting seasons are at full gallop.

Most of the state's 400,000 mourning dove hunters hit the fields during the first two weeks of the dove season, which begins September 1 in the North and Central Zones and September 20 in the South Zone. They do battle with mosquitos, fire ants and sweltering temperatures to get their shots at the fast-flying doves.

While dedicated dove hunters consider this early September exercise well worth the effort, how many of them have enjoyed the same wing-

shooting sport on a crisp, clear January morning?

If many Texas shotgunners fail to take advantage of this year's January 7–16 winter dove season in the state's Central and South Zones, it's not for a lack of birds. The southern half of Texas is wintering ground for a large percentage of the doves that migrate southward through the nation's midsection each fall. The highest concentrations of birds normally are found in a broad region bounded roughly by San Antonio, Del Rio and Corpus Christi.

Further, winter mourning doves tend to concentrate in higher numbers during January than during the regular fall hunting season, according to Ron George, dove program leader for the Texas Parks and Wildlife Department. "Because food supplies often are isolated during the winter, the birds tend to congregate in large num-

Too few Texans have enjoyed hunting mourning doves on a crisp South Texas afternoon. These doves could have migrated from as far away as Canada.

Steve Bentsen



Winter dove season is often overlooked.



bers in areas that provide consistent supplies of food, water and shelter," George said.

This means that hunters who are astute enough or lucky enough to be in the right place at the right time may find more doves per acre than they have ever seen. To find these winter hotspots, hunters should be aware that doves' January feeding patterns may be different from those of

September. When scouting for a place to hunt, keep in mind some of the birds' characteristics.

Doves prefer to peck their food from bare ground. They feed primarily on seeds and waste grain, seldom picking seeds from the vine or stalk. They almost never eat insects. During autumn they usually find food in recently harvested fields, but the scattered grain will be gone by winter, so they will have moved on. With natural food more difficult for doves to find, the birds tend to frequent pastures and lots where livestock is fed.

On a routine day, doves leave their roosting areas shortly after dawn and fly directly to feeding areas. They usually remain there until midmorning, when they may seek water or retreat to nearby loafing trees and pastures. They spend midday resting, preening, picking up grit and dusting themselves. In late afternoon they feed again. During the hour or so before sunset, they usually fly to water, then return to roost just before dusk.

The winter dove hunter should start scouting at dawn. He should watch for birds leaving their roost to feed. At dusk, he should watch for birds leaving their feeding and watering sites and returning to their roosts. During midday, pastures and feedlots are a good bet.

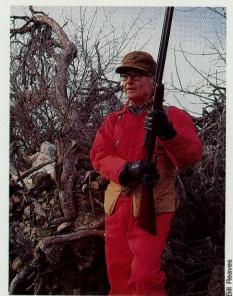
George points out that hunters should keep in mind that doves dislike high winds and will huddle near patches of weeds and brush for shelter. On windy days, a hunter should check the edges of fields and pastures. These locations may provide an opportunity for "walking up" doves. Wind may help mask the sound of the walking hunter as he proceeds down a fence line.

This style of hunting is a definite challenge for the wingshooter's skills. A dove exploding from a fencerow tree or thicket is difficult to hit. The bird usually drops downward first, then with powerful wingbeats rises or dodges sideways as it quickly puts distance between itself and the hunter.

While walking is an invigorating way to pursue January doves, most winter hunts occur around large fields where doves have found ready supplies of



The winter mourning dove season is an excellent opportunity to enjoy wingshooting when other seasons are closed or winding down. With high concentrations of birds and a 12-perday bag limit, winter mourning dove bunting offers plenty of action.



the January 7–16 winter mourning dove season. These bunters took advantage of a crisp, clear January day to enjoy a good bunt in Central Texas.

to 40 miles per hour; with a strong tailgood hunting

Feedlots, agricultural stubble, wooded fencerows and stock tanks are potentially good bunting areas during

food. Participants can use brush and other vegetation around field edges for cover, intercepting the birds as they pass back and forth to feed. This type of "pass shooting" also is challenging, especially after the first shot triggers the birds' characteristic dipsydoodle flight pattern. This elusiveness is reflected in data showing that dove hunters, on the average, bag only one bird for every eight shells fired.

For a real shooting challenge, try intercepting doves along a flyway such as a tree line, valley or water course. A mature mourning dove cruises at 30

to 40 miles per hour; with a strong tailwind he may whistle by at 60 miles per hour, making for some of the most difficult of all wingshooting.

Waterhole hunting is often as productive during January as during the September-October seasons. It tends to be better during dry periods when there are fewer puddles and temporary watering areas for the birds to visit. While hitting a dove on the wing is always difficult, tank shooting often is easier because the birds usually are close and may not be flying at top speed on their approach to a favorite watering area.

Doves prefer a barren area when they land for a drink, avoiding tanks or ponds that have vegetation growing down to the edge. Most Texas stock tanks have areas where cattle have trampled down the shoreline vegetation, and the birds will utilize these areas because of good visibility and lack of obstructions for a quick getaway.

When tank shooting, it may be advisable to avoid shooting doves right at the water's edge. To do so might ruin what would otherwise provide

good hunting for an entire season. Shooting around a productive tank should be done from 50 to 75 yards away and not at the water's edge. Incoming doves passing the shooting perimeter unscathed can still land for a drink. Roosting sites also should get the same consideration.

Repeated shooting on a daily basis may spoil even the best hunting site. It is best to have more than one area lined up for the season, so hunting pressure can be spread around. Doves subjected to a daily barrage of shotgun fire will quickly change their movements.

Perhaps it's a matter of timing that January dove hunting is apparently less appreciated than other hunting pursuits. It comes on the shank of the hunting year when the venison is already in the freezer, the bird dog has sore feet from quail hunting and springtime bass fishing time is just around the corner. But for those with a lingering itch and some space left on their outdoor calendar, a few outings in quest of the January mourning dove could be a strong elixir for midwinter boredom.









Long before hunters and soldiers discovered that they could conceal themselves by wearing clothing covered with green and brown splotches, the animal kingdom had mastered protective coloration. Mankind borrowed the technique of camouflage from nature, and as you will see on the following pages, it can be an effective way to avert the attention of a predator.



estled in a bed of fallen leaves, the woodcock's brown and white plumage provides effective camouflage for the bird (left). All but the most careful observer would overlook a green walkingstick perched on a branch of the same color (above).





olors on the common tree lizard (right) blend with the reptile's habitats, including this lichen-covered rock. The whitetail fawn's reddish-brown coat and white spots (below) blend with its surroundings we'll enough to fool most predators Yellowish-brown coloring protects the Gulf Coast toad (above).







bite streaks on an animal usually simulate sunlight falling on vegetation. This is the case with the American bittern (below), whose plumage allows it to conceal itself in tall grasses. A grayphase screech owl (right) resembles the bark of this tree, in which the bird has found a comfortable cavity. A motionless cottontail (far right) can hide beneath brushy vegetation, and a katydid (below right) is almost indistinguishable from the green maple leaf.











Idsiowski Pri



allen leaves provide effective camouflage for a copperhead (below). Cicadas (right) are more often heard than seen since they tend to disappear into the trees. A brown walkingstick (far right) could easily be mistaken for a twig.



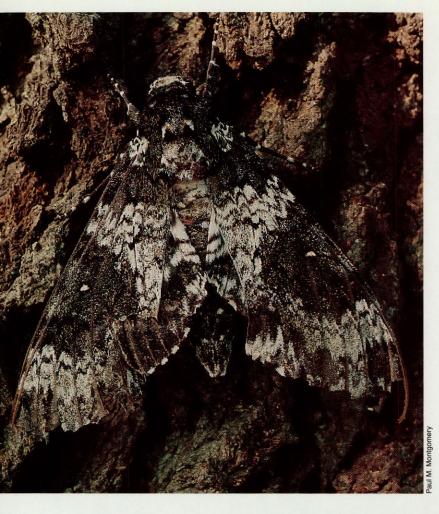


M. Montgomery



NATURE'S CAMO





oung birds need all the help they can get to survive, and nature provides a hand by helping them blend into their surroundings. These killdeer chicks (far left) are a good example of protective coloration. Caterpillars and moths provide the best examples of camouflage in nature. It's hard to tell where the giant hawk moth ends and the live oak begins (left). While many people are familiar with the whip-poor-will's call, the bird itself is something of a stranger, in part because of its ability to hide (below).



Ike's Birthplace

Our 34th president came from humble beginnings.

Article by Sherrie S. McLeRoy, Photos by Glen Mills

ivian Hassel remembers when she and the other children of Denison called it "The Haunted House." It was overgrown with shrubs and curtains flapped at the windows. "We'd fly by there," she says with a laugh.

Today, the house has been lovingly restored. It is the little-known birth-place of our 34th president, Dwight David Eisenhower. And until her retirement in September 1988, Vivian Hassel was a tour guide there for more than 18 years.

Located at 208 East Day Street in the North Texas railroad town of Denison, the birthplace was built sometime between 1880 and 1883. It's a modest, two-story frame house with the distinctive pitched roof and steep gables of the late Victorian Gothic style. It sits, as it always has, directly next to the tracks of the Missouri, Kansas, and Texas Railroad—affectionately known as "the Katy"—which brought David Eisenhower and his family here in 1888.

Denison was a new town then, just 16 years old. It owed its life to the Katy which, on Christmas Day 1872, became the first railroad to enter Texas from the north. Unable to find work in their native Kansas, the Eisenhowers came to Denison where David worked for the railroad as an engine wiper. They were the first family to rent the house and lived there three years before returning to Kansas. The third of their seven sons, David Dwight, was

born in the house on October 14, 1890, just eight months before the move to Abilene, Kansas.

After the Eisenhowers left, several families lived in the house. By World War II, it was beginning to show signs of hard wear. At that time, Supreme Allied Commander Dwight D. Eisen-

DWIGHT DAVID EISENHOWER hower began to make headlines in newspapers around the world, including Denison. Jennie Jackson, principal of Lamar Elementary School, saw the name and remembered that an Eisenhower family had once lived in Denison. In fact, she'd rocked their baby David. Could there be a connection somewhere?

Miss Jackson wrote the general, but even he wasn't sure where he'd been born, though he rather thought it was Tyler, Texas. He gave Miss Jackson the address of his mother Ida and suggested she write her, since she would surely know. Miss Jackson wrote and learned that, indeed, Eisenhower had been born in the house at the corner of Day and Lamar Streets in Denison. He had been named David Dwight at birth, but Mrs. Eisenhower soon switched the names to distinguish the child from his father.

Now the question was what to do with the house. At Miss Jackson's urging, it was purchased in 1946 by a group of Denison citizens. They deeded it to the city, which began to do some restoration work. But it was

An eight-foot statue of the former president dressed in a field jacket greets visitors. The house, which sits next to the tracks of the Missouri, Kansas and Texas Railroad, has been restored to reflect its appearance in the 1890s, when the Eisenhower family lived here.

obvious the city could not afford to do the whole job and maintain the house. In 1953, the Eisenhower Birthplace Foundation was formed, backed by the likes of Amon Carter, Sid Richardson and Webb Mattox. Denison gave them the property in 1955.

Houses immediately surrounding the site, including the old Jacobs Well health resort, were purchased and moved or torn down. With the help of Miss Jackson and two other ladies who had lived in the house after the Eisenhowers, it was restored to its 1890 appearance. Among the projects was the reconstruction of a railed porch on the second floor which had been removed years earlier.

Furnishing the house was another matter, however. Two years after the Eisenhowers returned to Kansas, their



School children enjoy stepping back in time at Eisenhouer Birthplace.



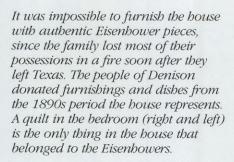




home burned, destroying most of their possessions. The people of Denison came to the rescue again, donating virtually everything that is in the house today. Because the Eisenhowers were of German descent, several local German families donated the dining room furniture and dishes that had been in their own families for generations. A quilt in the bedroom is the only piece in the house that belonged to the Eisenhower family.

In 1958, the foundation gave the site to the Texas State Parks Board (now the Texas Parks and Wildlife Department) which has administered it since. Glenn Ray, park superintendent of the Eisenhower Birthplace, estimates that 50,000 to 60,000 people visit the site each year from countries all over the world, including Russia and Japan.

Eisenhower Birthplace visitors see a small, Spartan home that is typical of one that would have been considered fine lodgings by a laborer such as David Eisenhower. The first floor, which is the only one open to the public, contains a bedroom, parlor, dining room, kitchen and small hallway. The entire house was heated in





the winter by the kitchen stove, although there was a fancy and little-used parlor stove. Photographs of General Eisenhower, made on his several trips to Denison, hang in the dining room; and the Eisenhower quilt is featured in the bedroom, along with a 133-year-old Singer sewing machine.

The spacious grounds include ample parking in front of the house. A courtyard beside the house features

OTHER AREA ATTRACTIONS

Five miles northwest of Denison is Eisenhower State Recreation Area consisting of 457 acres of woodlands and prairie. It borders on Lake Texoma, Texas' third largest reservoir, and offers numerous opportunities for outdoor recreation such as camping, fishing, swimming and enjoying the park's abundant birds and animals. Bird species include the Carolina chickadee, tufted titmouse, mourning dove, bobwhite and red-tailed hawk. Migrating birds, including the eared grebe, osprey, spotted sandpiper and purple finch also may be seen. Mammal species common to this area are white-tailed deer, raccoons, fox squirrels and the gray fox. To reach Eisenhower State Recreation Area take U.S.

Highway 75A to FM 1310 and travel 1.8 miles to Park Road 20.

Lake Texoma was formed in the 1940s by damming the Red River which here divides Texas from Oklahoma. There are many boating and lodging facilities on both sides of the lake and ample opportunities to swim, fish, hike, water ski, or just lie on the beach. There are even a few equestrian trails within the 195,326 acres of the Lake Texoma Recreation Area. Contact the Corps of Engineers (which operates the Recreation Area) at Rt. 4



an eight-foot statue of Eisenhower, dedicated to the young people of the world.

David Eisenhower, the president's grandson, visited the house for the first time in May 1987. His wife, Julie Nixon Eisenhower, daughter of President Richard M. Nixon, was present for the 1972 unveiling of the statue of "Ike." Eisenhower himself visited in 1946 and again in 1952, when he taped

a message that visitors to the site today can hear on an old telephone inside the house.

The trains still roar past the house, although the Katy itself no longer exists, having recently merged with Union Facific. The Eisenhower Birthplace reflects a simpler way of life that is no more; it is a tribute to a great American who rose from humble beginnings.

Eox 493. Denison, Texas 75020.

While in Denison, visit the restored 1909 Katy Depot, filled with shops, restaurants, and exhibits of rail history. Just outside town, in Loy Lake Park, is Grayson County Frontier Village, an 11-acre collection of early North Texas architecture. (Open 9 a.m. to 5 p.m. Tuesday–Friday, 2 p.m. to 5 p.m. on Sunday. Free.)

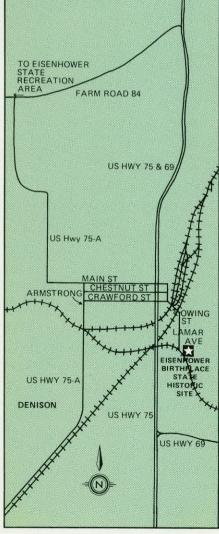
Hagerman National Wildlife Refuge is just a few miles west of Denison on the Big Mineral arm of Lake Texoma. The refuge protects native plants and animals of the North Texas region and serves as a stopover for thousands of migratory birds. The show of Canada and snow geese in the winter is spectacular. (Open every day. Free. Exit FM 691 west from Highway 75 to FM 1417, north 1½ miles, then follow signs.)

Sherman, just to the south of Denison, includes the Sherman Historical Museum the 1396 C. Stanly Roberts House (now under restoration) and Austin College, the oldest college in Texas still operating under its original charter.

Eisenhower Birthplace State Historic Site

Location: Denison, in northern Grayson County. Exit east on Crawford Street off U. S. Highway 75. After crossing under the railroad bridges, turn right and continue on Lamar Street for four blocks, to 208 East Day.

Hours and fees: Open 10 a.m. to 5 p.m. seven days a week (8 a.m. to 5 p.m. June 1 through Labor Day). Tours are \$1 for adults and 50 cents for children ages six through 11. The staff suggests calling in advance to arrange guided tours. For information: Write to Eisenhower Birthplace State Historic Site, 208 East Day, Denison, Texas 75020, or call 214-465-8908.



Outdoor Roundup by Jim Cox

Fishery Survey Completed by Parks and Wildlife

If you could envision the "average" Texas freshwater fisherman, he would be fishing in a boat on a lake with a friend or family member.

He would be fishing for black bass, as he does about 11 times a year. He would be happier if he caught more fish, but wouldn't necessarily keep them all if he caught more. He considers catching bigger fish an important factor in judging the success of a fishing trip.

In general, he believes length and bag limits are beneficial, and favors stocking of both native and nonnative fish species to improve fishing success.

This profile was taken from data compiled in the Statewide Freshwater Fishing Survey conducted by the Texas Parks and Wildlife Department (TPWD) and Texas A&M University. The survey was based on responses from 7,003 fishing license holders who were asked about their attitudes and preferences in freshwater fishing, according to Nick Carter, chief of the TPWD's Inland Fisheries Branch. The survey was conducted under the direction of Dr. Robert Ditton of Texas A&M and Dr. Steve Gutreuter of the TPWD.

One response from the survey that some may find interesting is that only nine percent of the respondents fished in a tournament during the previous year, and only eight percent indicated they were members of a fishing club or organization.

Black (largemouth, small-mouth and spotted) bass were sought by 52 percent of the fishermen polled, while catfish were the favorite of 22 percent.

A total of 62 percent said they were happier if they caught more fish, but only 18 percent said they wanted to keep all the fish they land. Almost half (47 percent) said they were just as happy if they did not keep all of the fish they caught.

That anglers value big fish was



How do your needs and desires as a fisherman compare to those of the "average" angler? A recent survey by Farks and Wildlife researchers may have some answers.

reflected in 46 percent of the respondents agreeing that catching bigger fish meant a better fishing trip, with only 28 percent disagreeing.

When asked to describe their most memorable fishing trip, the four most often mentioned factors were fishing at a particular place (20 percent), catching a particular kind of fish (20 percent), catching a number of fish (13 percent) and the size of fish (12 percent).

A total of 33 percent of the respondents favored the use of minimum length limits, and 73 percent supported creel (bag) limits. Slot limits were supported by 34 percent, opposed by 24 percent. Gutreuter said slot limits are used on only seven Texas reservoirs so some of the respondents may have been unfamiliar with this regulation.

Stocking native freshwater fish was supported by 91 percent of the anglers interviewed. Stocking saltwater fish in freshwater lakes was supported by 30 percent of the anglers, and stocking fish that are not native to Texas waters was supported by 54 percent.

Carter said the department will use the results of the survey to guide fishery management programs. "These programs already reflect the values of many Texas anglers," Carter said. "For example, our active stocking program provides fishing opportuni-

ties for a diversity of species, including the black basses, catfishes, striped and hybrid striped bass and rainbow trout."

Carter acided that the department has moved to enhance freshwater fishing through regulations. There now is a statewide 14-inch minimum length on all black basses, the species identified in the survey as the most popular. "This regulation is designed to improve catch rates of basses and increase the size distribution of bass populations through catch and release of fish less than 14 inches long," Carter said.

Also, the department has established special regulations designed to produce high-quality bass fishing on 11 reservoirs. These are 18- and 21-inch minimum length limits and a 14–21 inch slot limit. The department also enacted the first catch and release only regulation for bass in Purtis Creek State Park Lake near Athens and Lost Maples State Natural Area near Vanderpool.

Dallasite's Blue Marlin Sets New State Record

An 876-pound, eight-ounce blue marlin caught by James H. Farrow of Dallas on August 20 off Port Mansfield has been certified as a new state record. The fish was certified by the Texas Parks and Wildlife Department's fish records committee. Farrow's catch was 13 feet, two inches long and was taken about 50 miles east of Port Mansfield.

Also certified as new state saltwater records were five fish caught from offshore Gulf waters: a 12-pound, 12.16-ounce black margate caught by Horacio A. De-Leon of Laredo on July 14; a 37pound African pompano caught by Steven W. Smith of Galveston on August 20; a 16-pound, sevenounce almaco jack caught by Patrick L. Lemire of Texas City on September 13; a three-pound, 13ounce ocean triggerfish caught by Rusty Schwartz of Houston on August 14; and a 14-pound, 9.12 ounce rainbow runner caught by Michael Horton of Galveston in June off Port Aransas.

Waterfowl Habitat Project Launched Near Houston

An innovative project in the rice prairie country west of Houston is generating important landowner support for waterfowl, according to state and federal wildlife officials.

The project, which is the first U.S. effort in the North American Waterfowl Management Plan (NAWMP), involves the flooding of rice stubble to provide protected roost sites for waterfowl.

Outfitters and landowners Joe Broussard of Broussard Farm, Inc., Burton Moore and Bob Salver of the Devers area, and Harold Freeman and Larry Gore in the Katy area have entered into cooperative agreements with the U.S. Fish & Wildlife Service (USFWS) to perform the habitat work, according to USFWS officials.

Under the agreement, the USFWS will provide federal funding to defray the owners' cost of pumping water onto the sites. These areas will be closed to waterfowl hunting to provide sanctuary for a wide variety of waterfowl and other wetland wildlife.

Officials said that for less than

COMPILED BY THE PARKS AND WILDLIFE DEPARTMENT'S NEWS SERVICE

\$3,000, some 300 acres of previously unavailable wetlands will be provided for wildlife use from October 1 to March 1, 1989. If successful, USFWS officials said they would like to see some 20 leases in the area to help wildlife.

The NAWMP is a cooperative international program by federal, state, provincial and territorial agencies of the United States and Canada, as well as private conservation organizations, farmers and other private citizens to promote wetland protection.

The Texas Parks and Wildlife Department is participating in this Gulf Coast Joint Venture as well as the Lower Mississippi Valley Joint Venture (East Texas bottomland hardwoods) in support of the NAWMP. Also, as a part of this plan, the department contributed \$100,000 in Texas Duck Stamp funds to the Quill Lakes project on the waterfowl breeding grounds in Saskatchewan in support of the Prairie Pothole Joint Venture.

TPWD Obtains 25 Bighorn Sheep from Nevada

Wildlife biologists of the Texas Parks and Wildlife Department last fall completed the second desert bighorn sheep trapping operation in Nevada, capturing 25 sheep for release in West Texas.

Charles Allen, director of the department's Wildlife Division, said crews used net guns fired from helicopters to catch the animals in Nevada's Mormon Mountains. The 20 ewes and five rams were flown to two release sites in Culberson County.

Allen said 10 sheep were released on a ranch in the Baylor Mountains just east of the department's Sierra Diablo Wildlife Management Area, and 15 were liberated in the Van Horn Mountains south of Van Horn. Both ranches have signed agreements with the department to assist in research, management and hunting opportunity, Allen said. Radio collars were placed on 20 of the sheep, enabling biologists to monitor their movements.

Desert bighorns, the least numerous of North American bighorn species, once roamed over much of the mountainous Trans-Pecos region of Texas. They were virtually eliminated from the region by the turn of the century because of overhunting and disease.

The department has secured enough sheep for several self-sustaining herds, and prospects for reestablishing the species in favorable habitat in the Trans-Pecos appear to be improving, Allen said.



The American alligator, once rare in Texas, continues to maintain high populations.

Hunters Take 141 Gators During Public Hunt

Hunters participating in public hunts on the J.D. Murphree Wildlife Management Area during September harvested 141 alligators, Texas Parks and Wildlife Department officials said.

A total of 297 hunters participated, for a 48 percent success rate. The gators ranged in size from four feet, eight inches, to 12 feet, six inches, and from 10 pounds to 690 pounds. The average length and weight of all gators taken was eight feet, one inch and 136 pounds, according to Kirby

Brown, area manager.

This was the fourth year for public alligator hunts on the area, Brown said. In 1985, hunters took 44 animals during an experimental firearms hunt. In 1986 the harvest increased to 104 gators, and in 1987 hunters took 178 alligators using two lines perhunter. This was reduced to one line per hunter in 1988 to provide opportunity for additional participants.

Hunters were allowed to select from several methods to boat ar alligator, including hook and line long bow and arrow, harpoon gig and hand-held snare. Three gators were taken with bow and arrow in this year's hunt, with the remainder caught on hook and line.

The public hunts were conducted under strict harvest guidelines with tags allocated for surplus gators. Hunters were selected by drawing. These interested in participating in next year's hunt should contact the TPWD through the toll-free number, 1-800-792-1112 ext. 4505, or the Murphree Area at 409-736-2551 during June or July 1989.



Department biologists have their hands full with a bazged and blindfolded bigborn ram trapped in Nevada.

Pelicans' Progress by Christie Barnes



he brightly colored clown waddles to the edge of the rocks. Checking his surroundings, he clumsily jumps several times until magnificent wings spread to transform this awkward walker into a graceful aerialist.

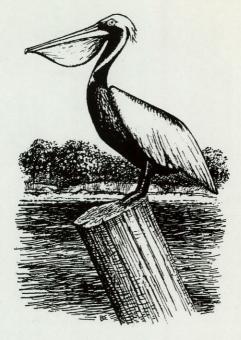
Watching closely, the others respond in a chain reaction, hopping, then spreading their wings almost immediately to follow their leader. Finally in the air, the group assembles in an organized fashion, usually a v-formation, and flies off to some unknown destination.

Being a peculiar-looking bird, the pelican fascinates the human eye. Usually seen sitting on a dock or post, its large body, long beak and double chin grants the pelican a second look, possibly followed by a quick laugh. Respect is all that can follow when the spectator sees the pelican flying gracefully, but ever so slowly through the air.

Eight different species of pelicans grace the skies of the world, and Texas has two of these species, commonly known as the white pelican and the brown pelican.

Nesting on only one spoil island in the Laguna Madre, the white pelican, *Pelecanus erythrorhynchos*, inhabits salt bays and beaches, plus inland lakes all over the United States. Unlike their brown cousins who dive for their food, white pelicans group together, beating their wings and driving their meal into the shallow water. This task is easily accomplished, and the fish are before them. All that is left to do is to

White pelicans gather into groups in shallow water for cooperative fishing efforts. Unlike the brown pelican, this species never dives for fish. Although they are graceful in flight, white pelicans waddle clumsily on land.



simply scoop the prey out of the water.

With a nine-foot wing span, the white pelican is basically white with black tips on the wings and a large, yellow pouch underneath a long beak.

Similar to the white pelican only in shape and features, the brown pelican's pouch and body are mostly brown with streaks of gray and black. The head is marked with white plumage. Generally smaller than the white pelican, the brown pelican, *Pelecanus occidentalis*, is also found in salt bays and estuaries all around the Gulf of Mexico and on small spoil islands.

What makes the brown pelican unique is its graceful diving technique used to catch fish near the surface. Circling overhead, the brown pelican spots a fish and keeps it in sight. Rotating into a dive, the pelican falls 60 to 70 feet and plunges into the water like an Olympic diver. With fish in pouch, the pelican bobs back to the surface like a cork.

Viewed with the naked eye, the impact of such a dive would appear to damage the bird. But what biologists know is that air sacs underneath the skin help to cushion the impact and protect the brown pelican from injury. Once to the surface, the pelican must keep its mouth open and drain the almost four gallons of water from its pouch quickly, before a scavenger such as a seagull snatches the fish dinner from the pouch.

In centuries past, people were charmed by the pelican and thought of the bird as a symbol of Christian charity. In 1535, Bartholomew observed and wrote what he thought was a parallel between the myth of the pelican and life of Jesus Christ. According to Bartholomew's story, the mother pelican pierces her breast and resurges the pelican fledglings back to life with her own blood after they have been dead for three days.

Unfortunately, mother pelicans do not have the power to pierce their bodies and revitalize their fledglings in real life. These symbols of Christian charity have been victimized by man, chemicals and nature in general.

Being vulnerable as fledglings, pelicans are hatched with no feathers and are susceptible to the great heat along the Texas Gulf Coast. Alluring to tourists and fishermen alike, the Gulf Coast has become an even more popular vacation spot in recent years. And with the increasing flocks of tourists, the pelican is continually being dislodged from its natural habitat to go in search of new and safe nesting places where predators cannot find them.

Early in this century, the pelican was subjected to brutalization by fishermen. Under the mistaken belief that pelicans were threatening their fish crop, fishermen developed true hate for the innocent pelican. Clubs in hand, fishermen resorted to violence and killed hundreds of pelicans. In truth, the pelican is no real threat to fishermen, eating mostly menhaden, which ironically is a nongame fish.

Ever the consummate conservationist, Teddy Roosevelt recognized a danger to the pelican population and established the first bird sanctuary on Florida's Pelican Island in 1903, but national consciousness was not raised for 70 years, until the brown pelican was declared endangered in 1973. And still the message has not been made clear.

At the seating of the 70th session of the Texas Legislature in 1987, legislation was proposed by Senator Carlos Truan that would have helped preserve the diminishing brown pelican population on Pelican Island near Corpus Christi. The bill would have designated both Pelican and Shamrock Islands as bird sanctuaries. Advocates of the bill, which did not pass, felt hopeful that it would ignite enthusiasm for their cause to save the slowly decreasing brown pelican population.

Despite strenuous efforts over the last 15 years, the brown pelican population is still in danger. Many reasons have been given for the trouble with the pelican, but the problem with human disturbance during nesting times seems to be the biggest problem according to a general consensus of conservationists.

In 1984, a *Texas Parks & Wildlife* article documented the efforts by the Audubon Society, U.S. Fish and Wildlife



Grady Aller

With wingspans of up to nine feet, white pelicans (left) are the largest soaring birds commonly found in Texas. Brown pelicans (below) plunge headfirst into the water to catch fish.

Service, Texas Parks and Wildlife Department and other volunteer forces who work together annually to keep a record of brown pelican populations in the Coastal Bend area by banding the legs of the pelicans. The article reported that pelicans were making "a slow but steady recovery."

But Emilie Payne, of the Audubon Society in Corpus Christi, doesn't agree and thinks the population is not improving. Disillusioned with the few responses to her efforts, Payne described her attempts to deter fishermen from wade fishing near the spoil islands. Payne added that the wade fishermen listen to her, but inconsiderately move back after she has left. "Legally, I can't get them when they are in the water," Payne said.

Unknown to most people, simply walking or fishing near a spoil island may cause the adult pelican to fly to a safer spot. Unable to fly, the baby pelican or incubating eggs are left in the sun, defenseless to die from the heat.



"If adults keep off the eggs, they won't incubate," said Catrina Martin, Parks and Wildlife nongame wildlife biologist. "Without shade the young die because they can't regulate their own body temperature."

Even more serious are the conditions on Sundown Island in Matagorda Bay, Payne said. Incidents of torn up nests and broken eggs of a variety of colonial breeding birds have been reported and wardens there have a hard time keeping people off that island during critical nesting periods in April through August.

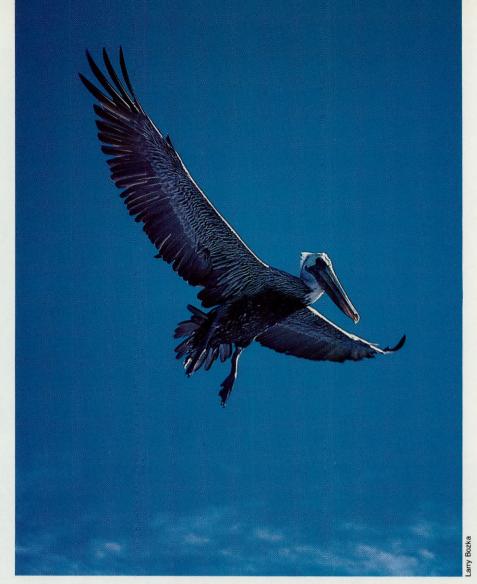
A pilot program was initiated by Texas Parks and Wildlife Department in the vicinity of these nesting islands during 1988 to reduce human disturbance. A seasonal biologist was hired to monitor these areas and inform boaters and anglers when they came too close to the islands and disturbed the nesting birds. The program revealed that most people were not aware of the effect of their presence but were willing to move to a safe distance when diplomatically informed. More of these efforts are planned by the department in the future to benefit these nesting birds.

Already diminished in numbers, the brown pelican population suffered even more following the introduction of DDT in 1940. The pesticide affected animal populations all along the Gulf Coast and the Pacific Ocean, and California's pelican population was affected much worse than Texas'. And, sadly, Louisiana lost her entire pelican population.

Receiving much attention, DDT's effects were studied extensively by the Department of the Interior during the late 1960s. Sparking public concern, DDT was outlawed in 1972. DDT's effects are harmful to pelicans, but experts seem to think that interference of man in the pelican's habitat caused more of a problem. "Brown pelican numbers were way down before pesticides came into the picture," Payne said.

Exposed to DDT through fish, the adult pelican builds up a concentration of DDT, but does not show any physical effects. After laying the eggs, the DDT buildup weakens the eggshells and often times the eggs break.

While the brown pelican population



Brown pelicans (above) fly with slow, strong flaps of their wings. Listed as an endangered species since 1974, brown pelican populations have been plagued by a host of problems, including DDT and human disturbance.

in Texas has increased dramatically in recent years, numbers are down by at least 50 percent along the coast of Mexico. Banding cata suggest that there is a relationship between the colonies. Further research is necessary to determine whether the birds are, in fact, increasing in number or if there is simply a movement of birds from Mexico to Texas.

White pelicans fared much better than brown pelicans, emerging from the 60s unscathed by DDT. White pelicans use only one spoil island for breeding in the Laguna Madre. Since they usually fed in water with a fresh inflow, white pelicans escaped some of the dangers of pesticides and other chemicals that brown pelicans could not elude.

Unfortunately, white pelicans in the

Laguna Madre area face their own problems. Because a growing number of tourists visit spoil islands for recreation, white pelicans run into a problem when pests such as lice invade their colony, Payne said. Once infested with lice, the white pelicans must move on to another island to rid themselves of continuing infestation. Their choices of places to move have dwindled because "most of those islands are leased out for recreation cabins," Payne said. "And the pelicans have no where to move."

Since they build their nests in trees and on the ground, pelicans can be susceptible to high winds and storms during the summer. If the nests are destroyed, the pelicans might not attempt to return to the nesting place.

Whether nesting, feeding or flying,

the pelican's idiosyncratic ways are carefully watched by conservationists who wish to preserve this precarious little clown from the dangers of the ignorant and the unconcerned.

Fighting for the pelicans' lives, conservationists continue to try to educate and warn people of the consequences of their actions. Illustrating the pelican's willingness to leave when bothered by little things, Arthur H. Howell writes of a sign erected on an island by the National Audubon Society declaring an island as a bird sanctuary. After the sign was erected, the entire pelican population left the island.

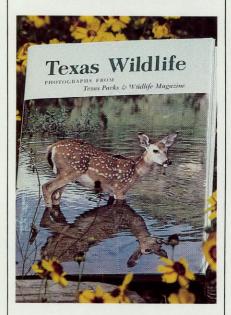
Stressing that the birds should be seen and not bothered, Payne suggests that it's fine to visit a spoil island by boat to observe the beauty of the bird varieties there. But Payne would like one simple rule to be followed: "Whatever you do, don't get off the boat."



Although white pelicans (below) fared better than browns (left) during the DDT era, both species suffer when humans disturb their nesting islands. White pelican populations appear to be stable, whereas brown pelicans are still in danger despite 15 years of efforts on their behalf.



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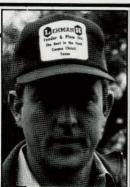
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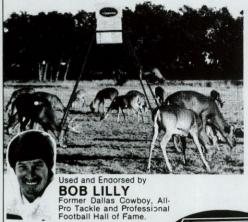




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Letters

Texas Shame

The article "Slaughter of the Ancients" in the February 1988 issue was both an informative and sickening review of our heritage and waste of natural resources not yet paralleled in the history of the United States

Shame on our Texas ancestors for laying to waste the buffalo, passenger pigeon and other resources too numerous to mention.

On page 30 of the February 1988 issue, you show a photo of two hunters skinning a buffalo, with a Sharps rifle leaning on the buffalo carcass. I wanted to point out that the negative of the photo was reversed. The rifle is shown having the saddle ring on the right side of the breech and the hammer on the left, when in fact the ring should be on the left and the hammer on the right, as is displayed in the photo comparing the modern-day .280-caliber Remington to the Sharps at the bottom of page 30.

I am an avid reader of your magazine for many years, and I faithfully pass each issue on to others so they can enjoy *Texas Parks* & *Wildlife* as much as I do.

Tom Cheek Richardson

Spike-only Tags?

Many biologists have encouraged the harvesting of spike bucks during the early part of the deer season to improve the quality of Texas deer herds. However, most hunters lease for only one year at a time and are reluctant to give up a chance for harvesting a trophy buck in order to shoot a spike, even if it improves the chances for a better herd.

As a Texas deer hunter all of my life, I would like to offer a suggestion. Why not add a "spike-only tag" to the existing deer tags? Then make the spike tag good for the first week of the deer season only. With the addition of such spike-only tags, the reluctance to shoot spikes would be overcome.

This would greatly improve the overall quality of the Texas deer herds.

Milton Scott Princeton

Magazine Comparison

I recently ordered the *National Parks* magazine and was very disappointed. I am considering sending them a copy of *Texas Parks & Wildlife*, so that they can see what a good magazine we have in Texas.

Keep up the good work.

Hazel Dionne Abilene

San Angelo Fan

I have been subscribing to your magazine for several years and I recently joined a hunting lease near San Angelo.

Has *Texas Parks & Wildlife* ever included any articles on the San Angelo area?

William J. Huffmaster Baton Rouge, Louisiana

■ Although we have not had a story concerning anything in the San Angelo area recently, look for an article on the Rocker B Ranch near San Angelo in fall 1989.

Texans Down Under

My husband and I want you to know how very much we enjoy *Texas Parks & Wildlife* magazine. Your September 1988 issue, which commemorated the department's 25th anniversary, was great.

My husband is originally from Texas, so you can imagine how *Texas Parks & Wild-life* takes him back to happy memories. I too, lived in Texas for awhile and love it as much as he does.

Two years ago, while visiting relatives in Texas, we traveled down to Mexico via Del Rio. On our way back into Texas, we stopped and camped at a trailer park near Lake Amistad, and what a beautiful place it was. So I was delighted to see the photos and article ("A Tattered Legacy" by Bob Parvin) about the lake and its archaeological treasures in the August 1988 issue. I only wish we had known about the archaeological artifacts so we could have seen some of them.

On the same trip, we had the experience of meeting up with the Sesquicentennial Wagon Train, which had toured the length and breadth of Texas. I took plenty of wonderful pictures so we could enjoy our Texas trip for years to come.

Although we are now senior citizens and do less traveling, we still hope to return to Texas to stay one day, but family ties at the moment hold us here in Western Australia. But the United States of America and Texas will always be home to us both.

Thank you for publishing such a great magazine, showing us the wonderful places and beautiful spots in Texas which I'm sure many people never knew existed. Mention Texas to most people and thoughts of desert and wide open spaces is all that comes to mind.

And to think that I lived there and never knew about many of the lovely places I read about in *Texas Parks & Wildlife* each month.

Phyllis Reeves Gosnells, Western Australia

INSIDE BACK COVER

This hairy caterpillar, which is the larva of a tussock moth, is almost indiscernible against the bark of a cedar elm. For many insects and small animals, the ability to camouflage themselves is their only defense against predators. See more amazing feats of camouflage in the wild beginning on page 24. Photo by Paul M. Montgomery.



