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# TEXAS

## PARKS & WILDLIFE



November 1988



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## TEXAS PARKS & WILDLIFE

November 1988, Vol. 46, No. 11

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(ISSN 0040-4586)

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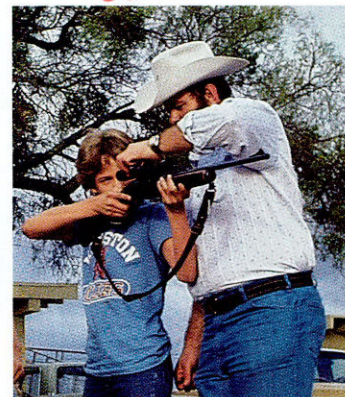
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Postmaster: If undeliverable, please send notices by form 3579 to 4200 Smith School Road, Austin, Texas 78744. Second-class postage paid at Austin, Texas, with additional mailing offices.



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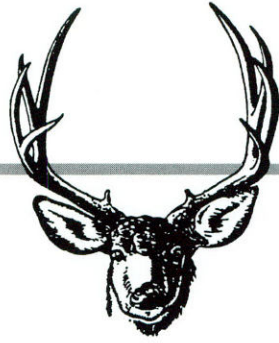


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### Covers

**Front and Back:** A brilliant display of fall foliage heralds autumn's arrival in East Texas. State parks such as Bonham, Daingerfield, Caddo Lake, Atlanta, Palestine and Rusk (site of this photo) are some of the best places to enjoy fall in East Texas. (See story on page 10.) Photo by Leroy Williamson. **Inside Front:** Although fungi are more noticeable in the spring and fall, some species, such as this gilled fungi, can be found in Texas throughout the year. (See story on page 24.) Photo by Paul M. Montgomery.



# CANYON MULEYS

**A** heavy-antlered mule deer buck is an animal many hunters look up to, literally.

In Texas, hunters traditionally look for desert muleys up in the Van Horn Mountains, the Glass Mountains and other rocky ranges of the Trans-Pecos region. That high country bias, however, has led hunters to overlook prime mule deer habitat that is right beneath their feet in a great hole called Palo Duro Canyon.

While the Trans-Pecos region may have most of the state's mule deer, the Panhandle's Palo Duro Canyon may have some of the best, according to hunters who have quietly discovered the trophy quality of the canyon herd. These sportsmen include O.J. Barnes of San Antonio and Tom Watson of Hye who saw and hunted the canyon for the first time last November as guests on the Harrell Ranch southeast of Amarillo. Their first impression on arriving at the rim of the canyon was the typical one: astonishment. The flat, treeless and wind-swept vastness of the High Plains does not prepare the traveler for stumbling suddenly on an awesome chasm sometimes called the "Grand Canyon of Texas."

Carved by the Prairie Dog Town Fork of the Red River, Palo Duro Canyon is 120 miles long, up to 800 feet deep and 20 miles wide.

After the shock of discovery, the first-time visitor is struck by the beauty of the rugged canyon walls, which appear in shades of red, orange, purple, brown and white. In places, the erosion pattern on the multi-colored layers of clay and rock create formations called Spanish Skirts because of the resemblance to the folds and ruffles of a Spanish dancer's dress.

When the scrutinizing eye of the hunter shifts from the panoramic grandeur to a closer inspection of the terrain, the canyon appears as a verdant oasis in a waterless sea of grassy plains. Feeder canyons, finger ridges and mesas drop from Palo Duro's treeless rim to the canyon floor, where the Prairie Dog Town Fork and its feeder creeks flow among tall cottonwoods. The ridges, side canyons and mesas themselves are thickly vegetated with shin oak, mountain mahogany, cedar, hackberry, cactus and a wealth of grass and weeds that comprise a rich habitat for wildlife. This is how it must have appeared to the bands of Folsom and

by Buddy Gough



Bill Morrill

*Panhandle is home to trophy mule deer herds.*





Clovis people who first hunted the canyon around 10,000 B.C. and continued to do so for the next 5,000 years, pursuing mammoths and giant bison that roamed the area.

In more recent history, the canyon was a home and hunting ground for various tribes of plains Indians who preyed on herds of buffalo. The long association of Indians with the canyon probably accounts for the name Palo Duro, which means "hardwood" in Spanish and refers to the canyon's cedar brush, which the Indians used for bows and arrows.

In the 19th century, the canyon was part of the last homeland of the Comanches, who fought to hold it until they were finally defeated by Colonel Ranald Mackenzie and his troops in 1874. Two years later, the legendary Charles Goodnight arrived with his herd of cattle to set up the first commercial cattle ranch in the Panhandle, driving 10,000 buffalo out of the canyon in the process. Native mule deer in the canyon soon went the way of the buffalo.

Mule deer had practically ceased to exist in the canyon when the Texas Parks and Wildlife Department transplanted desert muleys from the Trans-Pecos to Palo Duro in the 1950s. During the same decade, the department

also introduced aoudad sheep to the canyon. The animals soon thrived in a habitat which was similar to their native range in North Africa. Except for flocks of Rio Grande turkeys and a few white-tailed deer, the desert mule deer and aoudad sheep currently constitute the major game animals in the canyon.

The Panhandle mule deer herd as a whole is generally considered to be relatively small in numbers, but stable and healthy, according to wildlife biologist David Dvorak of Amarillo, who has monitored the animals for the past 18 years. That pity description, however, did not fully prepare hunters Barnes and Watson for the quality of bucks they encountered on the 35,000-acre Harrell Ranch, despite prior assurances from wildlife biologist Dr. William Morrill who developed the ranch's deer management program.

When the two hunters met their guide Jim Detten on the opening morning of the Panhandle mule deer season, they quickly learned that hunting the Palo Duro is not a meat market venture that involves riding around in a vehicle, perusing a number of bucks before making a selection. The guide, dressed in weathered clothing with an equally weathered 300 H&H rifle over his shoulder and a pair of high-power,

high-quality binoculars around his neck, informed Barnes and Watson that the hunt would be fair chase, conducted afoot via finger ridges sloping down from the rim of the canyon.

Since the sportsman is essentially hunting a hole in the ground, the focus of a Palo Duro hunt is somewhat unusual, being mostly downhill—stalking down, looking down, glassing down. The approach is quite serious, as Detten demonstrated at the first finger ridge he selected to hunt on a crisp, clear fall morning that showed off the canyon at its colorful best.

In an impressive display of stealth, the guide led his hunters down slope, playing a painstaking game of hide and seek, slipping in slow motion among shin oaks and cedars, pausing every few steps to visually dissect the ridgeline ahead and the steep feeder canyons to either side. For nearly two hours, Barnes followed the young guide, mimicking his unflagging stealth, convinced by the guide's stealth that a muley buck might appear at any time.

One did.

Moving at an unhurried and stately pace, a mule deer buck strolled into view on another finger ridge 250 yards across a narrow, steep canyon from the hunter's position. Catching a flash



Glen Mills

*Carved by the Prairie Dog Town Fork of the Red River, Palo Duro Canyon (top left) is 120 miles long, up to 800 feet deep and 20 miles wide. While the Trans-Pecos region may have most of the state's mule deer (above), the Panhandle's Palo Duro Canyon may have some of the best.*



Bill Morrill

*Dressed in weathered clothing with a 300 H&H rifle over his shoulder and a pair of high-power, high-quality binoculars around his neck, guide Jim Detten is ready for the opening morning of the Panhandle mule deer season.*

of sunlight on antlers, Detten and Barnes riveted their binoculars on the ridge, glassing a heavy-bodied, mature muley buck with a Roman nose and a 10-point "basket" rack that appeared to be high and very heavy.

Moving slowly and ponderously through a screen of shin oak and cedar, the buck walked down the slope of the ridge to a narrow point that dropped off abruptly in the depths of Palo Duro Canyon. At the point, framed against the panoramic grandeur of the canyon, the big muley stopped and began feeding on acorns

beneath several small shin oaks.

Proclaiming the buck to be an "old one" and a "good one," Detten told Barnes they would try to work to the edge of the feeder canyon separating the two ridges and attempt a cross canyon shot. The two hunters moved off at a crouch, then on hands and knees and finally on elbows and stomach. Minutes later a rifle cracked, a puff of dust and fur flew from the buck's neck and shoulder and the animal dropped in its tracks.

There was little ground shrinkage as Barnes approached his trophy after a

laborious hike across the feeder canyon. The symmetrical antlers had a spread of 20 inches, but the bases measured  $6\frac{1}{4}$  inches, with good mass carried throughout the beams to the impressive height of 22 inches. Detten estimated the buck's weight at 200 pounds, and later judged it at  $7\frac{1}{2}$  years of age.

After several mule deer hunts to Colorado and New Mexico, the buck was the best muley Barnes had ever taken, and later scored high enough to earn the hunter a certificate on the Burkett scoring system.

## HUNTING PALO DURO CANYON

**A**lthough Palo Duro Canyon is prime habitat for mule deer, hunting opportunities are relatively limited within the confines of the canyon rim. Even in the midst of this year's season it's not too early to plan for 1989 mule deer hunts.

Not all ranches in the canyon offer trespass rights to hunters, and the ones that do have relatively low harvest rates on a per acre basis. This is particularly true on the ranches known to produce quality mule deer bucks. On the 35,000-acre Harrell Ranch, eight bucks are taken annually; on the 115,000-acre Cogdell Ranch, the desired annual harvest is 30 bucks. Thus, available hunts are usually filled early, with many of the hunters coming from out of state.

Many of the mule deer hunts are guided hunts with meals and lodg-

ing included, but there are several ranches offering season lease opportunities.

As is always the case with arranging a hunt for a quality muley or whitetail buck, the hunter should do thorough research. Ask for and check references. Inquire about wildlife management programs relative to harvest, census and habitat usage.

The following are several sources of hunting opportunity in the canyon:

Cogdell Ranch (MD) 115,000 acres, 30 buck hunts, \$1,650 for four and five day hunts with guide, lodging and food. Call Gary Conner, 806-352-1106.

Harrell Ranch, 35,000 acres, eight buck hunts, \$1,000 for four-day hunts with guide, lodging and food. Call O. J. Barnes, 512-492-6448.

Lighthouse Ranch, 16,000 acres, eight buck hunts, \$1,250 for four-day

hunts with guide, lodging and food. Call O. J. Barnes, 512-492-6448.

Reata Trails Ranch, 8,000 acres, eight buck hunts, \$1,250 for four-day hunts with guide, lodging and food. Call O. J. Barnes, 512-492-6448.

Curtis Preston, county extension agent, cited two ranches near Palo Duro Canyon State Park as representative of season lease opportunity (cabin provided): Tom Burson Ranch, 12,000 acres, 12 bucks, 12 hunters at \$1,000 per gun; Jim Burson Ranch, 8,000 acres, eight bucks, eight hunters at \$750 per gun.

In addition, a list of mule deer hunting opportunities can be obtained from the Briscoe County Agricultural Extension Office, 806-823-2131. The Texas Parks and Wildlife Department also maintains a Deer Hunting Registry by county. For information contact them by writing the Wildlife Division at 4200 Smith School Road, Austin, TX, 78744, or call toll-free, 1-800-792-1112.

The next afternoon, Detten guided Watson to an even more impressive trophy, a 200-pound-plus mule deer with a heavy and wide antlers sporting 16 points, 6¼-inch base and a 29-inch spread.

Though the animals were desert mule deer, they appeared to have horn mass more typical of Rocky Mountain muley than their brethren in the Trans-Pecos. Even so, the two quality bucks were not unheard of among the Palo Duro Canyon mule deer herd, according to Gary Conner of Amarillo who has managed hunts for 16 years on the Cogdell Ranch.

Comprising 115,000 acres, the ranch is located north of Silverton in a part of the canyon that widens to more than 10 miles, providing more mule deer habitat than the narrower confines of the Harrell Ranch adjacent to Palo Duro Canyon State Park.

"The typical trophy buck taken off the Cogdell Ranch has antlers with six-inch bases and a spread of 24 to 28 inches outside," Conner said. "They average five years or older and have a live weight of 210 to 220 pounds."

The best muley taken off the ranch last year was a 14-pointer with an exceptional 35¼-inch spread. Nearly record book size, the buck grossed 193 Boone & Crockett points, and was certainly one of the best, if not the

best, muley taken in Texas last year.

"The dream of mule deer hunters is to take a 30-inch buck, and there are not many of those anywhere, but we know Palo Duro Canyon has produced at least one," Conner said, speaking of the big Cogdell buck. Such quality, however, does not fit the overall picture of mule deer hunting in the Panhandle, according to harvest data compiled by Ted Clark, mule deer program leader for TPWD.

"The Panhandle has only about 20 percent of the mule deer in Texas, but there is more hunting pressure on the bucks than in the Trans-Pecos where you have 80 percent of the herd," Clark said. "The annual harvest of available bucks in the Panhandle is 13 percent compared to seven to eight percent in the Trans-Pecos," the biologist continued. "The average age of bucks killed in the Panhandle is 3½ years compared to 4½ years in the Trans-Pecos."

Thus, the situation for mule deer in the Panhandle as a whole does not appear as favorable as the Trans-Pecos.

What, then, accounts for the quality of the mule deer in Palo Duro Canyon?

Conner says there is speculation that the mule deer in the canyon are hybrids of Rocky Mountain and desert species. At the time the desert muleys were introduced, there was still a

handful of native mule deer in the canyon, and Conner believes these could have been Rocky Mountain deer. The canyon is certainly closer to the range of the larger Rocky Mountain muleys than the range of desert muleys in the Trans-Pecos.

However, an undeniable plus factor is the habitat of the canyon. Surface water is abundant along the river and tributary creeks and around numerous windmill tanks. Shin oak, mountain mahogany and hackberry provide adequate browse, and the shin oaks produce acorn mast in the fall. The canyon enjoys an annual average rainfall of 20 inches, compared to 12 to 15 inches in the Trans-Pecos. The moisture promotes the growth of browse as well as forbs needed to sustain a healthy herd. Palo Duro mule deer also take advantage of winter wheat grown around the canyon rim. And since the canyon is not overgrazed, there is little competition between mule deer and cattle.

Another advantage is a relatively low density mule deer population on a per-acre basis combined with a good buck-doe balance, even though antlerless deer are rarely harvested in the canyon. The low density and favorable balance are probably the result of a fawn mortality that wildlife researchers at Texas Tech University estimated as high as 60 to 70 percent annually. The wildlife biologists don't know all the reasons for the high mortality, but predation is certainly one.

Proper mule deer management of the type practiced on the Harrell and Cogdell Ranches also increases populations. Both ranches employ the services of private wildlife consultants to survey mule deer populations and set harvest recommendations, which are religiously followed.

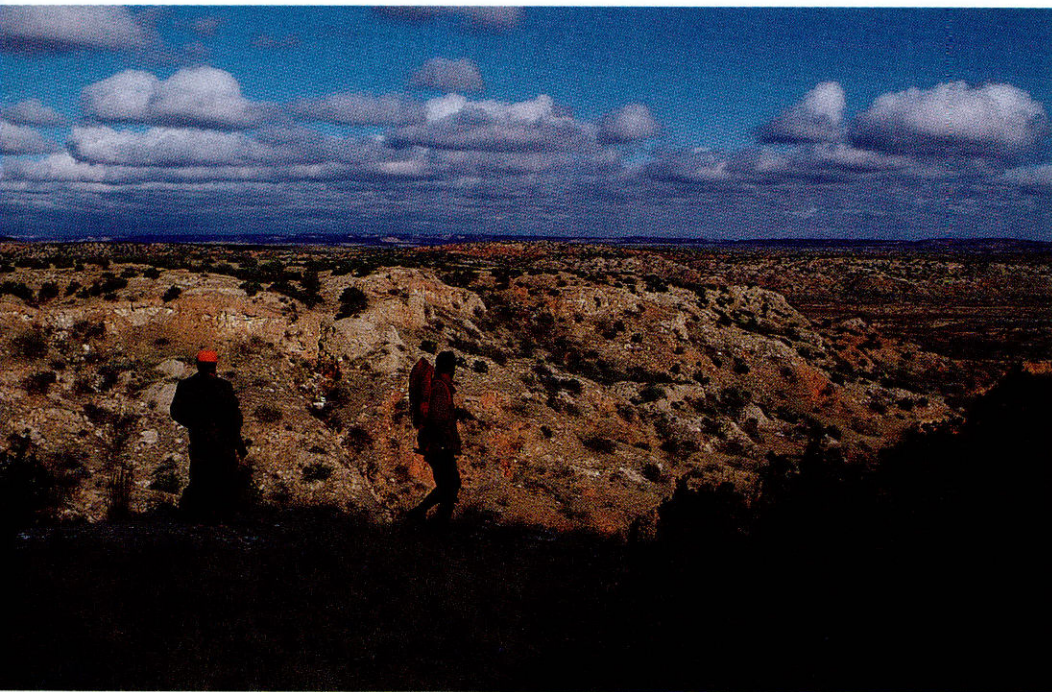
Of the estimated 250 mule deer on the Cogdell Ranch, about 30 are taken annually; on the Harrell Ranch, eight bucks are harvested. The take of approximately one buck per 3,000 acres allows for plenty mature bucks in the herd.

There are probably areas in Palo Duro Canyon that are overhunted and poorly managed, as is the case with deer ranges everywhere, but where all the plus factors come together, the quality of Palo Duro mule deer is as good as it gets.

Maybe better.

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*The focus of a mule deer hunt at Palo Duro Canyon (below) is somewhat unusual, being mostly downhill—stalking down, looking down, glassing down.*



Glen Mills



# PANHANDLE PARTNERS

## *Whitetails and Muleys*



yman P. Meinzer

by James D. Ray and Fred C. Bryant

**T**he Texas Panhandle is a flat to rolling prairie intersected by deep, rugged canyons, fragile sandhills and the caprock escarpment on its eastern edge. Add to this acre upon acre of beautiful farmland with wooded draws and playa lakes to break up the monotony, and you have a situation favorable to a variety of wildlife. This is where east meets west, where the mule deer and the white-tailed deer share their homes.

Discontinuous populations of mule deer can be found across the plains states, offering testimony to their remarkable adaptability. In those states, there are only occasional escarpments, buttes, draws and stream bottoms to provide enough forage diversity and cover to support deer. Mule deer

nearly vanished from the plains by the late 1930s; however, Texas Parks and Wildlife records show the Texas Panhandle herd was estimated to be near 13,000 in 1938.

The drastic reduction of mule deer numbers in most plains states was probably due to a combination of factors: excessive hunting, intensive farming, several periods of severe drought, overgrazing by domestic livestock and several extremely severe winters. From the late 1940s to the late 1960s, the Texas Parks and Wildlife Department released approximately 300 mule deer into Palo Duro Canyon. According to the November 1982 *Texas Parks & Wildlife* magazine, additional mule deer were released in the Canadian River area and in other parts of the Panhandle during that same time

span, but the total number involved was only about 1,000 animals.

Because the animals stocked in the Panhandle came from the Trans-Pecos, the mule deer subspecies should be desert mule deer, *Odocoileus hemionus crooki*. However, it is possible that there is genetic influence from herds of the Rocky Mountain mule deer, *O. b. hemionus*, especially in the Canadian River country west of Amarillo. Here, the Punta de Agua Creek south and west of Dalhart and a few other tributaries function as corridors and allow rocky mountain mule deer to extend from the Rocky Mountains into northern New Mexico and even into the Oklahoma and Texas Panhandles.

There is more than 2.3 million acres of mule deer habitat in the Panhandle.

Muleys are found in the rolling hills and canyons associated with the breaks and tributaries of the Canadian River, Red River and the caprock escarpment. In a study by Ernie Wiggers and Sam Beasom, Texas Tech University, and the U. S. Forest Service, it was determined that the more rugged the terrain in the Panhandle, the more mule deer they found. Muleys often are seen far from the typical mule deer cover, especially in areas where winter wheat fields and other sought-after crops attract them. They have even been spotted in the sand dunes of western Andrews County.

Mule deer numbers vary from one deer per 500 acres to one deer per 50 acres across the Panhandle, with an average of one deer per 100 acres. Autumn counts suggest that about 20 to 30 fawns are added annually for each 100 does. Over the last several years, the prehunt population has been estimated between 8,000 and 30,000 deer with an average of 21,000. According to Texas Parks and Wildlife's 1986 report on mule deer, there was a two-percent decrease in the population of the Panhandle mule deer herd from 1984 to 1985 and a 12-percent drop between '85 and '86.

Juniper breaks are the most important habitat to mule deer in the Texas Panhandle. Sand sagebrush vegetation is also sought by deer if it is within ½ to one mile of hiding cover. These areas are used for feeding because sandy soils provide a high density of forbs.

Skunkbush sumac is the most important browse species in the diet of Panhandle mule deer. Sand sagebrush is important in the Canadian River area, as is juniper in the Clarendon area; mountain mahogany and shinoak are important to deer in Palo Duro Canyon. Important forbs are trailing ratany, half-shrub sundrop, sagewort, bladderpod, western ragweed, globe-mallow, and spectacle pod.

The white-tailed deer is probably the most heavily researched big game species in the United States. However, information on whitetails in the Texas Panhandle is lacking. We do know that in the 1940s and 1950s, whitetails were rare or at least confined to the eastern half of the Panhandle. Today whitetails are common in the traditional mule deer range of the western Texas Panhandle, west of U.S. 287. We've seen



Wyman P. Meinzer

them near Cal Farley's Boy's Ranch on the Canadian River and on Rita Blanca Creek south of Dalhart. Tom Black of the Reynolds Ranch near Hartley reports of whitetails inhabiting that ranch in Rita Blanca Creek, and that in the last several years the population of whitetails has exploded. Dalton Hadnot of the Castleberry Ranch on Punta de Aqua Creek southwest of Dalhart tells of whitetails now inhabiting that ranch, as does Doug Florance of the Beck Ranch. The Beck Ranch is on the New Mexico state line, and according to Florance, has had whitetails for five or six years.

In October of last year we flew over much of the western Canadian River, Punta de Aqua Creek and Rita Blanca

Creek. We found whitetails mainly associated with isolated, dense stands of cottonwoods in that area.

White-tailed deer are one of the most adaptable big game species in North America. Their range has spread slowly from east to west. Whitetails can utilize habitats dominated by mesquite

*With its rolling prairies, rugged canyons, fragile sandhills, playa lakes and beautiful farmland with wooded areas, the Texas Panhandle provides suitable habitat for a variety of wildlife, including the white-tailed deer (right) and the mule deer (above).*

and are at home in the dense growth of cottonwood, salt cedar, willows, hackberry and other streamside vegetation of the Panhandle. They now inhabit most of the major drainages of the Panhandle that have sufficient woody cover to support them. Future studies may seek to determine just where whitetails may spread, by identifying woody cover they prefer. Research by Texas Tech suggests that brush infestation in the Pecos River area has continued over the last century, resulting in habitat conditions which now favor white-tailed deer.

One concern about such significant range overlap between the two species is increased potential for hybridization. This does occur, but probably is not common since behavioral differences usually isolate the two species. One Montana researcher found that most crosses resulted from a whitetail

buck and a mule deer doe, but recent Texas A&M findings show the opposite.

Texas Tech researcher Suzy Stubblefield studied cross-breeding of these two deer in the Trans Pecos. "Although not a serious problem," said Stubblefield, "we did find an average of about six percent of the bucks harvested may have been hybrids. On one ranch the incidence was as high as 24 percent." Both Tom Black of the Reynolds Ranch and Dalton Hadnot of the Castleberry Ranch believe that hybrids are on their ranches.

Hybridization is a concern because the pure mule deer strain will be genetically diluted if mule deer does are giving birth to fawns fathered by whitetail bucks. This certainly is not desirable in the western half of the Panhandle, which is considered traditional mule deer range.

One other concern is the possible displacement of mule deer by white-tailed deer. Studies in West Texas by Texas Tech University have shown that white-tailed deer have expanded into new locations at a rate twice that of mule deer. This may occur only because mule deer don't like the heavily wooded areas preferred by whitetails. Or it may occur because whitetails are more adaptable than mule deer. Further study is required to determine whether or not muleys decline due to behavioral peculiarities, habitat change, or because of competition with whitetails.

It's hard to match a white-tailed deer when it comes down to sheer beauty. And a big mule deer buck and a West Texas sunset seem to go hand in hand. The East has its whitetails and the West its muleys, but the Panhandle has them both. \*\*

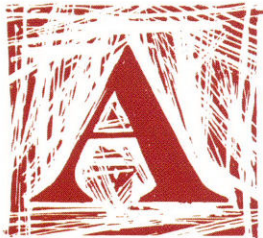


Wyman P. Meinzer

# Autumn Comes to East Texas

Text by Mary-Love Bigony, Photos by Leroy Williamson





*Autumn comes late to East Texas. When Halloween is over, and plans for Thanksgiving are underway, warm temperatures finally relinquish their hold on the pine and hardwood forests of the east. Temperatures that climbed into the 80s during October settle into a pattern of 50- and 60-degree days during November. Leaves of the hardwood trees show traces of red and gold, and before the month is over, people will awaken to frost on the ground.*

*The region known as East Texas is comprised of two ecological areas, the Pineywoods and the Post Oak Sa-*



*Sweetgums and loblolly pines line the lake at Tyler State Park, while post oak leaves litter the ground at Governor Hogg Shrine in Quitman (above). A crisp autumn morning dawns at Daingerfield State Park (previous page).*



*Baldcypress trees near Jefferson (above) lead the way to Caddo Lake State Park. Sweetgums (below) produce some of the most colorful fall foliage. These were found at Palestine.*



*vannah. Anyone who expects nothing more from East Texas than acres and acres of pine trees is in for a surprise. Pines are abundant, of course, but there are generous numbers of oaks, elms, sweetgums and maples, trees that can produce lush fall foliage.*

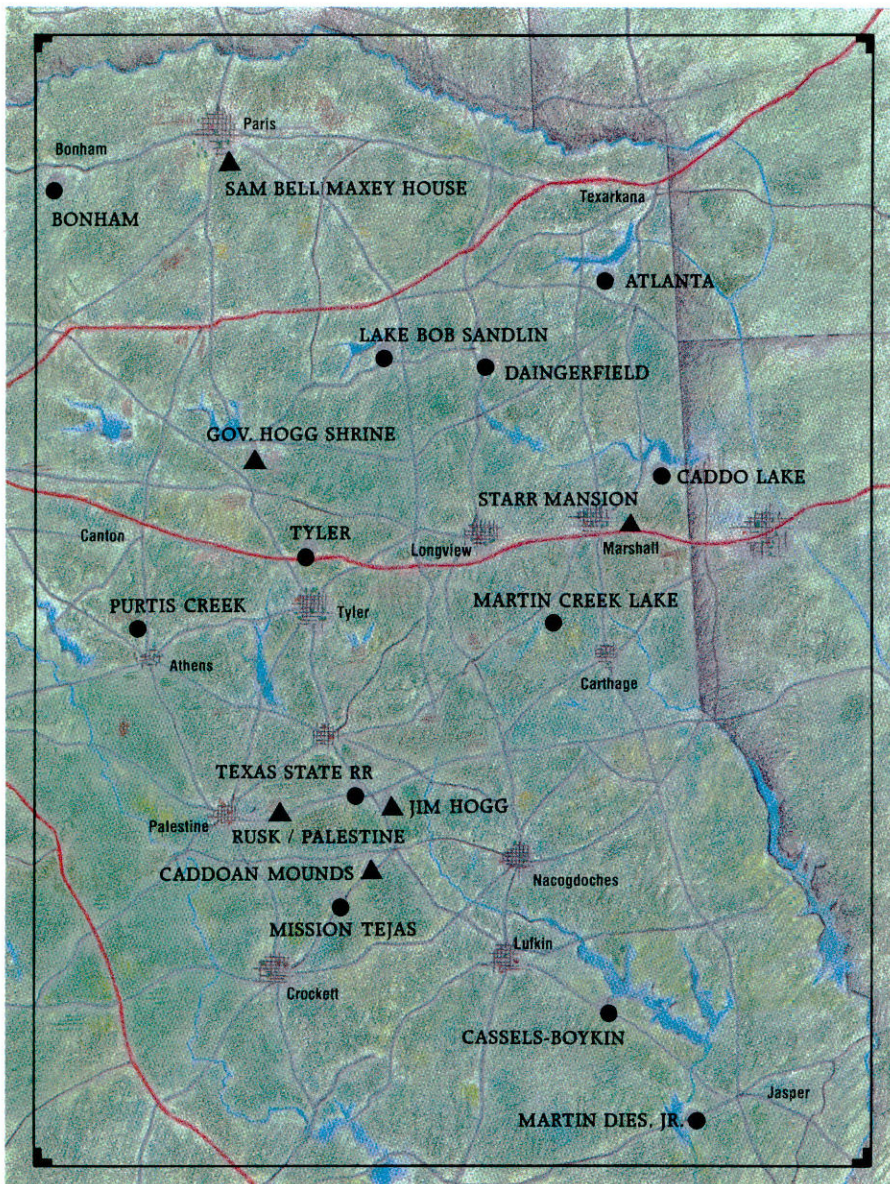
*Texans eager for a look at the colors of autumn beat a path to Lost Maples State Natural Area in the Hill Country each fall. East Texas is largely overlooked in this scramble, but people who don't enjoy fighting the crowds at Lost Maples would do well to head east. East Texas trees usually don't begin to turn until November, and often it is Thanksgiving before they are in their full*

colors. As with many natural phenomena, weather plays a large part; in the case of fall foliage, weather determines how vibrant the colors will be each year.

State parks are excellent places to enjoy many aspects of nature, including fall foliage. East Texas state parks are less crowded in the fall than in the summer, an added attraction for many visitors. There is no shortage of parks in East Texas; campers can enjoy the season at parks such as Tyler, Daingerfield, Bonham, Caddo Lake and Atlanta. Travelers through the area might want to



Pines are interspersed with sweetgums at Atlanta State Park, in the north-eastern corner of Texas (above). For information about the state parks, call toll-free, 1-800-792-1112.



A November day found turtles lining up beneath a baldcypress decked with Spanish moss at Caddo Lake (above). Adding color to the landscape at Bonham State Park (center) are possumhaw fruits, also called deciduous holly or deciduous yaupon.



*The sun rises on a frosty landscape in late November at Rusk State Park (above). Pines and hardwoods combine for interesting colors and textures at Daingerfield (below).*

*stop at some of the day-use parks such as Governor Hogg Shrine and Sam Bell Maxey House. Although the Texas State Railroad is closed for the winter, state parks in Palestine and Rusk, at either end of the line, usually are awash in fall colors.*

*Autumn comes late to East Texas, and winter is not far behind. But for a few weeks each year, a gallery of fall foliage awaits travelers through this part of the state.*



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# Holidays Got You Covered Up?

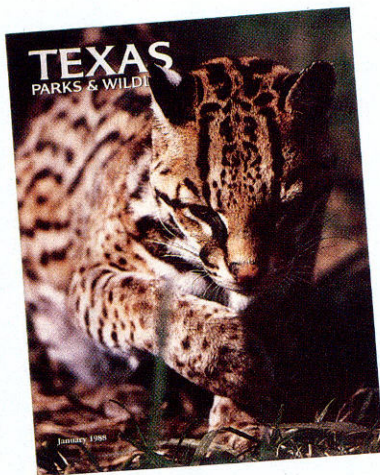
Holiday shopping is tough work. It's hard to keep the holiday spirit and still get your shopping done, so we'll make it simple for you this year.

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# Outdoor Roundup

by Jim Cox

COMPILED BY THE PARKS AND WILDLIFE  
DEPARTMENT'S NEWS SERVICE

## Quail Counts Vary Widely Across Texas Habitat

Irregular rainfall patterns across Texas during the spring and summer have resulted in equally irregular quail populations for the hunting season.

Don Wilson, quail program leader for the Texas Parks and Wildlife Department, said prospects range from excellent to poor, depending on location, for the season which opened on October 29 and runs through February 26.

"Our annual quail lines showed wide variations in numbers of quail from county to county and even different areas within a county," Wilson said. Overall, hunters can be fairly certain that quail numbers in most areas will not be as high as the bumper crop of 1987-88. "Last year was one of the all-time best for quail production, so we expected a dropoff this year," he said.

While the average quail population in most ecological areas is down, populations generally are comparable to the long-term average, Wilson noted.

In South Texas, the average count was 14 birds per mile, which is well below the 39 counted in the 1987 survey and below the long-term average of 20. However, counts in Zavala, Frio, LaSalle, McMullen, Jim Wells and Starr Counties rated as "excellent" compared to previous surveys.

The Cross Timbers of North Central Texas, which produced a whopping 34 birds per route in 1987, fell to an average of 15, which is roughly the long-term average. The Rolling Plains of West Texas and Eastern Panhandle dropped from 28 birds to 17.5, and the Trans-Pecos fell dramatically from 24 birds in 1987 to six in 1988.

Counts in the Edwards Plateau remained near the 1987 levels,

while the Gulf Prairies was the only ecological area sampled that showed an increase, growing from 9.5 birds per route in 1987 to 12 birds in 1988.

The statewide quail bag limit for 1988-89 is 15 per day, with a possession limit of 45.

## New Whitewing Tract Bought by TPWD

The Texas Parks and Wildlife Department has completed acquisition of a new white-winged dove habitat tract in Hidalgo County.

Ron George, dove program leader, said the 200-acre tract was purchased from the Taormina Co. of Donna, with revenue derived from sales of \$6 White-winged Dove Stamps which are required of all whitewing hunters in Texas.

The new tract, which will be designated the Taormina Unit of the Las Palomas Wildlife Management Area (WMA), is located four miles southeast of Donna and is close to several other department-owned whitewing tracts.

George said the Taormina Unit is mostly open pastureland that is reverting to native brush. Proposed management by the department includes reforestation, food plot establishment and wetland improvement. This management, designed primarily for whitewings, also will result in increased numbers of mourning doves, white-tipped doves, chachalacas, waterfowl, shorebirds and many forms of tropical and temperate wildlife including endangered species.

George said the Las Palomas WMA now includes 15 separate units totaling over 3,700 acres.

Persons interested in contributing to the TPWD White-winged Dove Program can do so by purchasing White-winged Dove Stamps or by making tax-deductible contributions directly to the program.



Ray Sasser

*Berneice Rose's 13-pound, seven-ounce largemouth bass from Lake Fork is the largest ever caught in Texas by a woman.*

## Grandmother Catches Whopper Bass at Lake Fork

Berneice Rose struck a blow for grandmothers everywhere during September by catching a 13-pound, seven-ounce largemouth bass at Lake Fork.

Texas Parks and Wildlife Department officials said the big bass is the largest ever caught in Texas by a woman, and it capped a two-week period during which she caught four bass over 10 pounds from the same East Texas reservoir. The TPWD does not maintain separate fish records for women.

Rose, a 56-year-old retired convenience store manager from Gilmer, said she had planned to release the big fish alive but later decided to lend it to the department's Tyler Fish Hatchery for study. The Tyler facility is headquarters for the agency's "Operation Share A Lone Star Lunker" program that uses lunkers lent

by anglers for spawning experiments. Rose's fish is not an official entry in the program, which starts each year on January 1.

Rose said she has no secrets for her fishing success, although she takes her son James' advice to fish slowly and thoroughly. "I just don't get in a hurry when I'm fishing," she said. "I may park the boat and fish in one spot for two hours if I think it's a good spot." Her big catch hit a red and black colored plastic craw-worm, she said. The fish was 25½ inches long and 21 inches in girth.

## Beach Seining Program Enhances Fishery Knowledge

Texas Parks and Wildlife Department fishery crews spent considerable time last summer doing the back-breaking chore of dragging a 200-foot beach seine in the surf and then tagging

# Outdoor Roundup *Continued*

and releasing the fish they caught. Now they need the cooperation of sport fishermen.

Anglers should be on the lookout for the yellow plastic streamers that protrude from the belly of tagged fish. Spotted sea-trout were the most numerous species tagged in the surf seining operation, with about 200 released. Each year, Coastal Fisheries Branch personnel tag and release some 2,000 fish of several species.

Biologist Jerry Mambretti said making 100-foot sweeps with the long seine is a physically taxing job, especially for the person stationed on the gulf end of the seine. "It gets tough when the current is strong, and it's not unusual to step on a small shark or other creature," Mambretti said. "That keeps you alert."

Tag returns can provide much-needed information about the age, growth, movement and mortality of important sport fish such as seatrout. Anyone catching a tagged fish is encouraged to remove the tag and return it to a TPWD office. Those returning tags are eligible for rewards of \$1 to \$25, funded by the Gulf Coast Conservation Association. The cooperating angler also receives a letter that contains all known information about the fish's origin.

## State Park System Observes 65th Birthday

Texas' state park system was born 65 years ago this year, resulting ironically from a gift that could not be accepted.

Mrs. Isabella Neff, mother of Governor Pat Neff, offered to deed a six-acre tract of land on the banks of the Leon River to the state for recreational, fraternal, political and educational gatherings. It was to be open to the public. Governor Neff, however, discovered that Texas had no state park system, and no department of the state had authority to hold title to parklands for the general public's use.

At the governor's behest, the Texas Legislature in 1923

adopted legislation creating the State of Texas Parks Board for the purpose of "initiating a movement looking to the establishment eventually of a system of State Parks for the benefit of the people."

Another irony of the state park system's early days was that the depression era of the early 1930s was a period of major construction and growth. Crews of the Civilian Conservation Corps built scores of buildings and other structures in state parks—structures still in use today.

By 1958 the Parks Board managed 58 parks, but the system was underfunded. Legislative appropriations, bond programs, a tax on sales of cigarettes and the merging of the Parks Board with the Game and Fish Commission all contributed to subsequent growth of the park system.

## Newly Opened Reservoir Has Veteran Broodfish

A new reservoir in North Central Texas recently opened to bank fishermen has been stocked with 78 of the Texas Parks and Wildlife Department's largemouth bass veteran brooders.

U.S. Army Corps of Engineers officials are now allowing anglers to fish the new Ray Roberts Reservoir in Denton, Cooke and Grayson Counties. However, only bank fishing and fishing from non-motorized boats is allowed.

TPWD officials said the Veteran Broodfish program involves tagging surplus hatchery brooders and releasing them in selected lakes. Anglers catching and releasing these fish can receive documentation of the fish's history by calling toll-free 1-800-792-1112 and reporting

*Many sportsmen are puzzled when they see dates for chachalaca season in their hunting guides. The birds are found in the Rio Grande Valley.*

the tag number. The telephone number was incorrect on the streamer of the fish stocked at Ray Roberts.

Bill Rutledge, hatchery chief, said the program is intended to give the new lake's bass population a spawning headstart, call attention to the department's hatchery program and promote the catch and release concept. The broodfish averaged one and a half pounds in weight when stocked 11 months ago, Rutledge said.

Bag and size limits for largemouth bass at Ray Roberts are the statewide five per day, 14-inch minimum length. However, the lake has a special 10-inch minimum length limit on crappie, with a daily bag limit of 25.

Also open to anglers on a bank-fishing-only format is the new Richland-Chambers Reservoir in Navarro County, but the new lake has impounded only a small amount of water and contains few if any fish of catchable size, officials said. Statewide limits on all sport fish are in effect at Richland-Chambers.

Some adjacent properties at both Ray Roberts and Richland-Chambers are included in the TPWD's Type II public hunting program. However, fishermen are not required to purchase a Type II hunting permit to fish either lake.

## Regulation Terms Sometimes Throw Sportsmen

When new hunting and fishing regulation guides roll off the press each year, they contain terms that are baffling to some beginning sportsmen.

For instance, hunters and fishermen often have difficulty with the term "in the aggregate." When used in game or fish bag limits, the term means a combination of species. For example, if a limit on bass is five largemouth, smallmouth and spotted bass in the aggregate, the fisherman is allowed to keep five bass of one species or a combination of the three species, as long as he retained a total of only five bass.

Bag limits and other information on game and fish regulations can be found in the Texas Parks and Wildlife Department's hunting and fishing guides, available at department offices and license outlets. All new regulations went into effect on September 1, 1988.

Here are some other terms that may be unclear to some sportsmen:

—RIMFIRE: The term "rimfire" and "centerfire" refer to two basic types of rifle or pistol cartridges. Centerfire cartridges have an observable primer that is centered in the base of the shell



Bill Reaves

casing. The gun discharges when the firing pin strikes the primer. In rimfire ammunition, the firing pin strikes anywhere on the end of the shell casing, causing an internal primer to discharge the round.

Rimfire ammunition is not legal for use in taking deer, antelope or elk because it usually is too low-velocity to be effective on big game.

**JET GUN**—This is another type of cartridge prohibited for use on big game. Jet guns and rocket guns use a self-propelled cartridge, rather than a casing and bullet configuration.

**CHACHALACA**—Relatively few Texans get an opportunity to see the elusive chachalaca, or “Mexican pheasant” of the Lower Rio Grande Valley. There is a hunting season, however, to give certain hardy individuals the opportunity to pursue these low-flying game birds through their brushy habitat.

**CIVET**—The term “civet” or “civet cat” refers to the spotted skunk. True civets are a European form of the skunk, but local custom still applies that appellation to spotted skunks, so the terminology has remained in the law book.

## Hunters Warned of New Hunting Rule in Mexico

Texas hunters planning to cross the border into Mexico to hunt should be aware of a new Mexican regulation requiring that all nonresident hunters be accompanied by hunting guides.

The regulation change was announced recently by Mexico’s Section of Ecology and Urban Development (SEDUE), according to the Texas Parks and Wildlife Department.

Violation of these regulations could result in fines up to \$35,000 in U.S. currency, the announcement said.

The department advises Texas hunters planning to hunt in Mexico to contact the SEDUE office in the Mexican state in which they plan to hunt.

## TPWD Acquires Dolan Creek Ranch in West Texas

Texas Parks and Wildlife Department officials have announced acquisition of the 11,000-acre Dolan Creek Ranch and adjoining properties beside the Devils River in Val Verde County, forming a new state natural area of almost 20,000 acres.

Called the Devils River State Natural Area, the site includes a mile of frontage on the Devils River which flows into Amistad Reservoir 30 river miles to the south.

The Val Verde County tract was the second major natural area acquisition announced by the department within a month. During July, the Parks and Wildlife Commission authorized purchase of the 215,000-acre Big Bend Ranch in Brewster and Presidio Counties just west of Big Bend National Park. It also is designated as a state natural area.

The Devils River site is located on the western edge of the Edwards Plateau and is considered a transitional zone between that ecological region on the east, the Trans-Pecos to the west, and the South Texas Plains to the south.

Officials said archaeological evidence suggests that cultural influences from the Trans-Pecos and Central Texas met at the Devils River, making it a crossroads of human prehistory. The site also contains significant resources to interest the botanist and zoologist.

The site was bought from the Finegan, Fawcett and Whitehead families of Del Rio. It remains closed to the public pending studies by the TPWD staff.

## Whitewing Season Was Less Than Spectacular

The two weekends of white-winged dove hunting in Texas’ Lower Rio Grande Valley proved to be subpar because of generally low numbers of birds, ac-



*The new state natural area includes frontage on the Devils River.*

cording to the Texas Parks and Wildlife Department.

Biologist Gary Waggerman said whitewing numbers were below last season, which also was not considered outstanding in terms of hunter participation or harvest.

Hunters on two TPWD wildlife management areas had fair shooting, however, especially on the Resaca de la Palma park site west of Brownsville in Cameron County. “During the first weekend (September 3 and 4) about 33 percent of the hunters bagged their 10-bird limit,” Waggerman said. “That’s pretty good hunting considering the number of birds in the Valley.”

Waggerman said hunter success was somewhat lower at the Penitas Unit west of McAllen in Hidalgo County. Hunting at both sites slowed considerably by the second weekend.

December in . . .

## TEXAS PARKS & WILDLIFE

As fly-fishing gains popularity, more and more people are becoming interested in the art of making artificial flies, or flytying. Flytiers use colors, shapes and textures to create objects that are pleasing to the human eye and tempting to the fish they wish to catch. In the December issue we’ll examine the art and science of flytying and offer some tips for people who are interested in pursuing the subject. Also next month are stories on the Freeport Christmas Bird Count, historic Fanthorp Inn, the playful lakes of the Panhandle and a photo story that will challenge readers to find the hidden whitetails.

# Texas Duck Stamps

Things are not going well with North American waterfowl. Many species are decreasing, hunting regulations are becoming more restrictive every year and hunter numbers are declining. All this is happening despite the fact that much is being done to preserve and develop wetland habitats in Texas and throughout North America.

## VITAL TO WATERFOWL HABITAT

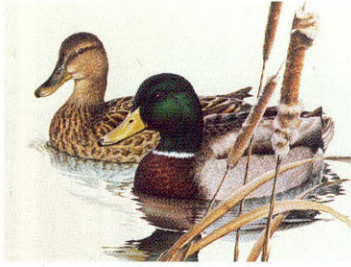
The decline in birds and number of hunters could have another, more far-reaching consequence—reduced revenue from duck stamps and prints. Money from the sale of such stamps and prints is the lifeblood of much work done with Texas waterfowl.

The Texas Duck Stamp and Print Program began in 1981, when the 67th Texas Legislature passed the Texas Wa-

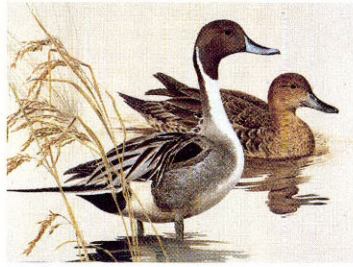
Leroy Williamson



*Bottomland hardwood forests of East Texas are among the important waterfowl habitats in Texas.*



1981 by LARRY HAYDEN



1982 by KEN CARLSON



1983 by MAYNARD REESE



1984 by DAVID A. MAASS



1985 by JOHN P. COWAN



1986 by HERB BOOTH



1987 by GARY MOSS



1988 by JOHN P. COWAN

No other state stamp series approaches the success of the Texas Duck Stamp and Print Program. With the finest names in wildlife art setting the standards, the Texas series will continue as the most widely collected of all.

## TEXAS DUCK STAMP & PRINT PROGRAM.

terfowl Stamp Act. This law dedicated the net receipts from sales of the \$5 Texas Duck Stamp—required of all waterfowl hunters—to waterfowl research, management and protection, and for the acquisition, lease or development of waterfowl habitats in Texas. Royalties from sale of reproductions of the stamp art also go toward such work.

In fact, the law states that no more than one-half of the receipts may be spent for research, management and protection. In practice, the Texas Parks and Wildlife Department has directed nearly all duck stamp/print revenues to wetland habitat preservation and development. During the first two years of the program's existence, revenue was accumulated to begin the complex business of wetland preservation.

The diverse wetlands of Texas pro-

vide winter habitats for many North American waterfowl. On average, three to five million waterfowl spend the winter in Texas wetlands. That represents about 50 percent of all waterfowl found in the Central Flyway during the winter, making Texas one of the most important wintering areas in North America.

The real waterfowl experts—the ducks and geese that use Texas wetlands—have set the direction of habitat acquisition and development. Annual winter waterfowl censuses show that the marshes and prairies of the Gulf Coast, especially the upper coast,

form the most important waterfowl wintering region in Texas. About 75 percent of the wintering waterfowl counted in Texas every year are found on the Gulf Coast.

The coast also is the breeding habitat of the native mottled duck and the black-bellied and fulvous whistling ducks. Other important waterfowl habitats in Texas include the bottomland hardwood forests of the eastern Pineywoods and north-central regions, and the playa lakes region of the Panhandle. The forested river bottoms of East Texas provide food (acorns and other nuts and fruits) and wetlands that are vital to migrant mallards and to both migrant and resident wood ducks.

The complex of playa lakes and grainfields in the Panhandle may winter more than two million waterfowl when rainfall puts water in the re-

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by **Dan W. Moulton, Ph.D.**  
Program Leader  
Waterfowl Habitat Acquisition  
and Development

gion's more than 19,000 playa basins in Texas. In addition, tens of thousands of mallards and other ducks may be produced in the Panhandle in years with favorable nesting conditions.

During the first six years of the duck stamp program, an average of some 133,000 duck stamps has been sold each year, providing an annual revenue of approximately \$589,000. Royalties from the sale of art prints have varied depending upon the popularity of the stamp art. So, the program's funding base, namely duck stamp and print sales, has provided annual revenues of almost \$1 million.



Grady Allen

*Pintails, the subject of the 1988 stamp, were one of the waterfowl species that suffered a poor production year. The result is a one-per-day bag limit.*

### DU MARSH PROGRAM

In 1985, another source of funds was made available to TPWD—the Ducks Unlimited MARSH program (Matching Aid to Restore States' Habitat). The MARSH program makes available to the department, on a 50/50 matching basis, 7.5 percent of the total contributions to Ducks Unlimited in Texas each year. Since 1985, MARSH has made available to the department approximately \$1 million for waterfowl habitat acquisition and develop-

ment. This includes more than \$138,000 that has been received on a no-match basis from Texas DU's Texas Wetlands Print Program since 1986.

The Parks and Wildlife Department and Ducks Unlimited have undertaken seven joint MARSH habitat development projects on wildlife management areas. MARSH projects vary in size and cost, but most are major development

projects involving the construction of shallow impoundments with water control structures for water-level management.

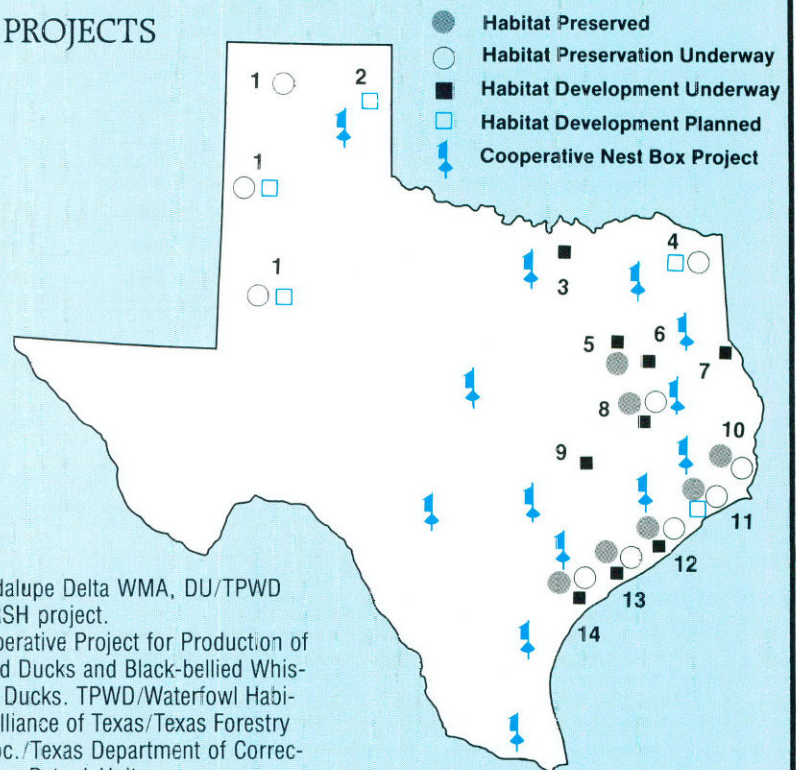
### LAND DONATIONS

Outright donations of land are important to any land acquisition program. The Internal Revenue Service makes such donations favorable for

### TPWD WATERFOWL HABITAT PROJECTS

1. Playa lakes research and demonstration areas.
2. Gene Howe WMA, future DU/TPWD MARSH project.
3. Ray Roberts Lake, Corps of Engineers, TPWD management.
4. Cooper Lake, Corps of Engineers, White Oak Creek mitigation tract, TPWD management.
5. Richland Creek WMA, DU/TPWD MARSH project.
6. Gus Engeling WMA, DU/TPWD MARSH project.
7. North Toledo Bend WMA, Sabine River Authority of Texas, TPWD management, DU/TPWD MARSH project.
8. Keechi Creek WMA, DU/TPWD MARSH project.
9. Somerville WMA, Corps of Engineers, TPWD management.
10. Lower Neches WMA
11. J. D. Murphree WMA
12. Peach Point WMA, DU/TPWD MARSH project.
13. Mad Island WMA, DU/TPWD MARSH project.

14. Guadalupe Delta WMA, DU/TPWD MARSH project.
- ▶ Cooperative Project for Production of Wood Ducks and Black-bellied Whistling Ducks. TPWD/Waterfowl Habitat Alliance of Texas/Texas Forestry Assoc./Texas Department of Corrections—Beto 1 Unit.



the donors. The Lower Neches Wildlife Management Area in Orange County consists of more than 3,700 acres donated to the department by private individuals. The Peach Point Wildlife Management Area in Brazoria County was acquired by the department from the Seadock Corp., through the Texas Nature Conservancy, at the bargain sale price of \$178 per acre. The difference between the sale price and the fair market value was a donation to the Texas Nature Conservancy and was used as a tax credit by the Seadock Corp. Such contributions have been vital in stretching program dollars.

### MITIGATION

The department also is involved in several developments to mitigate habitat losses on Corps of Engineers reservoir lands. In East Texas, the department has recently acquired bottomland hardwoods through mitigation. And the 13,760-acre Richland Creek Wildlife Management Area has been transferred in fee to the department to mitigate for wildlife habitat lost in the construction of Richland-Chambers Reservoir in Freestone and Navarro Counties.



*Nesting boxes for wood ducks and black-bellied whistling ducks are being provided free-of-charge to cooperating landowners.*

### Texas Duck Stamp/Print Program Revenues.

Stamp Year	No. Stamps Sold	Stamp Revenue	Art Print Royalty	Federal Aid Reimburse.	Ducks		Total Revenues
					Unlimited	MARSH	
1981	136,893	608,832	670,395	—	—	—	1,279,227
1982	139,985	554,877	350,000	—	—	—	904,877
1983	123,806	541,444	274,351	—	—	—	815,795
1984	137,994	544,101	334,922	1,331,082	227,841	—	2,437,946
1985	133,021	663,067	486,500	875,967	300,272	—	2,325,806
1986	125,434	622,188	318,200	1,159,628	249,816	—	2,349,633

### Waterfowl Habitat Acquisition with Duck Stamp Funds.

County	Wildlife Management Area	No. Tracts Acquired	Present Acreage	Land Cost
Calhoun	Guadalupe Delta	5	4,262.4	\$2,712,953
Brazoria	Peach Point	2	8,684.3	1,569,288+
Leon	Keechi Creek	1	1,500.2	1,113,166
Orange	Lower Neches	4	3,739.0	donations
Matagorda	Mad Island	1	5,700.0	1,852,500+
Jefferson	J. D. Murphree	1*	126.1	177,753
Totals:				
6	6	14	24,012.0	\$7,425,660

\*An addition to the 12,622-acre Murphree WMA  
+Bargain sales through the Texas Nature Conservancy

### NESTING BOXES

The Cooperative Project for Production of Wood Ducks and Black-bellied Whistling Ducks is providing nest boxes statewide to cooperating landowners free-of-charge. The TPWD is furnishing technical guidance and information, delivery and monitoring of boxes; the Waterfowl Habitat Alliance of Texas (WHAT Ducks) is providing 2,000 boxes a year for three years; lumber for the boxes comes from the Texas Forestry Association, and the inmates of the Texas Department of Corrections are building the nest boxes and predator guards.

### NORTH AMERICAN WATERFOWL MANAGEMENT PLAN

The Texas Parks and Wildlife Department also is actively engaged in furthering the North American Waterfowl Management Plan (NAWMP). This management plan is an unprecedented effort to help North American waterfowl by involving the United States and Canada (most states and provinces) and many private organiza-

tions. A grant of \$100,000 from the Waterfowl Stamp Fund was channeled through Ducks Unlimited to the Quill Lakes Joint Venture on the breeding grounds in Saskatchewan, Canada. The Parks and Wildlife Department is currently involved in three NAWMP Joint Ventures within Texas—the Lower Mississippi Delta (East Texas bottomland hardwoods), the Gulf Coast and the Playa Lakes Joint Ventures.

Whether you hunt waterfowl with a gun or a camera, you can help make a difference in preserving and developing wetland habitats within the state by purchasing Texas Duck Stamps and art prints. These beautiful prints make excellent Christmas gifts for sportsmen and conservationists. For art print information, contact Collectors Covey, P.O. Box 57306, Dallas, Texas 75207, 214-630-4981. Or, you may send a tax-deductible donation to the Waterfowl Habitat Fund, Texas Parks and Wildlife Department, 4200 Smith School Road, Austin, Texas 78744. You can be assured that the money will be used to preserve wetlands or to improve the ability of protected wetlands to support wetland-dependent wildlife. \*\*



# THE BIZARRE WORLD OF

Text and photos by Paul Montgomery

**N**o one knows for sure how many different kinds of fungi grow in Texas. However, with several thousand species in the United States and Canada, it seems safe to say that Texas, because of its geographic and climatic diversity, must have a large number of species.

We have examples of all the major types: gill, tube, teeth and bracket fungi; coral and jelly fungi, earthstars, puffballs, bird's nest fungi and slime molds. These fantastic and often beautiful creations of nature can be discovered throughout the year in Texas, but they are most noticeable in the spring and fall. They thrive on moisture, and during wet weather they can appear anywhere.

And anywhere can literally mean anywhere. While most fungi are commonly found on lawns, in peat bogs, meadows and forests, they also can grow in gravel, cracked asphalt, sand or even on rugs in dimly lit living rooms. Still other species exist only on wood, cow or horse dung, or on the trunks of particular species of trees.



*Jelly fungi growing on a dead oak tree (right) provide a study in colors and textures. Above is the unusual earth star fungus.*



# THE *Fungi*





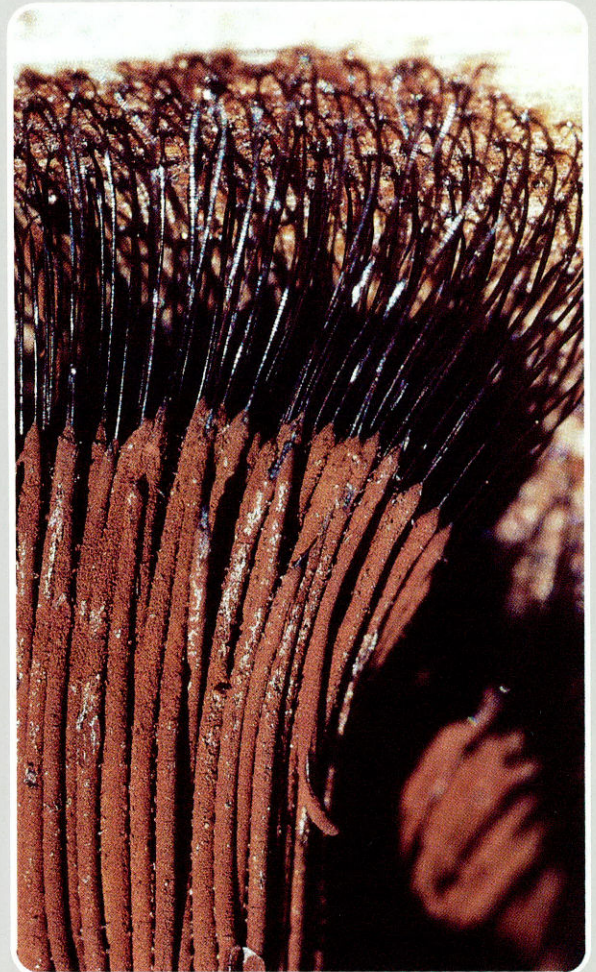
*These yellow jelly fungi are also known as yellow witches' butter.*

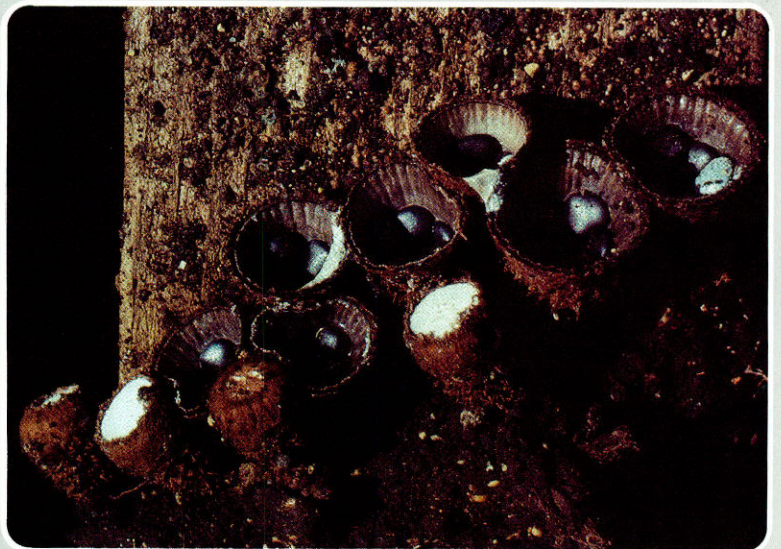
The reasons that people like fungi are almost as varied as the fungi themselves. Some see them as spectacular curiosities of nature simply to be enjoyed, while others seek them out for their culinary qualities. Still others, like myself, enjoy the challenge they present as photographic subjects. With such bizarre shapes and beautiful colors, they often remind me of submerged sea life and provide opportunities to capture such images far from the underwater world.

Because of the large variety of our Texas fungi, identification is not always easy. I am no authority, so the photographs here have been labeled only as to general type. While there are a few common species that are easily recognizable, there are many more that can be identified only by experts. If you are interested in finding edible fungi, identification by an expert is essential since there are poisonous species. Proper identification cannot be overemphasized.



*Two species of gilled fungi were found growing together (above). At right are tube fungi, and at far right is chocolate tube slime mold.*

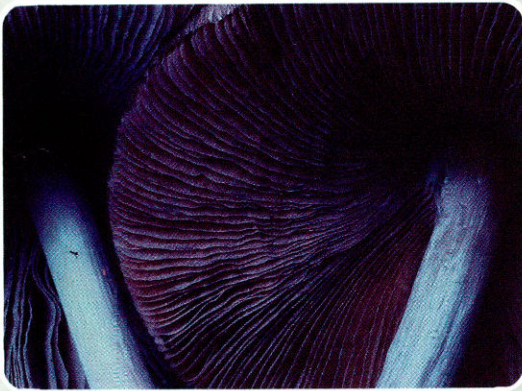




*Bear's head tooth fungi (left), bird's nest fungi (above) and small gilled fungi (top) illustrate the variety found in Texas.*



*Above, tube or pore fungi; below, gilled fungi.*



*This large cluster of gilled fungi was found growing at the base of a cypress tree.*

**F**ungi reproduce by releasing spores, in contrast to flowering plants that reproduce by releasing seeds into the environment. And unlike green plants, fungi lack the green pigment in their cells called chlorophyll. Because of this absence of chlorophyll, fungi cannot produce their own food and must rely upon other sources for their development and growth.

Fungi hasten decomposition of dead plant material, but their relationship to living plants is still not fully understood. It is known that vascular plants grow by absorbing three very important minerals from the soil: phosphorus, potassium and nitrogen. When these substances are absorbed, they become complex compounds that the plant uses in the development of its stems, roots, leaves and flowers. When a branch, leaf, or stem falls from a plant, or when the entire plant dies, these compounds are still intact.

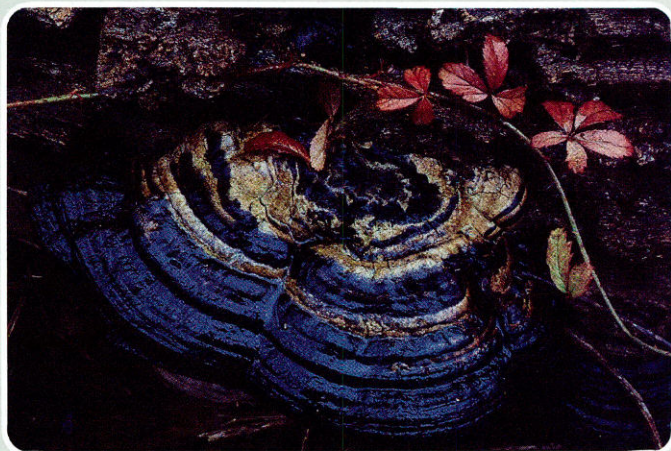




*Above is an example of bracket or shelf fungi.*



*The crustlike fungi at left were found on the underside of a log. Bracket or shelf fungi grow on tree trunks (above) and decaying logs (below).*



**T**his is when fungi play a vital role. While feeding upon dead plant material, fungi break these compounds down into simple chemical substances. As these substances spread through the soil by rainfall, living plants take them up through their roots to help develop new stems, roots, leaves and flowers once again. This remarkable movement of chemicals is a circular one and, without fungi, the available reserves of phosphorus, potassium and nitrogen in the soil would be seriously diminished.

So the next time you find yourself hiking through the steamy forests of East Texas or the arid mountains of the west, and you see decaying wood or fallen leaves, remember that a process is ongoing that you cannot see. Hidden within the wood or under the leaves are many different fungi and they are working to break down chemical substances so that other plants may live. Mysterious and often beautiful, they are diminutive, yet powerful and vital to our world's ecosystem. \*\*

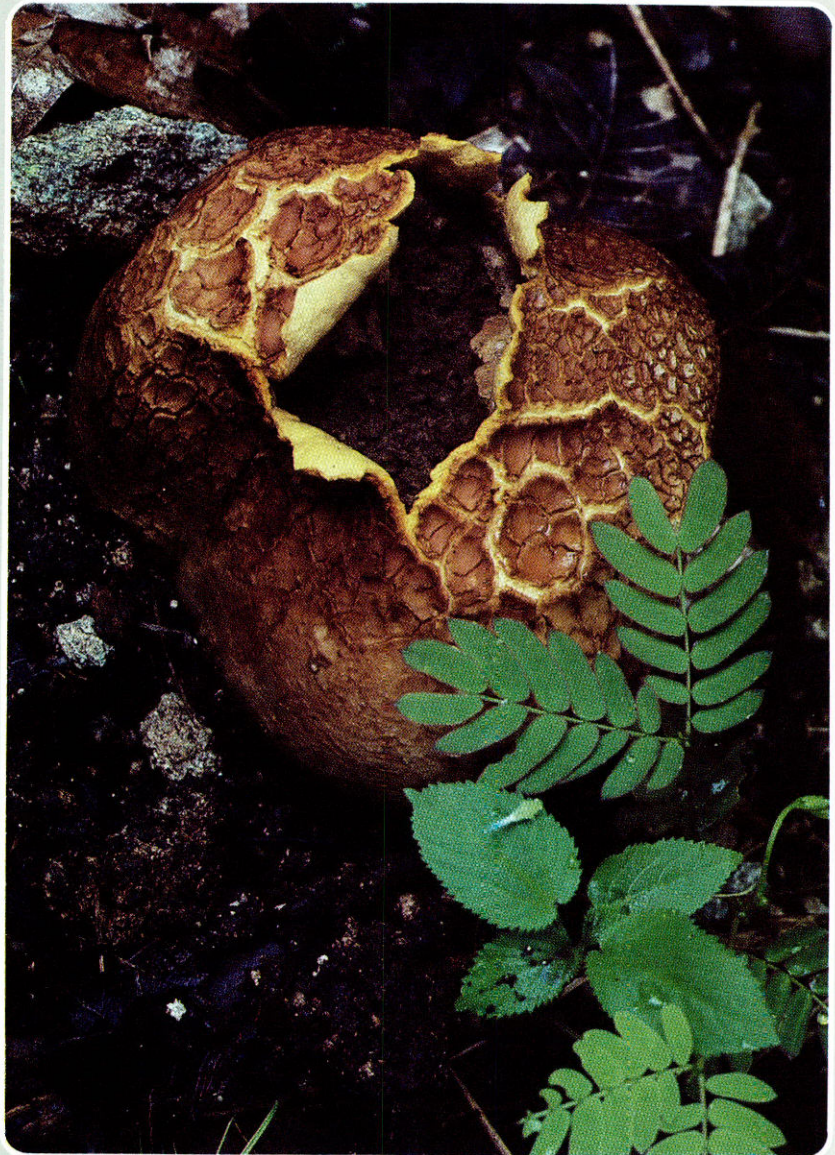


*The two photos above illustrate the different shapes and sizes of gilled fungi. At left are bracket or shelf fungi on a dead log.*



*Below is an example of the fungi known as puffballs. Above, more winter mushrooms.*

*The gilled fungi known as winter mushrooms (below) are found in spring and fall. The gilled fungi above emerged after a heavy rain.*





# OPERATION

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# ORPHANS

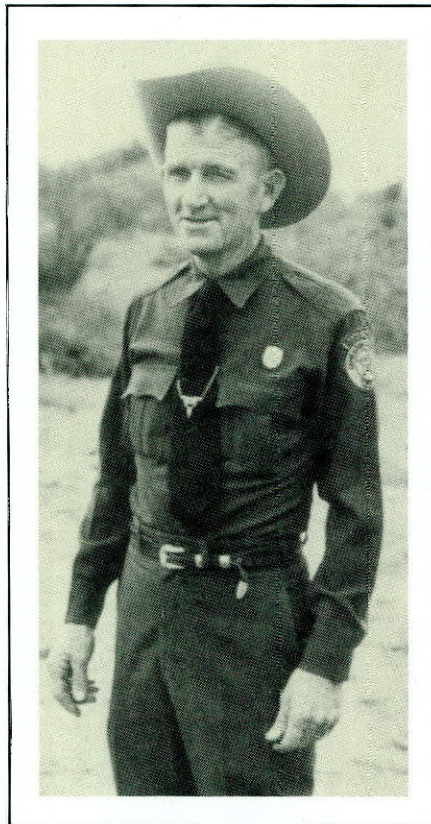
Article by A. Gayland Moore, Photos by Glen Mills

A bronze plaque at the camp entrance reads, "This plaque was erected in honor of Gene Ashby who founded this camp for young boys who might otherwise never have known the outdoors." The program is Operation Orphans; the place is Camp Gene Ashby on the banks of the Llano River near Mason.

In Mason County, as in most Hill Country counties in November, hundreds of deer hunters head for their prime, expensive deer leases to bag some of the thousands of available deer. Experienced deer hunters, however, aren't the only ones excited about going to Mason County in November. For the past 27 seasons, the hills in Mason and surrounding counties have come alive with the sights and sounds of orphans and underprivileged youngsters, many of whom are hunting for the first time.

It all started in 1960 when Gene Ashby, an Austin game warden, real-

*To help reduce the excessive deer population in Mason County in 1960, Austin game warden Gene Ashby (right) encouraged several local ranchers to let underprivileged children hunt antlerless deer on their private ranch lands (left). The result was Operation Orphans, Inc., which begins its 28th hunting season on November 19.*



ized that Mason County had an excessive deer population. Thousands of antlerless deer needed to be removed from the overgrazed range. To help solve the problem, Ashby approached a group of Mason County ranchers with the idea of letting underprivileged children hunt antlerless deer on private ranch lands.

The ranchers liked the idea, as did the Mason Chamber of Commerce. The result was Operation Orphans, Inc., a non-profit corporation dedicated to unlocking the door which often prevents underprivileged youngsters from enjoying the thrills of hunting. Through the 1987–88 hunting season, more than 9,500 youngsters have harvested more than 8,000 animals. That's approximately 360,000 pounds of meat.

Although the first hunt in 1960 was a little hectic, it proved to be successful. The only major problem was finding a place for the children to spend the night. Land was needed to provide the youngsters a place to have their own deer camp. This soon became a reality

when several concerned individuals along with the Sportsman's Clubs of Texas helped Operation Orphans purchase a 320-acre tract of land near Mason. The landowner sold the property for \$105 an acre, \$30 per acre less than the market value of the land in 1961.

Other financial donations provided for the construction of a 42-foot by 86-foot bunkhouse capable of housing 100 orphans. Ashby died in 1977, but numerous buildings have since been added to the camp which bears his name, including a 50-foot by 100-foot kitchen/dining/storage facility, bunkhouse/recreation hall, counselors' quarters and supervisor's residence. Once the camp had been completed, the organization needed places for the youngsters to hunt. This problem was settled the same way it has been settled for 28 years; several ranchers opened their land to the orphans, while other county residents provided vehicles, guns and guides.

The Operation Orphans' Board of



Trustees, with the help of many interested individuals and groups, has continued to improve the camp in an effort to make it enjoyable for generations to come. At present, Camp Gene Ashby is capable of housing and feeding 200 youngsters.

During the first 20 years of Operation Orphans, only boys were allowed to hunt; a girls' hunt, however, was added to the program in 1980, and an exotic wildlife hunt was added in 1982. The girls' hunt usually is held on

Thanksgiving weekend while the exotic hunt traditionally has been held on the last Saturday in January.

The 1987-88 deer season for Operation Orphans was another success, as 509 underprivileged children from approximately 70 children's homes participated in the five Saturday hunts. The first hunt was held on November 21, with chilly temperatures of 38 degrees greeting the 113 boys on that Saturday morning. Before the sun had set on that crisp Novem-



*Operation Orphan volunteers and hunting guides are not allowed to hunt themselves; their reward comes from teaching hunter safety (right) and outdoor ethics to youngsters, along with helping a boy or girl shoot an antlerless deer or two (top). Above, a hunting guide shows an eager young hunter a buck rub while they wait for a doe to appear. Through the 1987-88 hunting season, more than 9,500 youngsters have harvested more than 8,000 animals in the Operation Orphans program.*



ber day they harvested 145 deer and one hog.

Subsequent Operation Orphan hunts were equally successful. Camp Gene Ashby hosted 55 girls on Thanksgiving weekend; they proved to be good hunters and harvested 52 deer. On Saturday, December 5, 127 boys took 134 animals. New Operation Orphans records were set December 12, when 130 boys harvested 271 deer.

Good behavior by the boys and their respective homes often earns them an invitation back to Camp Gene Ashby for the Operation Orphans' exotic hunt. Last season, 85 boys from 10 children's homes within Texas participated in the exotic hunt, which resulted in 98 animals being harvested. The harvested species included aoudads, black bucks, Corsican rams, mouflon, ibex, fallow deer, feral hogs, Barbados sheep and axis deer.

None of the meat is wasted. The boys or girls return to their particular children's home with whatever they harvest. "The kids not only have the thrill of a successful deer hunt, but they have the additional satisfaction of knowing that they contributed to their home's food supply for the year," said



Jim Pond, vice president of Operation Orphans.

What are the rewards for the hundreds of volunteers and guides that offer their time each year to the Operation Orphan hunts? Guides are not allowed to hunt themselves; their reward comes from teaching hunting safety and outdoor ethics to youngsters, along with helping a boy or girl shoot a deer or two.

"If you make it out here one time, chances are you will want to come back every year," said Pond. "It's just

*The 1987-88 deer hunting season saw 509 under-privileged youngsters from approximately 70 children's homes participate in Operation Orphans hunts. On Thanksgiving weekend, 55 girls harvested 52 deer during the Saturday girls' hunt (above). Two weeks later on December 12, new Operation Orphans records were set, as 130 boys harvested 271 deer.*



such a joy to see these kids experiencing hunting and the great outdoors for the first time, and before the weekend is over, you find yourself very attached to the youngster you hunted with all day on Saturday. It's a feeling that you have to experience to appreciate."

The exotic hunt on January 30, 1988, was the first time Llano County ranch owner Bobby Najar worked with Operation Orphans as a guide, but he was quick to say that, "If they ask me to help next season, I'll gladly do it again. The boy I had hunting with me was very polite, eager to hunt and was a good listener," said Najar. "We had a great time; I can hardly wait to do it again next year."

The kids and their homes hope there's a next year, too. Operation Orphans is entering its 28th season with several needs because the slumping Texas economy of 1986-88 has slowed the flow of donations of vital equipment and supplies. "Our corporate donations have been drying up over the past two or three years," said coordinator Tom Hewitt of San Antonio. Donations are essential because Operation Orphans receives no state or federal funds; the organization exists solely through the generosity of others.

The need list includes food, clothing, building materials, bunk beds, machinery, hand tools, rifle ammunition and, of course, funds. Also needed are volunteer guides for the season's hunts, feed and minerals for the animals under high fence at the camp, ranches for the scheduled hunts and other organizations who are willing to pay to use Camp Gene Ashby during the off season.

In the clothing category, Operation Orphans needs warm shirts, pants, jackets, caps, gloves and boots. "We used to get all of the seconds we needed from boot manufacturers," said Mike Dail, hunt organizer. "But, now the manufacturers are selling their seconds." The youngsters, who range in age from 8 to 18, are fitted with clothing, boots and hats when they arrive, and they take home their hunting clothes with them when they leave camp.

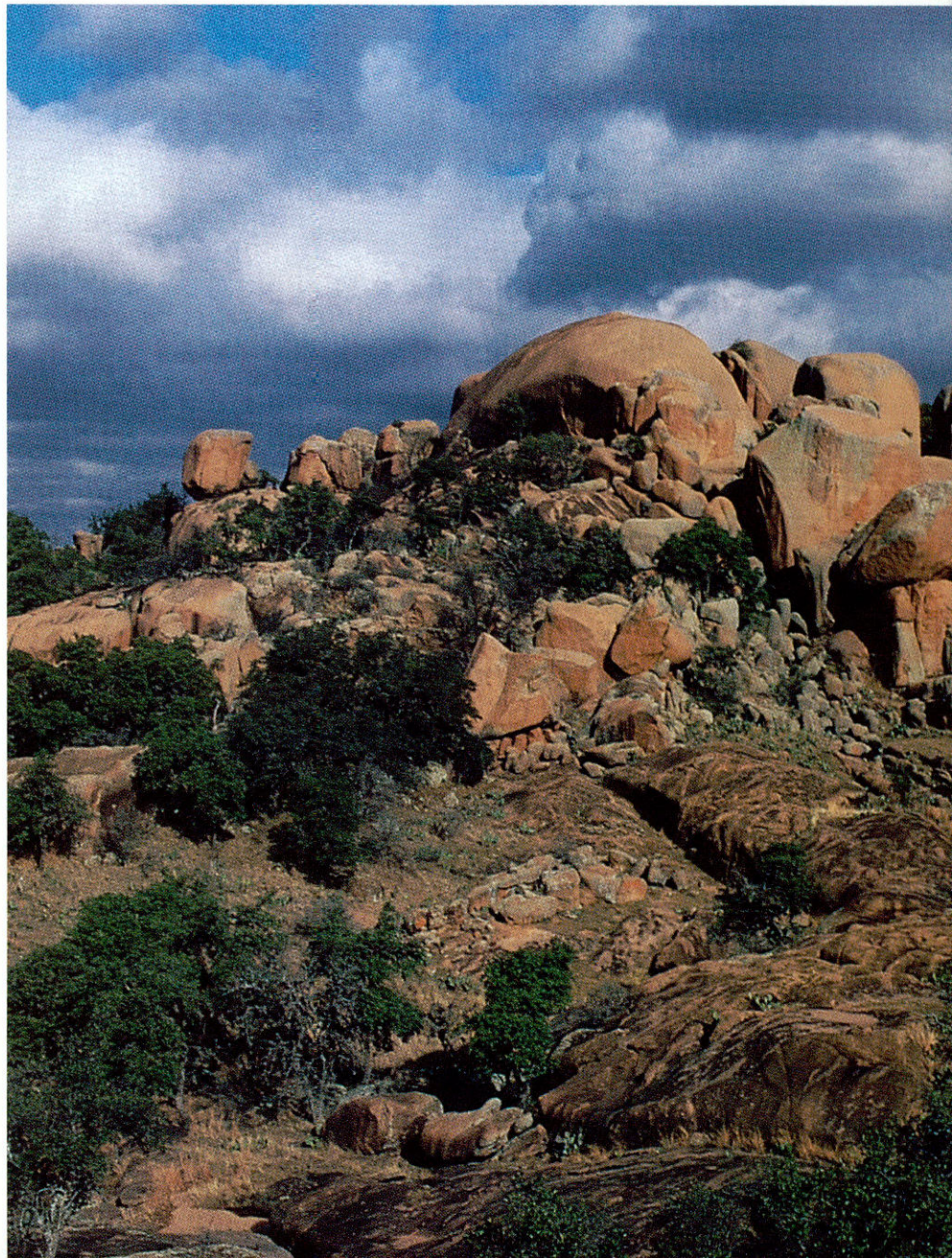
Guide chairman Jim Pond of Fort Worth tells the story of the 12-year-old boy who went into the clothing and boot storeroom in December 1968 and picked out a whole box of clothes,

boots and jackets. "We didn't know what to tell him," said Pond. "Even though he might have needed all of those clothes, we had to tell him that he could only take two shirts and one of everything else in order for all of the other boys to have an opportunity to select some of their own. When we approached him about his box of clothes, he answered with an explanation that broke our hearts.

"The boy looked up with his teary eyes and said, 'I was just picking out some shirts and boots for those boys back at the home who didn't get a chance to come. This box was going to be all of my Christmas presents to them. Is that okay?' he asked. Needless to say, we let him take his box back to his friends for Christmas," said Pond.

The faces of the boys and girls who arrive on buses and vans at Camp Gene Ashby each November, December and January often change, but the reasons they are there remain the same. Although there are several bona-fide orphans who participate in the Operation Orphans program, most of the children are the victims of broken homes, abandonment, cruelty, poverty and a host of other family tragedies.

No matter the cause, volunteers and guides who have taken the time to participate in the Operation Orphans program have come to understand the quote that is printed on the back cover of the organization's brochure: "No man stands so tall as when he stoops to help a boy." \*\*



If you would like to volunteer your land, time or goods to Operation Orphans for the 1988-89 season, here are the people to contact:

Ranch land \_\_\_\_\_

Call hunt chairman Mike Dail at 915-347-6653, or Ted Smith at 915-347-6659.

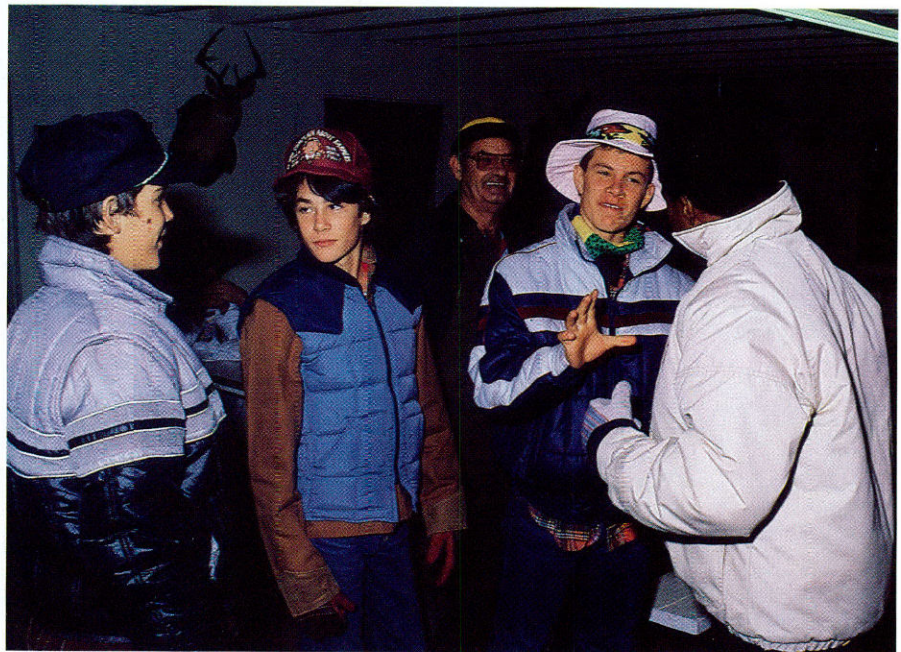
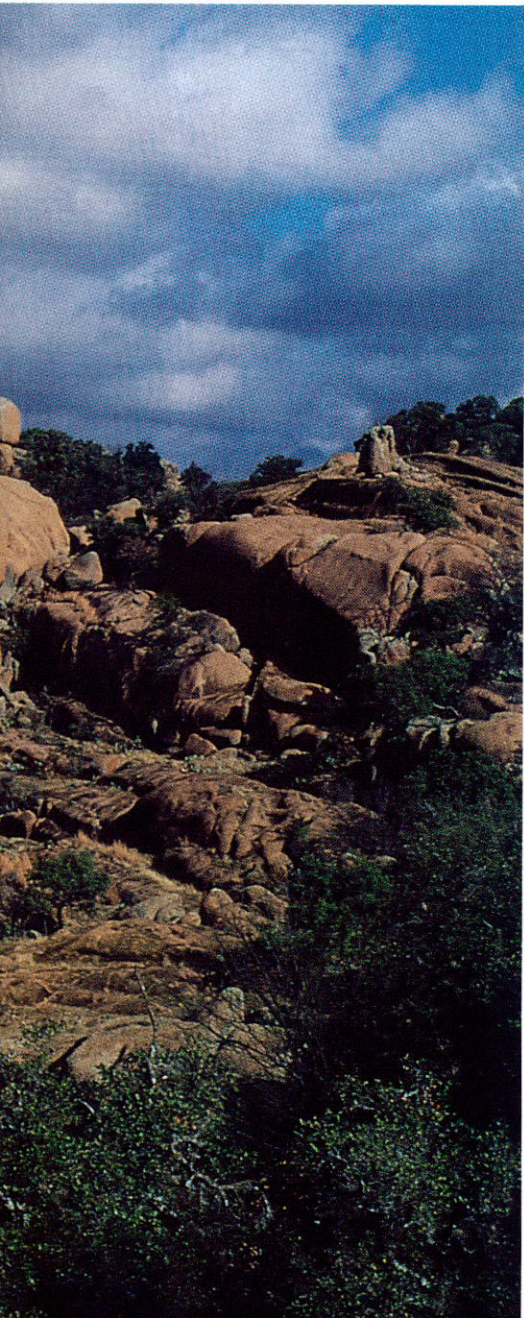
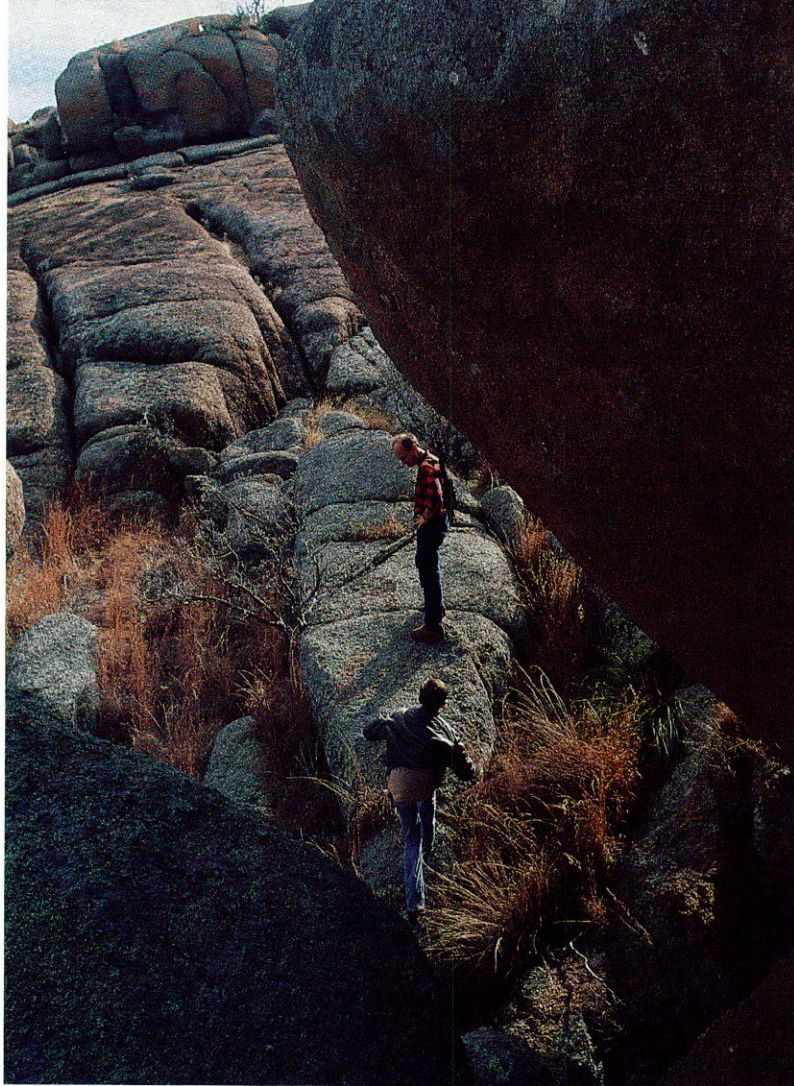
Hunt guides \_\_\_\_\_

Call Jim Pond of Fort Worth at 817-626-0200.

Equipment and supplies \_\_\_\_\_

Call Tom Hewitt of San Antonio at 512-732-6211 or 1-800-292-5073; or Ted Smith at 915-347-6659.

Whitetail hunts this year are scheduled for November 19, November 26, December 3 and December 10. The November 26 hunt will be for girls only. Guides for the girls hunt are married couples. The exotic hunt for boys will be held January 28, 1989.



*For the past 27 years, the hills in Mason and surrounding counties (left) have come alive with the sights and sounds of orphans and underprivileged children (top), many of whom are hunting for the first time. The youngsters, who range in age from 8 to 18, are fitted with winter clothing, boots and hats when they arrive (above), at Camp Gene Ashby.*

## Winging It

**T**he human body was never designed to fly. Although our desire to be airborne has led us to invent machines that can take us faster and higher than any flying creature, we will never be able to get off the ground on our own. Our bodies are too heavy and unstreamlined, and the muscles that control the bones of our hands and arms cannot lift us into the air.

Flying animals and nonflying animals have muscles in different places. Since walking is our primary means of locomotion, our largest muscles are in our legs. If we develop our arm and shoulder muscles we can grip an overhead object, such as a chinning bar, and lift our bodies from the ground. However, this takes a lot of effort and, depending on the strength of the individual, can be done only a few times. Doing push-ups will lift most of your body away from the ground, but to do push-ups you must position your hands and arms close to your body. If your arms were extended during a push-up the way a bird's are for lift-off, you probably couldn't lift your body at all, and you certainly couldn't fly.

In a bird, large outside breast muscles are attached to the underside of the upper arm bones. These large muscles pull the wings down. An inner set of breast muscles is attached to the top side of the upper arm bones to pull the wings up. The other ends of both sets of breast muscles are attached to the breastbone. The depth (keel) of this breastbone varies with the bird species and is a good indicator of the flying power of the bird. The deeper the keel, the more wing muscles the bird probably has.

Nonflying birds normally do not

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by Ilo Hiller

have large keels or greatly developed breast muscles. The ostrich, which walks rather than flies, has its main muscles in its legs as humans do. And speaking of humans, it is estimated that a person weighing 150 pounds would need to have a breastbone keel projecting outward six feet to accommodate muscles large enough to operate wings and fly.

Let's take a look inside the wings of three very different flyers—a reptile, a mammal and a bird—and compare the bone structure of their wings with our arms and hands.

Going back more than 65 million years to the time of the dinosaurs, we discover one of the first flyers—a large, winged reptile called the pterodactyl (tair-ah-DACK-til).

For years, scientists have disagreed over whether pterodactyls could actually flap their huge wings up and down in flight or whether they used their wings primarily for soaring and gliding. Since humans weren't around when pterodactyls lived on the earth, this argument can never be settled. You will just have to decide for yourself whether you believe these creatures were able to take a little hop and, by using a strong wing stroke, become airborne; or whether they had to climb to a high spot, take off in a glide and catch rising air currents to stay in the air.

Paleontologists (those who study fossils) tell us that pterodactyls had no feathers. They were true members of the reptile family, but their bodies were covered with a furlike substance

and they flew on leathery, batlike wings. Most of the fossilized pterodactyl bones that have been found by paleontologists came from specimens with wingspans of 20 to 25 feet; however, during the 1970s a 21-inch pterodactyl upper arm bone was discovered in Big Bend National Park. It is estimated that this giant reptile had a wingspan of about 51 feet.

In the illustration you can see that the pterodactyl's "hand" is attached to its upper and lower arm bones. Its "thumb" and three of its "fingers" are not enclosed in the wing. The top edge of the wing is attached to the long bones of its fourth "finger." Fossilized tracks indicate that when pterodactyls were on the ground they walked on their feet and used their wing hands as front feet, probably scuttling along the way bats do today. The tips of the wings were probably folded back over the body out of the way. The clawlike hands on each wing also may have been used batlike when climbing and possibly could have been used for hanging when resting or sleeping.

Flying reptiles disappeared about the time flying mammals (bats) appeared on the scene. Fossil records show that bats have changed very little during the last 50 million years. In fact, one 40-million-year-old fossil belongs to the same genus as the European horseshoe bat.

There are several distinct species of bats in the world today, but their wings all follow the same general plan of construction. Unlike the "hand" of the pterodactyl, only the "thumb" of the bat is not enclosed in the wing. The bat uses this clawlike thumb for clinging to branches or the rocky walls of



*The bones of this roseate spoonbill's wings are almost visible through the bird's skin. Muscles attached to the breastbone move the wings up and down.*

caves, and for grooming. Bats also scuttle around on the ground by using their "wrists" as front feet.

The bat's long "finger" bones are enclosed in the thin layer of skin that forms the wing membrane, and they give it support by extending from the front edge to the back. The wing membrane has about ten times the surface area of the bat's head and body, and it contains a network of small blood vessels and nerves. The wing is attached to the hind leg for additional support, and some species of bats also have another membrane stretched between their hind legs.

The real work of flying is handled by large muscles attached to the upper arm bone and shoulder blade. With the exception of the small ones that

extend to the fingers and are used to spread and fold the wings, muscles are not found in the bat's wings. The wing is merely skin and bone held together by ligaments and tendons. Fine hairs grow on the upper and lower surfaces of the skin.

Unlike the rigid wings of an airplane, the living wing of the bat must provide both lift and forward thrust, and be able to handle turns in all directions. It must be able to change shape for landings, takeoffs and different species, and fold out of the way when not being used for flying.

When the bat's wing is folded close to its body, the membrane does not form large flaps or pleats, as a piece of cloth would do. Instead, the wing's surface is composed of hundreds of

tiny, crescent-shaped pockets that fold individually like the petals of a flower. The wing seems to shrink as it is folded and it takes up very little space.

At the time prehistoric bats appeared, prehistoric birds had been around for millions of years. From its fossil remains scientists recognize the Archaeopteryx (ar-kee-OP-te-ricks) as being the first bird—a possible link between reptiles and the many different kinds of birds that would follow. This prehistoric bird, which lived about 140 million years ago, was no larger than a crow or pigeon, had heavy bones that looked like those of a reptile, a long beaklike face (no horny bill) with sharp, conical, lizardlike teeth. Scientists believe it was more of a glider than a flyer, climbing trees to get altitude and relying on air currents to stay aloft.

There are only two known skeletons of the Archaeopteryx and these bones and feather impressions are preserved in limestone. From them, we have discovered that this prehistoric bird had short wings with primary and secondary feathers arranged much as they are in modern birds. However, the hand bones were separate and the digits free. It had three fingers equipped with claws. Its long lizardlike tail was composed of 23 separate vertebrae with a pair of feathers springing from each one. (Modern birds' tail feathers spring from a triangular bony plate at the end of their short rudimentary tails.)

As birds evolved from the Archaeopteryx, many of them developed incredible flying ability. Some can fly more than 2,000 miles nonstop across the ocean while others can glide for hours on air currents without flapping their wings. Birds can glide, soar, dive, brake, turn and bank. Some not only fly forward, but also stop, hover and fly backwards.

When we compare the structure of the bird's wing to the human arm and hand, we find they are very similar except in the hand area. The human hand with its dexterous fingers evolved into a structure that can make and use complicated tools and accomplish intricate tasks. A bird's hand is

Bill Reaves



# Young Naturalist

less complicated. Many of the bones have disappeared and others have lengthened and fused together. Fewer bones makes the wing "hand" less flexible than our hand, but the fused bones are more rigid and stronger.

This added strength is needed since the outer section of the wing is where the greatest strains occur during flight. The section of wing between the shoulder and wrist moves very little during flight.

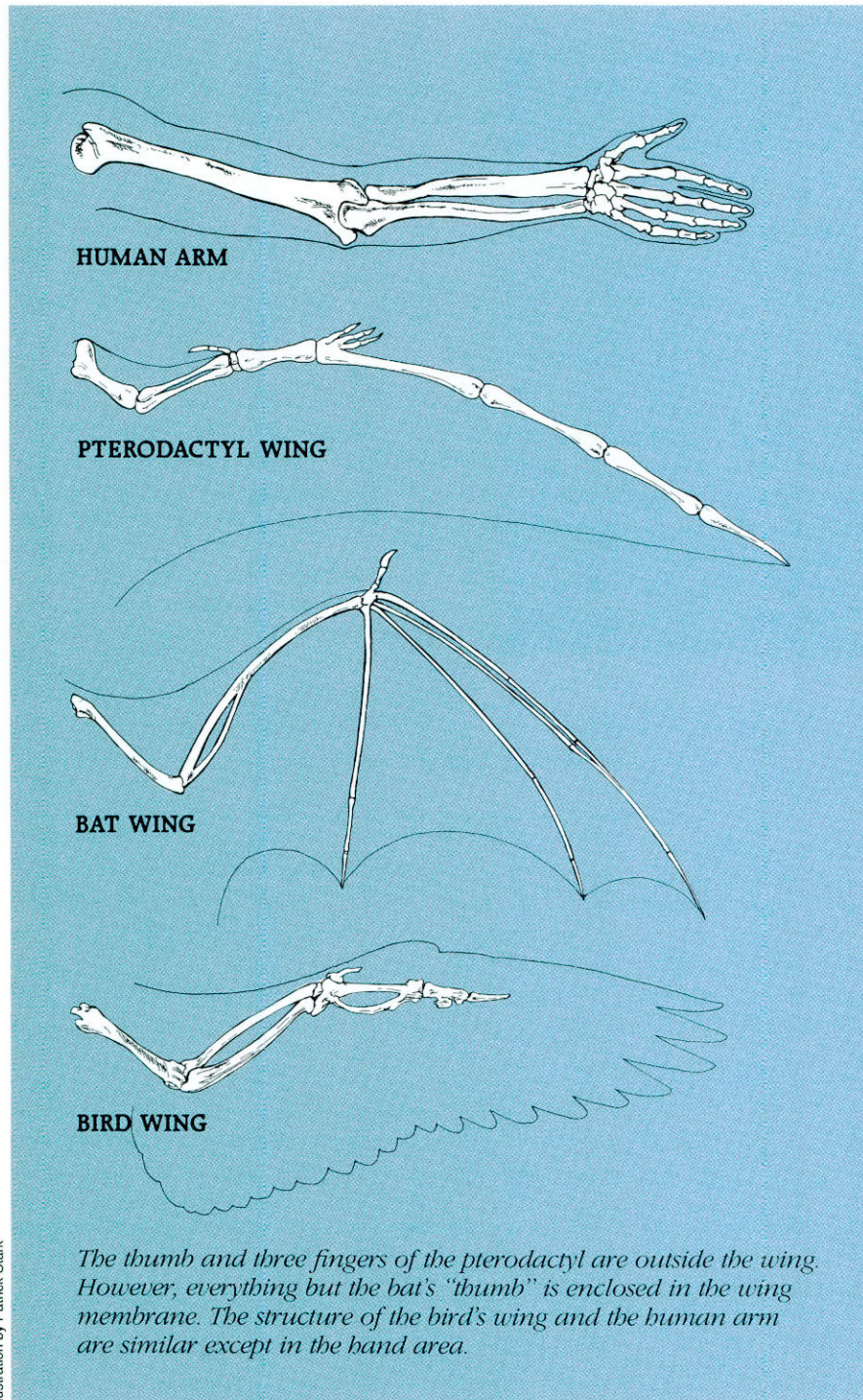
Wing joints in the bird are designed to help withstand the strain of flight. The "wrist" is joined together so the hand section is in proper alignment with the rest of the wing, and it does not rotate as ours does. Since the "elbow" cannot bend in the direction that receives the greatest stress during flight, there is no need for special muscles to hold the wing stiff. The "shoulder joint" also is shaped to hold the wing at the proper angle for the most effective lift for flight. These three joints also fold the wing sections into a tight "Z" against the side of the bird's body.

Although all wings are basically the same, they do have different shapes and flight characteristics, and a bird's life style is tied in with its wings. Ground birds, such as quails and pheasants, have short, rounded wings that allow them to make almost vertical takeoffs and quick escapes. Open-country speedsters, such as swallows and swifts, dart about on narrow swept-back wings. Eagles and other large soaring birds have long, broad wings.

If humans had understood in the beginning that a bird does not fly merely by flapping its wings up and down, the secret of flight might have been discovered long before it was. The first attempts with wax and feather wings, paddles and various other contraptions strapped on the arms were failures. Inventors also could have skipped the first flying machines with mechanical wings that flapped up and down and were powered by human muscle. Real flight became possible when humans learned the principles of aerodynamics—a moving stream of air passing over the wing produces lift, and changing the angle of the wing increases lift.

A plane can change the angle of its wing by lowering flaps along the trailing edge of the wings. A bird does it by changing the angle of its entire wing.

Skin and feathers cover the wings. Small feathers called coverts streamline the wing and serve as protection. Primary and secondary flight feathers make up the sail area needed to stay airborne. On the first powerful stroke



*The thumb and three fingers of the pterodactyl are outside the wing. However, everything but the bat's "thumb" is enclosed in the wing membrane. The structure of the bird's wing and the human arm are similar except in the hand area.*



Bill Reaves

Large soaring birds such as this turkey vulture have long, broad wings. Turkey vultures can glide for hours on air currents without flapping their wings.

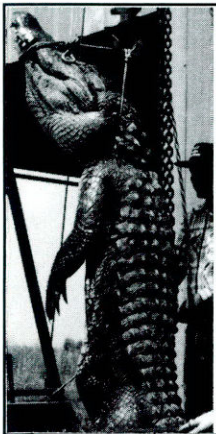
of the wing, the broadside of the primary feathers (those attached to the "hand") bite the air at an angle, driving it forward. On the upstroke, the wings bend and the primaries open like louvers to lessen air resistance while the rearward flip of the wings add another forward thrust. With several such strokes, the bird is on its way. Once airborne, the effort is dimin-

ished since most of the lift is provided by the shape of the wing. Air flowing over the curved upper surface travels faster than air passing beneath the flat undersurface. This creates an area of low pressure above the wing forcing it upward. The primary tips add their own airfoil effect. A bird can move each feather independently by contracting muscles near the base. This allows the bird to adjust feather positions to take advantage of air currents in the best possible way. When rising air currents, called thermals, provide additional lift, the bird may travel without flapping its wings.

The wings and the muscles that control them are fascinating to study, but even more amazing is the way the bird's whole body system is synchronized for flight. The bones are hollow to make them lightweight, but are reinforced with internal struts for strength. Diets are high in energy-rich foods, and the digestive systems are

geared to rapid processing. Birds have extremely efficient lungs and circulatory systems and can fly great distances before getting tired. The muscles that power the wings also contract and expand the rib cage, filling and emptying the lungs with each wing beat. As the bird breathes, some air passes directly to the lungs and into the tiny tubules where oxygen reaches the blood. However, much of the air bypasses the lungs and goes into a series of air sacs located in other parts of the body. This air, which retains its oxygen, passes back through the breathing tubules of the lungs when the bird exhales. This allows the bird to obtain oxygen as it inhales and exhales.

Much more could be said about these amazing flyers and the principles of flight, but perhaps this glimpse into the fascinating world of wings will stimulate you to do some research on your own. \*\*



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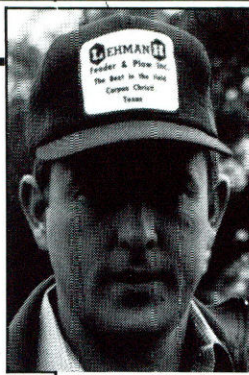
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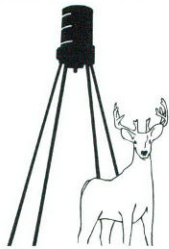
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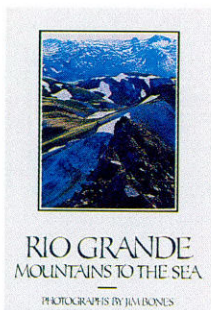
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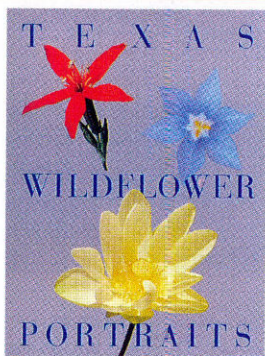
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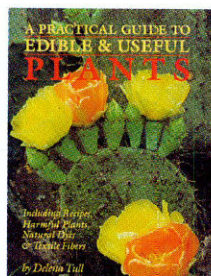
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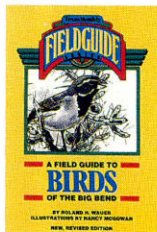
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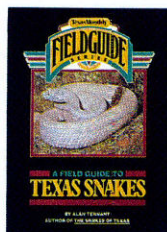
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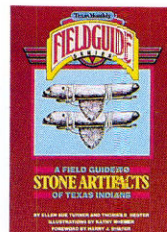
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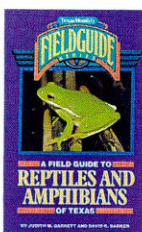
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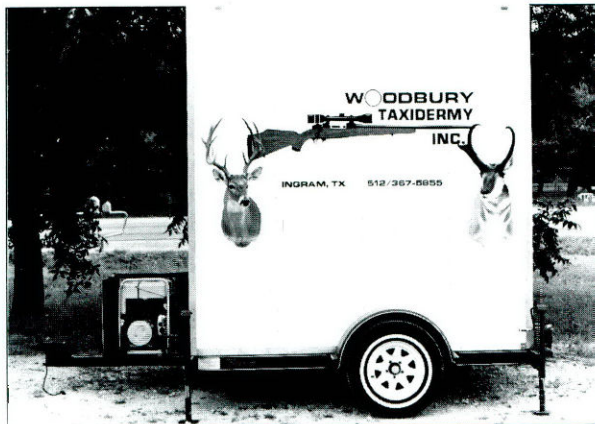
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TEXAS PARKS & WILDLIFE is published monthly by the Texas Parks and Wildlife Department at the Texas Parks and Wildlife Office Building, 4200 Smith School Road, Austin, Travis County, Texas 78744, David Baxter, Editor. During the past 12 months, the average net press run has been 185,600, paid circulation 169,108, free distribution 10,629, and 5,863 for files, spoilage, etc. September issue ran 184,600 press run, 169,505 paid circulation, 11,580 free distribution and 3,515 for files, spoilage, etc.

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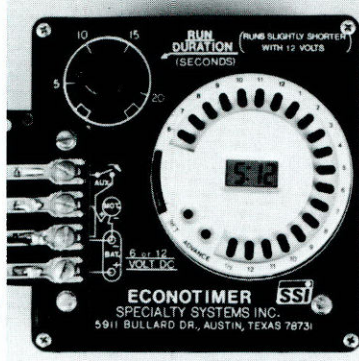
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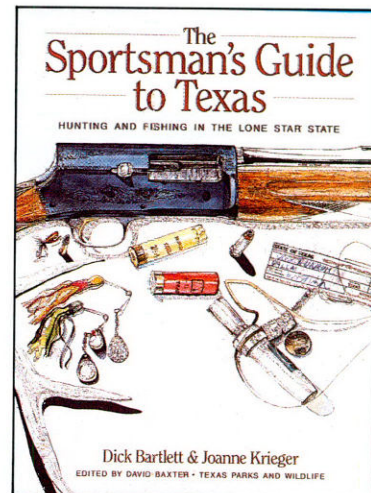
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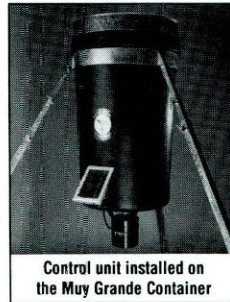
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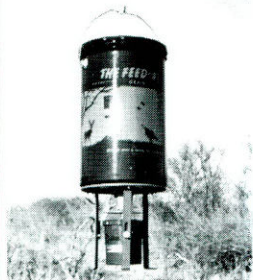
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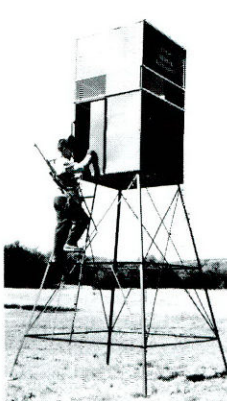


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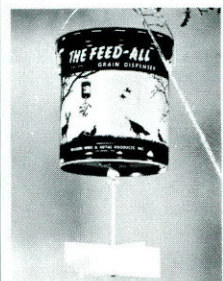
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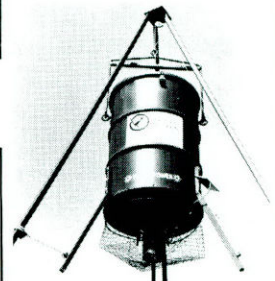


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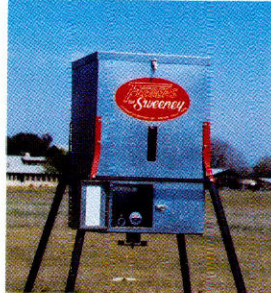
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# Letters

## Correction

The second statement under "Type II WMA Rules & Regulations" on page 16 of the October issue should read as follows:

"In addition to any other statute or regulation, a person commits an offense if that person (all persons) fails to visibly wear at least 400 square inches of hunter orange material with at least 144 square inches appearing on both chest and back during time(s) when the taking of deer is permitted. Exempt from these requirements are: persons within vehicles or designated campsites and authorized department and landowner employees; persons hunting sandhill cranes and waterfowl or fur-bearing animals, bobcats and coyotes at night."

## Grandpa Knows Best

I just thought you might want to know how hard your slot limits can be on grandpas, particularly at Gibbons Creek where the slot limits for black bass are 15 to 21 inches.

I have never had a complaint on any of the Texas freshwater slot limits until June 7, 1988, when my 11-year-old grandson, Jordan Amyx of Abilene, caught a 20-inch black bass while crappie fishing on Gibbons Creek near Bryan-College Station in Grimes County.

It is always hard to release a fish that size, especially when it was caught by your 11-year-old grandson.

Jordan may have learned to obey the law, but Grandpa still feels bad about turning that "wall-hanger" loose for that young lad.

Charles J. (Jack) Keese  
Bryan

■ We appreciate your concern and disappointment of not being able to allow your grandson to keep the 20-inch largemouth bass he caught at Gibbons Creek. Consider though, without the limit now in effect, chances are that your grandson would not have had the opportunity to catch a fish that size.

My experience with youngsters is that what they enjoy most is catching fish. Jordan's experience of the catch and his knowing he has done something to benefit the future of bass fishing in Texas is an ex-

perience he can cherish.

That 20-inch fish is still swimming in Gibbons Creek today to be enjoyed by others and to spawn future generations of bass.

I commend you for teaching your grandson a lesson in conservation. I am sure that every time he catches a large black bass, his thoughts will be with you, his grandfather.

And there will be many large bass in the future if everyone does their share. Good luck and good fishing!

Gary C. Matlock, Ph.D.  
Director of Fisheries, TPWD

## Fry At Your Own Risk

It is my pleasure to notify you that Mary-Love Bigony's article "Fry At Your Own Risk," published in the June 1987 issue of *Texas Parks & Wildlife* magazine, has won the Bronze Award in the Consumer Magazine Category of the 1987 Distinguished Health Journalism competition, sponsored by the American Chiropractic Association.

This award is quite an honor in that the 1987 competition brought a higher quality of entries than ever before. Excellent entries by seasoned writers from prestigious publications and broadcasters made the selection most difficult for the panel of judges.

In behalf of the Association and the Awards Committee, I send you our sincere congratulations. It is our hope that *Texas Parks & Wildlife* will continue its efforts in publishing accurate and motivating health journalism articles.

Irvin Davis, President  
Clayton-Davis & Associates, Inc.  
St. Louis, Missouri

## Poachers Pay Small Fines

The 1987-88 deer season was a memorable one for five companions and me, for it was our first on a game managed ranch.

Two weeks into the season, we were very happy with our new deer lease, as we were seeing bucks, countless turkeys and several feral hogs.

On the third weekend of the season, however, we experienced a major disappointment. I was preparing to leave the deer camp on that Sunday afternoon when two of my friends came by with a trophy buck in the back of their truck. But the 23½-inch spread, 13-point buck had not been killed by either one of them; it had been poached.

The poacher was caught on our lease with a .30-30 in his hands by a fellow hunter. We were assured by our lease manager that all law enforcement authorities would be notified and all proper steps would be taken to prosecute. The result was a mere \$200 fine.

It is a travesty of justice that a poacher escapes with such a minimal fine. This is a prime example of why Texas has a poaching problem.

Why should these outlaws legally pay big money for big bucks when they can poach, then if they get caught pay only a \$200 fine?

Dale A. Friesenhahn  
San Antonio

## INSIDE BACK COVER

The Texas Duck Stamp and Print Program, which began in 1981, has provided annual revenues of nearly \$1 million. Most of this total comes from the selling of approximately 133,000 duck stamps annually, producing about \$589,000. Royalties from the sale of art prints have varied, depending upon the popularity of the stamp art. But despite the program's success, there is plenty more that needs to be done. Many species of North American waterfowl like the mallard are decreasing, causing hunting regulations to become more restrictive every year. The result is a negative chain reaction: more restrictive regulations have led to a decrease in waterfowl hunters, which has vastly reduced the revenues from the sale of duck stamps and prints. All of this is happening at a time when more revenues are needed to support current projects which are preserving and developing wetland habitats in Texas and throughout North America. (See story on page 20.) Photo by Grady Allen.



