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# TEXAS

PARKS & WILDLIFE





# TEXAS PARKS & WILDLIFE

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**Front Cover:** Ring-necked pheasants have been successfully stocked in agricultural regions and are important game birds in the Panhandle and along the coast. Pheasant season opens November 12 on the coast and December 10 in the Panhandle. Photo by Bill Reaves.

**Inside Front:** Raccoons are strictly nocturnal, spending the daylight hours sleeping in a large hollow tree or hollow log. Photo by Martin T. Fulfer.



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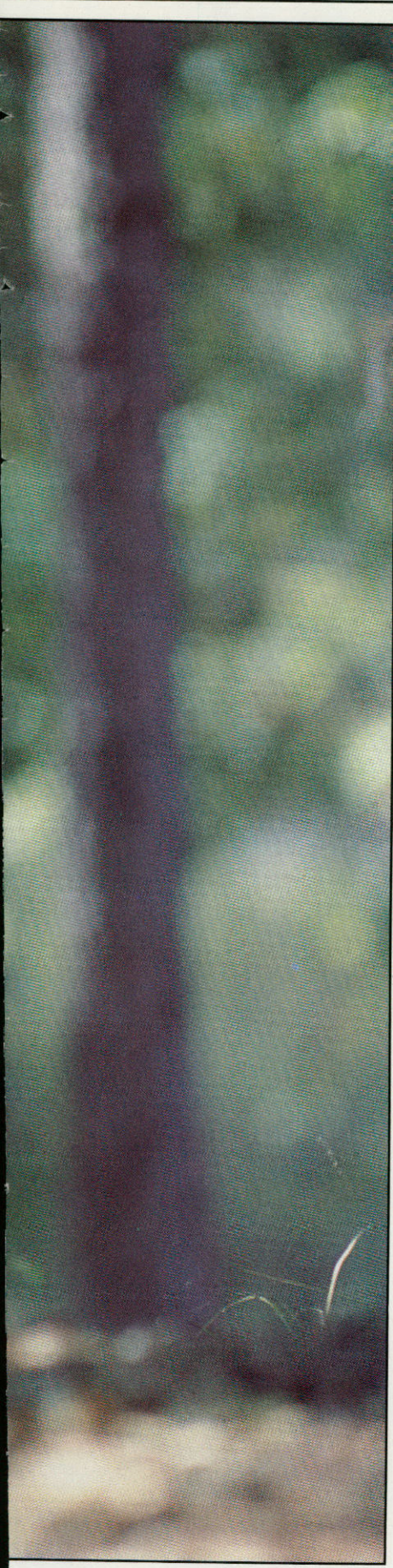
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Dedicated to the conservation and enjoyment of Texas wildlife, parks, waters and all outdoors.

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Ray Sasser

# Woodland Deer

## Restocking Brings Back East Texas Whitetails.

by Ray Sasser

**T**hat magical hour of first light, when hunters expect a big buck to materialize from the dim shadows, had come and gone without incident. Less patient hunters than Pat Seidensticker might have given up, or at least fidgeted in their stands to ward off the penetrating East Texas chill. Less patient hunters also might not have seen the movement that caught Pat's attention in the rolling Pineywoods near Jasper. She realized it was a deer that had moved and she saw just enough antler to know the deer was a good buck.

Then the animal stopped with his head behind a tree, giving her a perfect opportunity to lift her rifle slowly, find the base of his thick neck with the crosshairs and squeeze off a shot.

"As I was doing this, I was thinking this deer was a good buck," recalls the hunter. "He went down as soon as I shot, so I got out of the stand and walked over to the deer. That's when I realized how big the rack was."

Unable to roll the fallen whitetail over and check the extent of his wounds, and probably too shaken at this time to check for vital signs, Pat shot the buck a couple more times for good measure. She kept thinking of the stories she'd heard of trophy deer being knocked down, then getting up and running away. It wasn't about to happen to her.

Positive now that the deer was hers for keeps, Pat tagged the prize

and went to get help from husband Paul, a fisheries biologist for the Texas Parks and Wildlife Department.

"Good buck, huh?" muttered the biologist, reluctant to leave his stand since he had not killed a deer himself. "We'll just go down there and drag him out."

"I think you'd better bring the truck," suggested Pat.

With nine long tines and a 17-inch inside spread, the heavy antlers swept upward for 24 inches. The buck field-dressed 140 pounds. It would have been a prize just about anywhere in Texas. In the heart of the Pineywoods, the big buck was a symbol of the successful restoration of the East Texas whitetail. Deer in this region of the state virtually had been wiped out 50 years ago. Now, thanks to Texas Parks and Wildlife restocking efforts and a new East Texas awareness concerning whitetail conservation, the deer herd in this heavily wooded region is the most dynamic in Texas.

"East Texas was one of the first areas of the state to be heavily settled," explains Gary Spencer, Texas Parks and Wildlife biologist in Jasper. Settlers hunted hard for meat and they essentially wiped out deer in East Texas by the late 1930s.

**This would be considered a fine buck anywhere. In the Pineywoods it's a symbol of successful restocking and conservation awareness. The East Texas deer herd is the state's most dynamic.**

"Beginning about 1940, Texas Parks and Wildlife began restocking East Texas deer range," said Spencer. "Since the first stocking, we've released about 8,500 whitetails that have increased to a herd of about 270,000 deer throughout the Pineywoods. While the deer herds in most parts of Texas remain stable and, in some cases, are decreasing, East Texas deer continue to expand into available range. In the next 15 years I think we'll see most all the good habitat stocked and near carrying capacity."

As far as deer are concerned, East Texas is a deceptive environment, obviously lush in vegetation, but lacking in the nutritional browse that creates so many trophy deer in the South Texas Brush Country.

"The Pineywoods is an area of sandy soils that are leached out by high rainfall," said Spencer. "Except for spring and early summer, when the range is in peak condition, avail-

able foods are not all that good for deer."

Best quality animals are taken in areas of low deer density. Where whitetails are allowed to exceed the carrying capacity of the range, the result is stunted deer, with bucks that field-dress less than 100 pounds.

As is the case elsewhere in Texas, most of the East Texas hunting pressure falls on the buck segment of the deer population. Only with the passage of the Wildlife Conservation Act has Texas Parks and Wildlife gained the authority to set deer hunting regulations for nonregulatory counties or regulatory counties with exceptions. Nine such counties existed in East Texas. Few allowed the harvest of antlerless deer or spike bucks.

Even in areas where antlerless permits are issued, there's often a reluctance on the part of hunters to harvest does. Organized hunting clubs, which deserve credit for their

role in reestablishing East Texas whitetails, went through years of trying to build up the populations.

Now it's tough for some of these sportsmen to realize that the pendulum has swung in the other direction. Spencer says it's common in East Texas for specific deer ranges to go from a balanced to an overpopulated condition in a three-year span.

As the deer herd increases in this part of the state, the issuance of antlerless permits also will increase. It's a good management practice for sportsmen to fill their doe tags early in the hunting season.

Hunting practices in East Texas differ from those in other parts of the state because of the dense cover. Except along pipeline rights-of-way, clear-cuts and cultivated fields or pastures, visibility is limited by vegetation. Compared with Central Texas hunting, long shots are rare in this part of the state.

Hunters in the Pineywoods some-



times use shotguns loaded with slugs or buckshot. Many an East Texas mosshorn has been ambushed by a squirrel hunter with the foresight to stock a couple of buckshot loads in his shirt pocket.

The most efficient tool for deer hunting anywhere in the state, however, is a high-powered rifle equipped with a scope sight. The popular, flat-shooting calibers like the .243, .270 and 30-06 work equally well in thick cover. The brush-busting ability of slower cartridges has been much overrated. Shooting through dense cover at a deer is a poor practice that frequently results in crippled game.

While woodland deer hunters sometimes choose rifles with open sights, a high-quality scope will greatly improve their shooting skills. In the shade and shadows of thick cover, the scope's light-gathering capabilities become more important than magnification.

Fixed-power scopes for East Texas hunting should be no stronger than 4-X. A good variable scope with ranges from 2-X to 7-X is a more versatile tool. Hunting in close cover with a variable scope, the hunter should leave the scope set at its lowest power. It then can be adjusted upward for use as a spotting scope for specific animals.

Not only does a scope aid hunters through its light-gathering ability, it also makes aiming more precise, allowing exact bullet placement.

Because of limited visibility in East Texas, the hunting emphasis shifts from looking for specific animals across wide horizons to woodsman-ship and learning to read deer sign. Deep woods hunters select stands overlooking deer trails or buck scrapes since they usually can't see very far.

Hunting buck scrapes is particularly effective early in the regular deer season when East Texas whitetails are still in the rut. A scrape is a pawed-out area that's invariably lo-

**Thick cover in the Pineywoods makes deer more difficult to see, placing a premium on woodsmanship. Some 8,500 whitetails stocked in East Texas since 1940 have expanded to a herd of 270,000.**



Grady Allen

cated under an overhanging limb. Bucks visit their scrapes irregularly, cleaning out leaves that have fallen into them.

The buck urinates in the scrape, hooking, chewing and rubbing his face on the overhanging limb to leave further scent. Does that are ready to breed also urinate in the scrape. A buck may make several scrapes. When he locates one that's been visited by a doe, he trails her in hopes of breeding.

East Texas hunters also plant food plots and erect corn feeders to attract deer, but the best bucks are seldom killed in such fashion.

Because of the thickness of cover and due to the emphasis on woodsman-ship, East Texas is an ideal area for bowhunters. Archers need to get within 30 yards of a deer to make a good shot and most prefer to get much closer.

Another factor that makes the Pineywoods attractive to bowhunters is the fact that deer in this part of the state begin their breeding season

in October, when bow and arrow enthusiasts have deer hunting to themselves. An active rut is important for hunters who rely on the scrape-hunting technique.

The problem facing East Texas deer hunters is the same one that's epidemic throughout the Lone Star state—finding a good place to hunt. Some two-thirds of the East Texas deer range is private land, but the region does have 680,000 acres of national forest land.

"The Davy Crockett National Forest provides some of the best public deer hunting in East Texas," says Spencer. "Sam Houston National Forest also has some areas of high deer populations. Sabine and Angelina National Forests are the poorest of the East Texas public deer hunting lands. They have a fairly low deer density—about one deer per 100 acres, but there are still pockets of good populations."

Keep in mind that low deer density areas often yield the biggest trophy bucks.

East Texas has more open hunting land than any portion of the state. Some large timber companies have hunting land available, as do national forests.

Hunting success rates on public lands tend to be very low and hunting pressure is often high. Dr. James Kroll, a white-tailed deer specialist with Stephen F. Austin University in Nacogdoches, tells of seeing six deer stands around one 35-acre clearing in Davy Crockett National Forest.

"If a deer had entered that clearing on opening day, it would have ended up like a sieve. Then there would have been a fight over who 'owned' the deer."

Still, East Texas has more public land than any other portion of the state, good news for sportsmen who can't afford or can't locate a private lease. More good news is the relatively low lease prices in the Pineywoods if you can find a lease.

"Some of the large timber companies have put a freeze on hunting leases but others still have some lands available," Spencer explains. "Timber companies own about 3½ million acres of East Texas. Lease prices on large tracts of land run about \$1 per acre."

Rather than small groups splitting the cost of a lease, large hunting clubs are prevalent in East Texas. Clubs may lease several thousand acres of timber company holdings and the membership may number 100 or more hunters.

The cheap (by Texas standards) cost of \$75 to \$200 per year for a hunting club membership assures long waiting lists that are generally stacked in favor of local residents. In fact, some timber companies adhere to a policy of leasing hunting rights only to local groups. The companies can thus curry good relationships with their neighbors and have locals nearby at all times to act as stewards of the property.

Urban hunters seeking a deer lease in East Texas might be better off trying to locate a small tract available through a private landowner.

Such a lease arrangement will cost more than a hunting club. The prob-



lem in East Texas is locating landowners who are interested in leasing. The lease system is a relatively new concept in this part of the state.

Spencer recommends placing ads in local newspapers and contacting agencies such as the county agriculture agent, the Soil Conservation Service and the Agricultural Stabiliza-

tion and Conservation Service to see if they have knowledge of available properties.

In terms of highest hunter success rates, the best East Texas counties for deer are Houston, Polk, Tyler, Walker, Cass, Marion and Harrison.

Hunters lucky enough to land a large property, either through a tim-





Ray Sasser

ber company or a private individual, may have to settle for poor hunting at first and hope to build up the deer population over the years. Texas Parks and Wildlife biologists are available to make management recommendations. A long-term arrangement may seem less than ideal; however, if the few deer present are given

proper protection, they can become many in just a few years. That's essentially the success story of the entire East Texas whitetail herd.

For information on national forests in East Texas, contact the Forest Supervisor, Federal Building, Box 969, Lufkin 75901. The following timber companies offer brochures

directing hunters to their open lands and may have some hunting lands available to lease: Temple-Eastex, Drawer N, Diboll 75941; Charles Allen, St. Regis Paper Co., Box 149, Lufkin 75901; International Paper Company, Box P, Jefferson 75657; and Kirby Forest Industries, Box 1514, Houston 77001. \*\*

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# Park on the Guadalupe

by Mary-Love Bigony

**F**ew rivers in Texas—perhaps in the nation—rival the charm of the Guadalupe as it flows through the Hill Country beneath an awning of huge baldcypress trees. It's the sort of place that Texans strangled by the trappings of city life can't get enough of, but public access to the Guadalupe generally has been limited to the area below Canyon Dam. However, with the opening of Guadalupe River State Park in June, canoeists and tubers have access to a scenic stretch of this Hill Country stream above Canyon Reservoir.

The river courses over four rapids as it winds its way through the park and slices the park into two sections. There are some three miles of river frontage on the north side and about 1½ miles on the south. At the present time only the 1,239 acres south of the river are open.

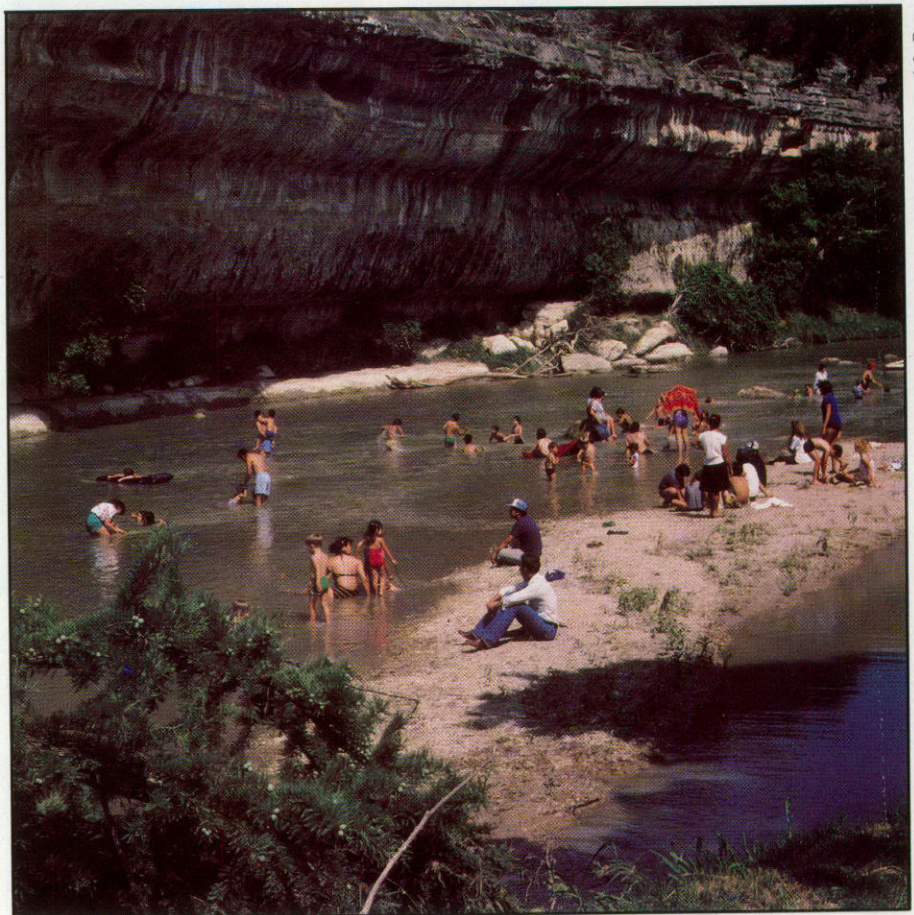
Thousands of words have been written about the Texas Hill Country. It is a place that tugs at the emotions of long-time residents and first-time visitors alike. All the phrases that have been used to describe the Hill Country come to life at Guadalupe River State Park: rolling hills cloaked by cedar and oak, limestone cliffs, lush valleys and clear streams. The park's terrain encompasses all of this, ranging from dense juniper stands to open savannahs to wooded river bottom forests. Perhaps the sights aren't as dramatic as some found in other parts of the country, but the area's understated beauty is seductive.

Much of the vegetation of Guadalupe River State Park has been left

dense and luxuriant—not exactly wild, but definitely lacking a manicured appearance that would be incongruous in this rugged country. The park's native grasses have recovered from years of grazing and overstocking and an area of virgin Ashe juniper, the likes of which are disappearing in some places, provides the required nesting habitat for the rare golden-cheeked warbler. A variety of shrubs, vines, forbs and trees such as sycamore, elm, basswood, willow and

hackberry garnish the lowlands along the river. Oak and juniper woodlands interspersed with grasslands set the stage for the hilly uplands away from the river where the campsites are located.

**The beautiful Guadalupe River (right) is one of the state's most attractive streams. The park has a put-in point on the Guadalupe for canoeists and tubers, as well as a designated swimming area (below).**



A.L. Bass





In addition to the standard tent and multiuse campsites found in most state parks, Guadalupe River has an area with 20 walk-in campsites. This shady area is particularly appealing because tents can be set up away from the roads for a more secluded feeling.

The park's day-use area is magnificent, with a half-mile stretch of cypress-lined Guadalupe River as a backdrop. Steps made of native rock lead from the parking area down to the picnic tables, and the parking lot, although nearby, can't be seen from the river. The day-use area is accessible to the handicapped.

Even people who don't set foot in the water would be hard-pressed to find a more picturesque setting for a picnic, but it's almost impossible to sit at one of the tables and not be drawn to the river. "There aren't

Hill Country scenes such as this are preserved within the park, and are a major part of its irresistible charm for thousands of visitors.

many places like this on the Guadalupe where people can swim," observed park superintendent Duncan Muckelroy, and people are indeed drawn to the designated swimming area on the perimeter of the day-use stretch. Fishing is permitted above and below this area, with good catches of spotted and largemouth bass, catfish and sunfish fairly common. A natural put-in point for canoes and tubes is nearby, as well as an old wagon ford reminiscent of earlier times.

There's no doubt about it—the park's serene atmosphere is conducive to sitting around relaxing. That's fine, of course, but try to shake off that inertia for at least an hour or so and hike the nature trail. It covers some two miles and passes through the picnic and camping areas, so there's more than one place to begin or end a hike. The trail also goes by the new amphitheater. But the best parts of the trail are the sections that traverse the craggy, undeveloped areas. White-tailed deer dart

by now and then, armadillos shuffle along in the tall grass and birds of many different species sail overhead. The sights must be similar to those that greeted German immigrants who settled this area in the mid-19th century.

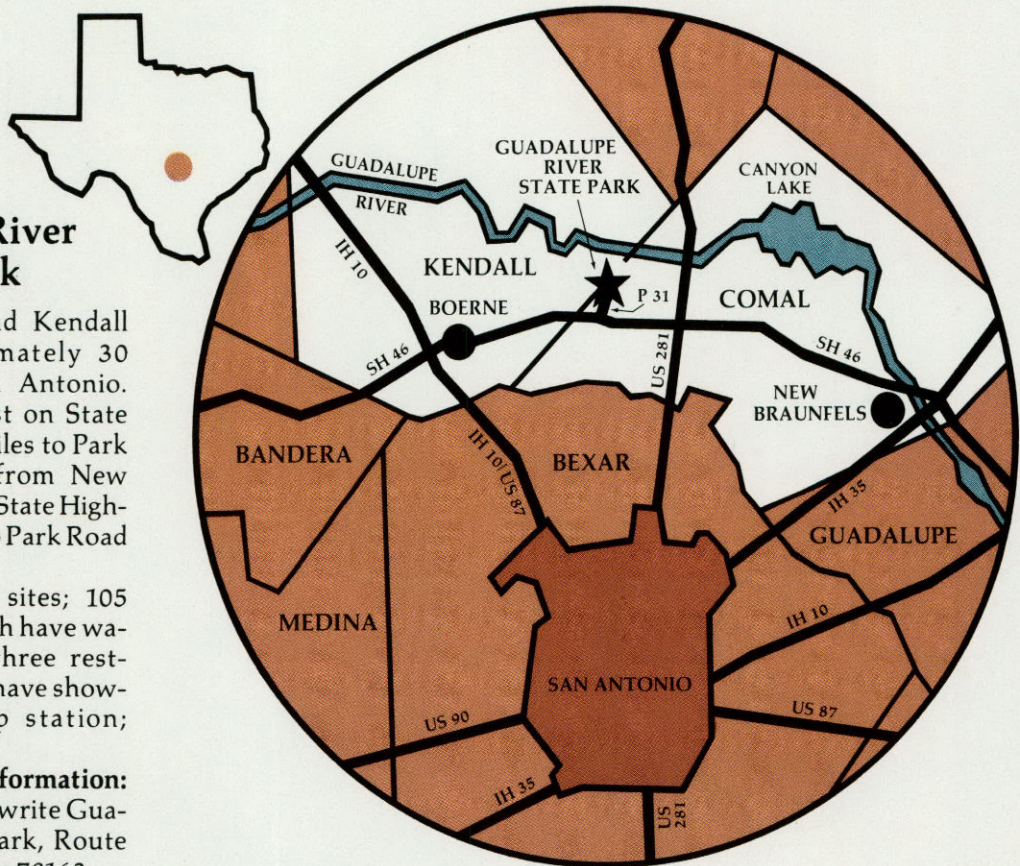
As with any area situated on a river, flooding is a possibility at Guadalupe River State Park. While that possibility should not detract from enjoyment of the park, campers should always heed warnings issued by the park staff. In 1978, before the park was developed, an exceptionally heavy rain of 30 inches in 24 hours caused the Guadalupe to crest 63 feet above normal stream level. The flood carried massive rafts of timber downstream, snapped off the tops of some of the huge cypress trees and uprooted others. Tangled masses of debris were left ensnared in treetops as the water receded. Most of the damage done by the flood has been cleaned up, but there are still a few vivid examples of the incredible force of running water.

## Guadalupe River State Park

**Location:** Comal and Kendall Counties, approximately 30 miles north of San Antonio. From Boerne, go east on State Highway 46 for 13 miles to Park Road 31 entrance; from New Braunfels, go west on State Highway 46 for 27 miles to Park Road 31 entrance.

**Facilities:** 50 picnic sites; 105 campsites, 48 of which have water and electricity; three restrooms, two of which have showers; sanitary dump station; playground.

**For reservations or information:** Call 512-438-2656 or write Guadalupe River State Park, Route 2, Box 2087, Bulverde 78163.



In an interesting example of Robert Frost's "good fences make good neighbors" philosophy, the park and its next-door neighbor, Honey Creek Preserve, are working together for the benefit of both areas. Public access to Honey Creek, owned by

the Texas Nature Conservancy, is controlled to protect its sensitive natural resources. The only point of entry is from Guadalupe River State Park. The Conservancy is refurbishing a 66-year-old house that was on the park property when the state

acquired it, and it will be used as a staging area with trail access for tours of Honey Creek. Conservancy volunteers did the work, with park employees offering advice in various areas. The Conservancy plans to make its volunteer corps available

**A walk along the park's two-mile nature trail is one of the best ways to appreciate the outstanding scenery. The trail passes through the picnic and camping areas and traverses the craggy, undeveloped portions of the park.**



for projects in the park, and is examining the possibility of working with the park staff to develop interpretive programs for the amphitheater. Park visitors may inquire at the headquarters about tours of Honey Creek.

Guadalupe River State Park is part of the Upper Guadalupe, that is, the stretch of river above Canyon Reservoir. That portion of the river

Glen Mills



below the dam is known as the Lower Guadalupe and in the past few years has become notorious for its crowds and trash. (See *Texas Parks & Wildlife*, July 1982 and September 1983.)

The newly opened state park is destined to be a popular river access for recreationists, but the trash of the Lower Guadalupe will not be tolerated in the park. Parks staff have the authority to enforce laws against littering and they will do it.

Some 24,000 people visited Guadalupe River State Park the first month it was open this past summer, and visitation over the Fourth of July weekend exceeded 10,000. It goes without saying that if each person leaves behind even a small amount of trash, the litter problem on the river will be serious. The effort required for people to remove their own trash is small compared to the aggravation that accumulated trash will cause future recreationists. \*\*

Glen Mills







# “A land of milk and honey, of perennial flowers, of crystal streams rich and fruitful beyond measure.”

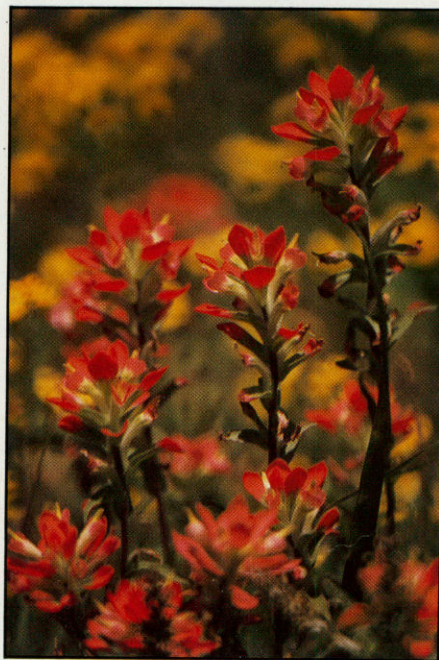
Article and Photos by Bob Parvin

**T**hose words, lifted from the report of Prince Solms-Braunfels, early 19th century leader of the Hill Country's first European colonists, may well have described the world of Honey Creek.

Born of a limestone cavern, it flows through the privacy of its guardian canyon and upright old cypress trees; playing a kind of music as it goes off to join the Guadalupe River north of San Antonio.

Honey Creek remains as refreshing a scene today as it was 137 years ago when the prince and his German pioneers may have seen it. And if The Texas Nature Conservancy has its way, it will always flourish for its own sake and delight the eyes with its beauty.

The Texas Nature Conservancy, a state affiliate of a national nonprofit conservation organization, maintains and protects the two miles of Honey Creek and its adjoining upland meadows of oak and cedar as a special preserve. At the current rate of extinction of such places in Texas,



**Honey Creek Preserve represents an example of the Texas oak-juniper savannah found only in the Hill Country. This is one of 19 ecosystems on the Nature Conservancy's Critical Areas list, eight of which are found only in Texas.**

Honey Creek is to The Conservancy as whooping cranes are to the American conscience.

Frank Blair, president of the national branch of The Conservancy warns: "What we have saved of our native Texas thus far, and what we will save in this decade, may well be all that will remain for us to pass on to future generations."

Identifying and sparing remnant native ecosystems is the focus of the private-sector conservation group. As thousands of acres vanish daily, along with entire populations of living things, The Conservancy has narrowed its Critical Areas list to the 19 or so indigenous American environments that are currently unprotected by state or federal agencies. At least eight of these ecosystem classifications are found in Texas alone. Honey Creek Ranch Preserve is one of them, representing an example of the Texas oak-juniper savannah found only in our Hill Country region.

The creek was a bonus to The Conservancy's 1981 purchase of the





**Upland areas in the preserve are showing signs of recovery from a century of overgrazing, but the creek seems to have maintained its balance in nature. Tours of the preserve begin at Guadalupe River State Park.**

old Doeppenschmidt/Honey Creek Ranch property—an acquisition that came just in time to outbid a developer and spare the area from the northward march of San Antonio (25 miles south). While upland areas around it are showing signs of recovery from a century of overgrazing, an abuse that stripped much of the Hill Country's thin topsoil and native grasses, the creek seems to have maintained its balance in nature.

Dwarf palmetto palms wave their bladed fans from within the deep green shadows of the banks. The cav-

ern spring that brings Honey Creek to life is the only niche on earth claimed by the aptly named Honey Creek blind salamander. Its waters are also home to the Guadalupe bass, Cagle's map turtle, the Texas shiner minnow and, as studies continue, probably many other aquatic rarities.

Delicate capes of maidenhair fern spread around the creek's numerous feeder springs and seeps. The spicebush, a lobe of ovate leaves on fine stems, hugs the deep shade—secure beside its companion creek here, but imperiled elsewhere in Texas.

A frantic *buzz-see-wee-see-wee* reveals the presence of a golden-cheeked warbler high in the overstory. Because of its preference for juniper woods here on the Edwards Plateau, the golden-cheeked warbler is dwindling in proportion to the number of

cedar breaks cleared for fence posts and pastures.

Sixty feet overhead, the leafy crowns of sycamores, cypresses and elms stand out to the breeze and sunlight just above the rocky rim of Honey Creek's narrow canyon. Tucked away beneath the umbrellas of these giant trees, the creek and its successions of gentle rivulets and lily pad pools seem hidden. Visitors entering its sanctum from the rim of Honey Creek's drop-off canyon are overwhelmed by the cool lushness. Trees arch overhead to scatter light beams through the sweet air that hangs over the creek.

The 1,825-acre Honey Creek Ranch Preserve now stands shoulder to shoulder with the recently opened 1,900-acre Guadalupe River State Park.

The juxtaposition of a sensitive



**Honey Creek's cool lushness as it flows through the preserve that bears its name represents the type of scene that might have greeted the first European colonists who came to the Hill Country more than 100 years ago.**

natural area with a state park whose gates are open to a burgeoning urban population may seem precarious, especially because of the vulnerability of Honey Creek. But sharing goals and fencelines is nothing new to The Texas Nature Conservancy and the Texas Parks and Wildlife Department.

Because of its nontaxable incentives to private landowners and its private-business approach to natural area acquisitions, The Conservancy

manages most real estate transactions with expediency. The group purchases threatened ecosystems (in Texas: 80,000 acres in 24 projects; in the U.S.: 600,000 acres in 720 preserves), that are sometimes managed for eventual resale (at par value) to responsible state and federal conservation agencies.

In 1978, Texas Parks and Wildlife purchased the 1,641-acre Enchanted Rock site near Fredericksburg after The Conservancy agreed to sell it for use as a state park and natural area.

Special places such as Honey Creek are usually kept in Conservancy management for scientific studies and limited public use. Rarely are areas of higher scientific and aesthetic

value conveyed to public agencies, except by strict conditions that safeguard natural values of the tract, be it one acre or tens of thousands.

As neighbors inclined to help each other benefit the future of our diverse lands, you can be assured The Texas Nature Conservancy/Texas Parks and Wildlife team will make a creative model project of Honey Creek/Guadalupe River State Park: two worlds in nature with a tread-light bindery. \*\*

**Editor's Note:** Honey Creek was acquired by the Texas Nature Conservancy with a \$3 million loan. The Conservancy is in the midst of a campaign to repay the loan through private contributions.



## ONE-BUCK LIMIT DRAWS INQUIRIES

Hunters who plan to hunt white-tailed deer in more than one county this season may not be aware of the effects of restrictions in those counties with a bag limit of one buck.

Texas Parks and Wildlife Department officials said 91 Texas counties have a one-buck limit, although most Texas counties have a limit of two.

"If a hunter gets a buck in a one-buck county, he or she must go to a county which has a two-buck limit to take the second buck," explained David Palmer, director of law enforcement operations. "However, if the hunter takes the first buck in a one-buck county, he cannot go to another one-buck county to take his second buck."

Conversely, if a hunter takes his first buck in a two-buck county, he may go to a one-buck county to get his second buck, Palmer noted.

The hunter must immediately attach the tag marked "buck or antlerless white-tailed deer tag" from his hunting license to the carcass in the field.

## FISHERIES AGENCY GETS \$10,000 GRANT

Officials of the Texas Parks and Wildlife Department have expressed appreciation to the Zebco Division of the Brunswick Corporation for a \$10,000 grant to the department's Fisheries Division.

Bill Rutledge, hatchery branch chief for the TP&WD, recently accepted the check from Zebco's FishAmerica Foundation.

The grant was one of five announced by the foundation. Other organizations receiving \$10,000 grants are the Sport Fishing Institute, Izaak Walton League, Florida League of Anglers and the Oklahoma Department of Wildlife Conservation's Fisheries Division.

Rutledge said the money will be used in development of a new fish-spawning facility at the department's Marine Research Station at Palacios.

Zebco officials said they selected the TP&WD mainly because of its successes in producing quality fishing through fishery management, including stocking of native and non-native fish species.

# Outdoor Roundup

COMPILED BY THE  
PARKS AND WILDLIFE  
DEPARTMENT'S NEWS SERVICE



## WHITEWING SEASON GETS MIXED REVIEWS

Hunting success during the white-winged dove season in the Lower Rio Grande Valley ran the gamut from excellent to poor, depending on the location.

Texas Parks and Wildlife Department biologist Gary Waggenerman said some hunters found concentrations of whitewings, but many of the traditionally good hunting areas near the Rio Grande were short on birds during the September 3-4 and 10-11 season.

"We have seen some definite shifts in whitewing movements during the past 10 years," Waggenerman said, "and one of the main trends is a scattering of the birds across a larger area because of food availability."

Waggenerman said some of the better hunting this year occurred around corn or sunflower fields well away from the river.

"Many landowners have planted sunflowers and other dove food plants to attract the birds, and this has the effect of spreading the harvest over a broader area," he said.

While whitewings failed to show up in some areas, Waggenerman said good populations of mourning doves took up the slack. "During the past several years hunters in the Valley actually have harvested more mourning doves than whitewings," Waggenerman noted.

The Rio Grande Valley is on the northern fringe of white-winged dove range, although they occasionally venture farther into the state's interior. "The Valley population could be called true residents now," said Waggenerman. "In the 1970s, most of the birds here flew across the Rio Grande every day to feed. Now fewer than 15 percent do this, because there apparently is more for them to eat on the Texas side."

## WADEFISHING CAN BE DANGEROUS

The annual fall flounder "runs" along the Texas coast offer wadefishermen excellent opportunities to catch the tasty flatfish. However, wading around flounder-fishing areas can be hazardous.

Biologist Jerry Mambretti of the Texas Parks and Wildlife Department said good flounder areas often have strong currents, heavy ship and barge activity and sharp dropoffs. "Wadefishermen often overlook the importance of a flotation device (life preserver) because they don't expect to be in deep water," Mambretti said.

Drownings often occur when anglers lose their footing and are swept into deeper water. "Waders worn by fishermen can fill with water and make it even more difficult to swim to safety," Mambretti added.

## WILSON HATCHERY PRODUCES SECOND RED DRUM CROP

The new John Wilson Hatchery at Flour Bluff has produced its second crop of red drum with 1.8 million fingerling-sized fish stocked in Nueces Bay in September.

Gene McCarty, biologist in charge, said the one- to three-inch-long fish were released at two locations in the bay in the northeast corner of the Corpus Christi Bay system.

The first group of red drum spawned at the saltwater hatchery during May produced 2.4 million fingerlings that were placed in Espiritu Santo Bay near Port O'Connor in June.

McCarty said he is optimistic that bay stockings will revive the fishery in Texas bays, since net surveys at Espiritu Santo Bay indicate the stocked fish are enjoying good survival and growth rates.

McCarty added that the new fingerling class was hardly in the water before the same 12 brood fish began another spawn. "We are collecting fertilized eggs now, and should be able to start stocking some fry in the rearing ponds," said McCarty. This new batch of fingerlings should be ready for harvest from the ponds and release into the wild in early November.

## SHRIMP INDISPENSABLE TO GULF FISHERIES

A female shrimp can release as many as one million eggs in a single spawning season.

With that in mind, it may be difficult to imagine that there could ever be a shortage of shrimp.

However, Texas Parks and Wildlife Department biologist Hal Osburn points out that shrimp are a favorite food item throughout the marine environment. Predation on shrimp stocks comes from a host of marine animals, and man takes his share as well.

Yet the long-term status of shrimp may hinge more on how well we protect its fragile estuarine environment. "Shrimp have evolved natural mechanisms for survival despite heavy predation and fluctuating environmental conditions," Osburn said. "But the weak link in their otherwise strong life cycle chain is damaged and lost habitat."

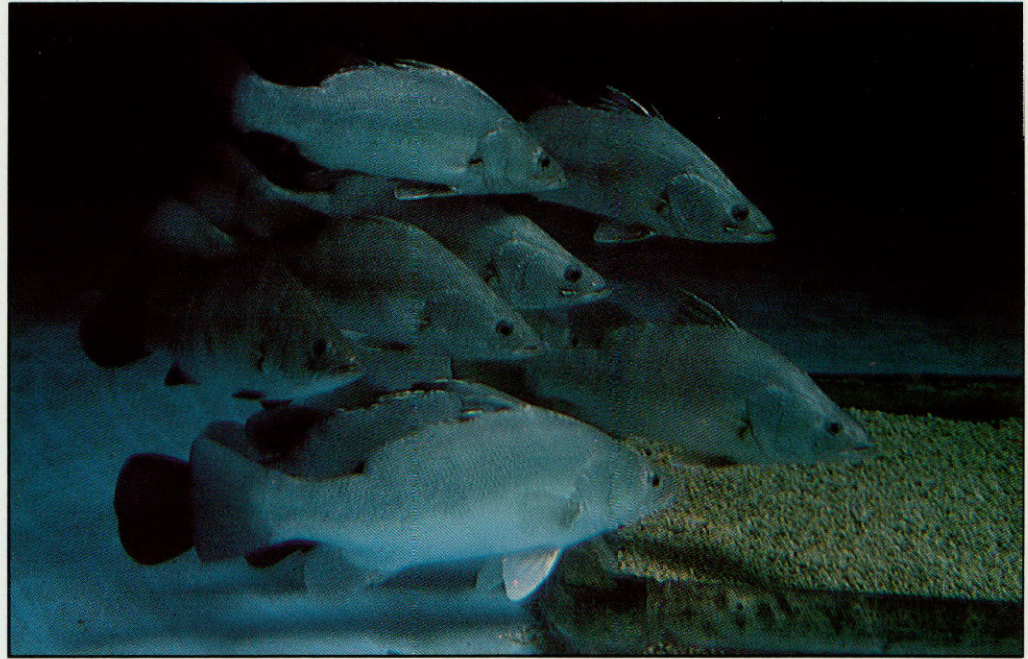
Osburn said examples of this include impoundments which prevent the influx of shrimp, dredging and filling of wetlands, alteration of natural freshwater inflows and the encroachment of polluted waters. "The yield of shrimp in estuaries has been shown to be directly related to the acreage of available wetlands," he said.

He added that preserving shrimp habitat benefits more than just shrimp, since countless other estuarine and marine species are dependent upon wetlands for at least a part of their life cycle.

## MATAGORDA ISLAND MANAGEMENT UNDERWAY

The Texas Parks and Wildlife Department has assumed official control of 43,893 acres of public lands on Matagorda Island, but officials said facilities and services on the state parks and wildlife management area will be extremely limited for at least a year.

The U.S. Department of the Interior's Fish and Wildlife Service (USFWS) transferred management authority to the TP&WD as of September 1. The entire tract remains part of the



## LAKE FAIRFIELD GETS FIRST NILE PERCH STOCKING

The first-ever introduction of hatchery-produced African Nile perch in the United States occurred at Lake Fairfield near Fairfield in late August.

Nick Carter, Parks and Wildlife Department inland fisheries coordinator, said release of approximately 1,000 of the fish was the culmination of nine years of research.

Carter said although the number of fingerlings was small, he expects additional fish to be harvested from other rearing ponds and stocked. "We hope to have enough to stock the 2,350-acre lake at a rate of about 100 Nile

perch per acre," Carter said.

Biologists have experimented with three species of Nile perch, and although spawning has occurred numerous times in the past, the fry had failed to survive in the ponds. Virtually all the research was conducted at the department's Heart O' the Hills Research Station at Ingram, but this group of fingerlings resulted from the first efforts at rearing Nile perch at the Palacios Marine Fisheries Research Station.

Richard Luebke, manager at Heart O' the Hills, said the reason for the immediate success at Palacios is under study.

The Fairfield fish are the *Lates marie* species, which is the smallest of the three Nile perch species studied at Heart O' the

Hills. They normally reach 18 to 20 pounds.

Nile perch are viewed as efficient sport and predator fish that may be able to utilize and control populations of tilapia in Lake Fairfield. Tilapia, which also originated in Africa, have spread to many power plant heated reservoirs and created problems of overpopulation.

Like South American peacock bass, Nile perch require warm water for survival, so reservoirs heated by power plant discharges offer the only suitable habitat for them in Texas.

Carter said further experiments will be conducted at Ingram in an effort to produce a hybrid cross between the *Lates marie* and one of the other species that attain larger sizes.

national wildlife refuge system and will be operated by the TP&WD under federal refuge guidelines.

TP&WD officials said under the interim management plan in effect until September 30, 1984, public access will be basically the same as during the years the island was operated by the USFWS.

Prospective visitors to the island must provide their own transportation by boat, and no water, electricity, telephones or concession will be available.

Wildlife Division officials said no public hunting will be allowed on the wildlife management area portion prior to December, al-

though the wetlands adjacent to the island will be open for waterfowl hunting during the upcoming waterfowl seasons. No hunting will be allowed in the area designated as the state park. The 7,325-acre park portion is open for picnicking, fishing, hiking, beachcombing, nature study, swimming and primitive camping. A two-mile section of beach on the Gulf side of the island is open to the public.

Officials said wildlife biologists already have begun evaluations of protected species, including waterbird colonies, and annual aerial surveys will be continued to monitor the status

of endangered whooping cranes. Waterfowl surveys also will be conducted during the winter months.

The department's law enforcement division has assigned a sergeant and two game wardens to patrol the island. This complement of officers will be augmented by additional officers during the hunting season, officials said.

Persons planning to visit the island should contact the Matagorda Island State Park office, P.O. Box 117, Port O'Connor, Texas 77982, or call 512-983-2215. The park headquarters in Port O'Connor will be open 8 a.m. to 5 p.m. daily.

## SPOTTED GAR SETS NEW STATE RECORD

David E. Smith of Buda, a bowfisherman who once held the state record for carp, has reentered the record book with a 15-pound spotted gar taken at Lake Travis on August 3.

Smith used a 55-pound bow and fishing arrow to take the fish, which was almost 50 inches in length. Record fish taken with archery equipment are listed in the "unrestricted" division of the records, reserved for fish taken by legal means other than rod and reel.

Smith's new record fish replaces a 7¼-pounder caught earlier this year at Lake Livingston.

## GRASS CARP WARNING ISSUED BY TP&WD

Officials of the Texas Parks and Wildlife Department remind owners of ponds and lakes that importation or releasing of white amur (grass carp) is prohibited in Texas.

Grass carp eat aquatic vegetation, and because of this characteristic they have been stocked in a number of impoundments across the nation where noxious vegetation has become a problem.

However, research into the effects of grass carp stocking still is in its early stages, and department officials fear environmental damage could occur if the fish spread into reservoirs already lacking in vegetation for game fish habitat.

Ernest Simmons, Inland Fisheries Branch Chief, said there is only one site in Texas where grass carp have been released legally. At Lake Conroe near Conroe, Texas A&M University researchers stocked the fish to determine if they could control the aquatic weed hydrilla.

Anyone caught importing or possessing grass carp is subject to a state penalty of not less than \$50 or more than \$200. Further, if the fish are brought across a state line, the importer is subject to provisions of the Lacey Act, and penalties are more severe.



## SOME GAME THIEF REWARDS REMAIN UNCLAIMED

Some Operation Game Thief reward money is going begging, according to officials of the Texas Parks and Wildlife Department.

Four persons who dialed the 24-hour, toll-free number 1-800-792-GAME to report game or fish law violations furnished enough information to ultimately convict the violators. Case numbers 512, 586, 590 and 810 are eligible for cash rewards.

They could claim the money by calling Stanley Brooks at 512-479-4850.

Operation Game Thief, initiated in October 1981, offers cash rewards from funds provided entirely through public donations. The six-member Game Thief Committee meets every six months to disburse rewards to callers whose information led to the arrest and conviction of the most flagrant cases.

During the 18 months OGT has been in existence, a total of \$12,125 has been paid to 71 persons. The office received 1,150 calls which resulted in 130 arrests, 547 convictions and \$67,266 in fines.

## FORESTRY ASSOCIATION HUNTING GUIDE OFFERED

The Texas Forestry Association is offering a "Hunting and Recreation Guide" outlining public hunting and recreational opportunities on industry-owned timberlands in East Texas.

Copies of the 60-page booklet may be obtained by sending a check for \$5 to Hunting Guide, Texas Forestry Association, Box 1488, Lufkin, Texas 75901.

## RECORD PRODUCTION YEAR FOR STRIPED BASS, HYBRIDS

Production of striped bass and striped/white bass hybrids reached an all-time high during 1983.

Three hatcheries were involved in the year's output of 1.5 million stripers and 2.5 million hybrid fingerlings for stocking in public reservoirs across the state.

Regional Fish Culturist Charles Gray of Fort Worth said the four million-plus fish not only were the best crop in terms of numbers, but the fish were the healthiest ever shipped out of the hatcheries.

"We have developed improved methods for fertilizing our rearing ponds to assure that maximum numbers of zooplankton are available when the ponds are stocked with fry," Gray explained. "If the fry are well-fed and healthy in the ponds they will have better survival rates in the lakes when stocked as fingerlings."

Hatchery workers treat the rearing ponds with inorganic phosphoric acid and ammonium nitrate as well as organic materials such as cottonseed meal.

The fish are produced by using wild brood fish from which eggs and milt are stripped by hand.

## TP&WD NOT CONNECTED TO FISHING TOURNEYS

Recent publicity about alleged cheating in bass fishing tournaments has prompted Texas Parks and Wildlife Department officials to stress that their agency does not sponsor or participate in any commercial tournament.

"Occasionally the impression is conveyed that the TP&WD helps sponsor such tournaments," said Ernest Simmons, inland fisheries branch chief. "This is a misrepresentation."

Simmons said tournament officials who might indicate such involvement would be engaging in deceptive trade practices.

He said some anglers might believe the department is involved in tournament activity

The fertilized eggs are kept in aquaria for five days until they hatch and the fry develop the ability to swim. The fry then are placed in the rearing ponds.

Gray said that even better production may be possible in the future because of recent advancements in fungus and bacteria control used during the critical five-day period when the newly hatched fry are in the containers.

Another plus in the year's production was the availability of large numbers of brood fish—most of which came from the tailrace below Lake Livingston Dam. Roger McCabe of Waco, stripper program leader, said the Trinity River Authority deserves much of the credit for assisting crews in the collection of brooders below the dam.

McCabe said this year was the first since 1977 when production was high enough to stock almost every lake scheduled to receive stockings. Stripers and hybrids normally are stocked on a two-year rotation.

In addition to freshwater stockings, about 900,000 surplus stripper fry were stocked experimentally in Trinity Bay, and 23,500 fingerlings were released in Lavaca Bay.

In all, 28 lakes received hybrid striped bass stockings this summer, while 24 were stocked with pure stripers.

because it maintains a tournament survey program that collects data from several hundred bass club events each year.

The survey is designed only to determine which 15 lakes in the state get the most tournament attention, and which provide the greatest angler success.

The majority of tournaments surveyed are held by bass clubs, and do not involve large cash prizes, Simmons noted.

"So far our information indicates that bass club activity is not having any detrimental effect on the fishery resources, and is actually a small percentage of the annual bass harvest," he added.

Simmons said the big-money tournaments may result in a temporary increase in harvest on some lakes, but so far no ill effects on fish populations have been documented.



## ANGLER 'BICYCLES' RECORD-SIZED FISH

The Texas Parks and Wildlife Department has certified two new entries in the state fish record book, both caught by the same angler using a "bicycle rig."

Joe Richard of Beaumont caught a 31-pound yellowfin grouper on August 1 and a 20.78-pound tilefish on July 28, both from the Flower Garden Reef area off Sabine Pass.

A bicycle rig is used when fishing for heavy fish at extreme depths. It utilizes a hand- or foot-cranked winch, often made with bicycle parts.

The two fish will be new species categories in the "unrestricted" division of the fish records. This division recognizes fish caught by legal means other than rod and reel.

Richard said he caught both fish at about 180 feet.

## NAUTICAL CHARTS CAN HELP ANGLERS

Coastal fishermen looking for ways to increase their success might do well to obtain nautical charts of their favorite fishing areas.

Biologist Lee Green of the Texas Parks and Wildlife Department said the charts produced by the National Ocean Survey Division of the National Oceanic and Atmospheric Administration (NOAA) can help anglers become more acquainted with the various bay systems.

Green said there are 43 charts covering Texas' coastal waters. "The best charts for the bay fisherman are those classified as small craft charts," Green noted. They cost \$3 to \$4 each, and contain such information as navigation aids, light characteristics, bottom characteristics, distance scales and tide information.

NOAA nautical charts are available at some tackle shops and marinas along the coast, or they can be ordered by mail. The NOAA's free Nautical Chart Catalog #1, which lists the available charts, may be obtained by writing Distribution Division (OA-C44), National Ocean Survey, Riverdale, Maryland 20737.



## DEER MANAGEMENT DAY ATTRACTS BIG CROWD

The largest group of visitors ever welcomed at the Kerr Wildlife Management Area got a first-hand look at one of the nation's foremost white-tailed deer research facilities in late September.

About 200 landowners and managers from the surrounding Hill Country region heard lectures by Texas Parks and Wild-

life Department wildlife biologists and toured the experimental pastures for tips on range management.

Area Manager Donnie Harmel said the day was sponsored jointly by the TP&WD, the Kerr County Soil and Water Conservation District and the Texas Agricultural Experiment Station.

Range management techniques demonstrated during the day included use of prescribed burning, deferred grazing and range recovery through proper

stocking rates with deer and cattle.

The visitors also were given a summary of the department's antler formation study which demonstrated that "spike" bucks (adult bucks without forked antlers) are inferior to forked-antlered bucks of the same age.

The long-term study involved mating one group of does with spike bucks and another to forked-antlered bucks.

The Kerr W.M.A. is located 15 miles northwest of Hunt on FM 1342.

## ENCHANTED ROCK STILL CLOSED

Enchanted Rock State Park is expected to remain closed until early 1984, according to the Texas Parks and Wildlife Department.

The popular park, located 18 miles north of Fredericksburg

in Gillespie and Llano Counties, was closed for extensive construction and development on October 1, 1982. Construction projects include a park headquarters, restrooms, a bridge and utilities.

Law enforcement officials said persons illegally entering the park are subject to fines.

## AUTUMN GOOD FISHING BUT BAD FOR SNAKES

Fishermen who watch out for snakes during the summer may not be aware that autumn is a more likely time to get bitten.

Texas Parks and Wildlife Department biologist Joe Toole said cooler weather causes snakes such as the poisonous cottonmouth moccasin to leave the water and bask in the warm sunshine on logs or shorelines.

"Boat fishermen should be careful when fishing around overhanging trees or brush, because cottonmouths are often found on limbs where they have

a rapid escape route to the water," said Toole. "Bank fishermen should be alert for snakes when walking overgrown areas with high grass or brushy cover."

Most water snakes are non-poisonous and harmless, but cottonmouths are fairly common around lake areas throughout East Texas, Toole said. Other poisonous snakes found in East Texas include the canebrake rattlesnake, southern copperhead and coral snake. "These snakes usually frequent a more upland habitat than the cottonmouth, but they are often found near water or wet bottomland areas," he added.

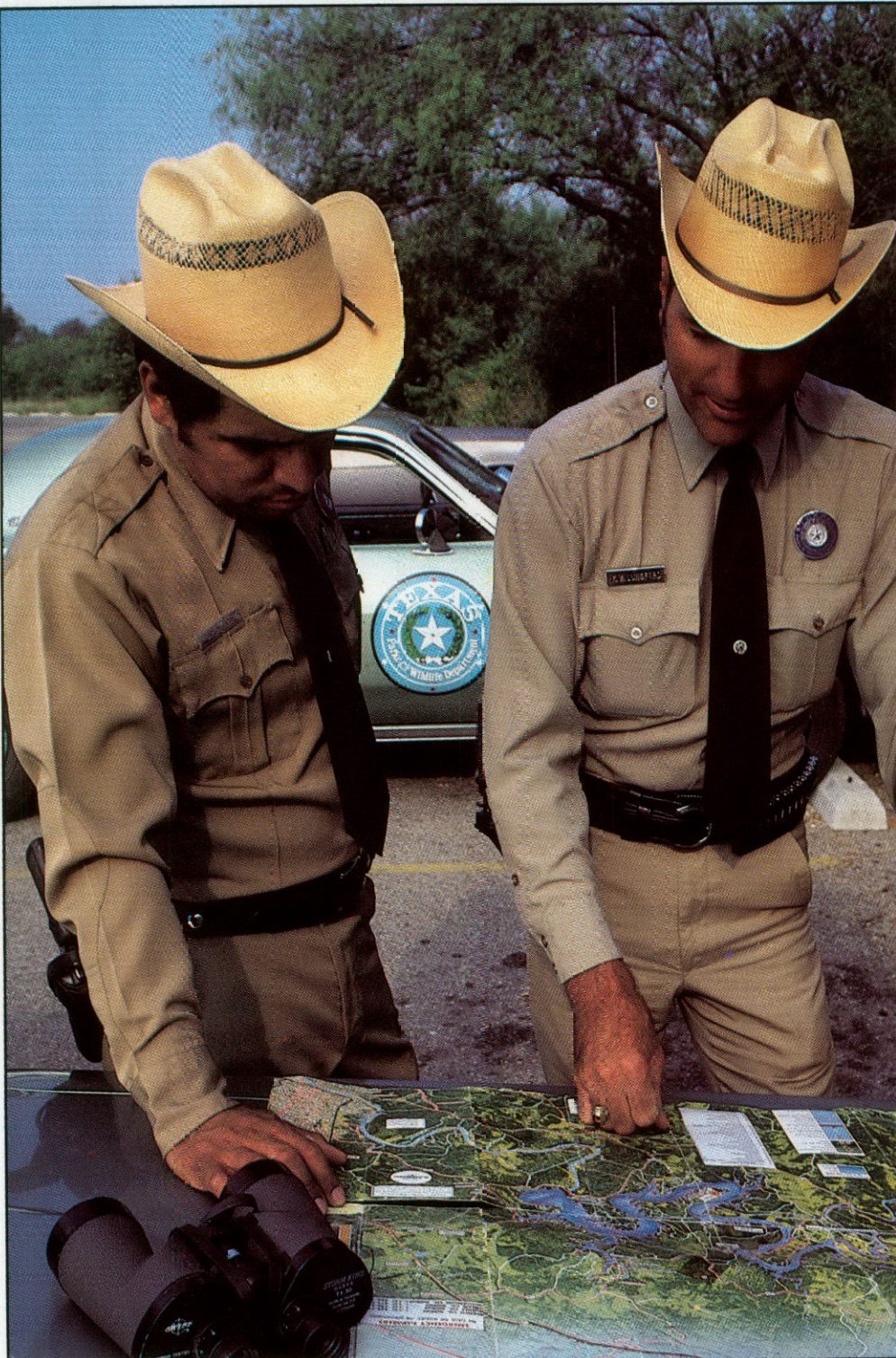
## DECEMBER IN . . .

# TEXAS PARKS & WILDLIFE

Deer season reaches a peak next month, and in the December issue we'll have a story about the South Texas trophy white-tail herd. These deer are well known for their superior size and quality, and we'll take a look at some of the problems that are threatening these magnificent animals. We'll also have an article on two relatively new reservoirs, Lake Texana and Coletto Creek. Coastal Bend area anglers believe both these lakes already are showing considerable potential. There's a photo story on the lost pines of Bastrop County and a look at the department's "Hand of Man" slide show that was presented at the State Fair of Texas last month. Other articles include the beaver, Bentsen-Rio Grande Valley State Park and a Young Naturalist feature on animal eyes.

# Know Your Wardens

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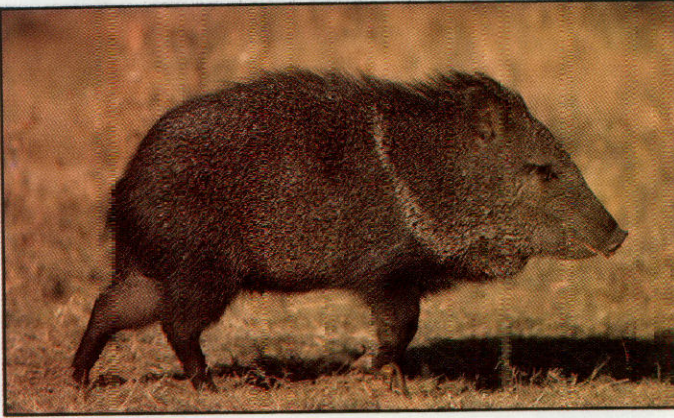


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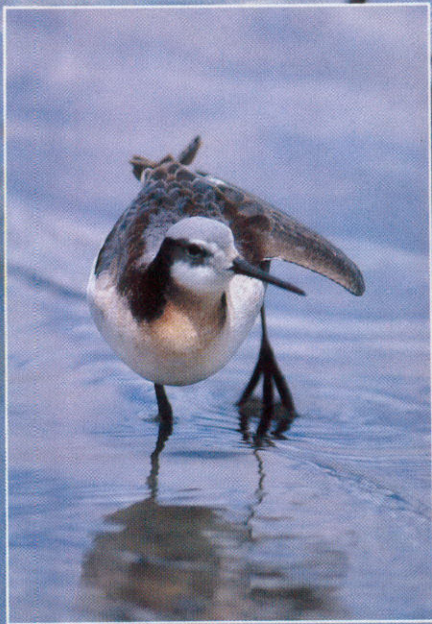
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# Phalaropes

## Henpecked Member of the Avian World

by James E. Dillard, Wildlife Biologist, Mineral Wells

**R**ole reversal is nothing new to a family of phalaropes. It's just a way of life and they probably would have it no other way.

The life history of these small, dainty shorebirds represents a departure from the normal scheme of things. Courtship and breeding habits are topsy-turvy. Not only is the female larger than the male, she displays more brightly colored feathers, a characteristic common to males of most bird species. The drab-colored male phalarope is the henpecked bird of the avian world. He assumes sole responsibility for nest building, egg incubation and rearing of young, duties the female shuns.

Although phalaropes are an oddity in avian behavior, scientists have discovered the reason for their peculiar life-style. Large amounts of the male hormone androgen have been found in the ovaries of female phalaropes. This accounts in part for their larger size and brightly colored feathers. In addition, male phalaropes produce about three times as much female hormone prolactin, which induces broodiness and the development of brood patches (areas of bare skin on the breast which help keep eggs warm during incubation).

Female phalaropes arrive at the breeding grounds in advance of the males and establish nesting territories, a task normally performed by males of most bird species. The brightly colored, domineering females display to each other, and court the males when they arrive later. Following courtship, in which females may mate with more than one male, the male builds a nest in a small grass-lined depression. The female lays four olive-buff eggs and leaves the duty of egg incubation to the male.

She usually remains in the general area and may repeat this process with another male. The less-conspicuous coloration of the male helps prevent detection by predators. Incubation takes about three weeks, and the young leave the nest soon after hatching. The male cares for the young until they are able to fend for themselves.

The phalarope's Latin-derived common name is descriptive of their foot anatomy—*phalaris* means coot and *pous* means foot. Lobed toes, similar to but less developed than those of coots, make them strong swimmers. Phalaropes often are seen twirling on the water, possibly in order to stir up the water while searching for food. They may spin around as many as 60 times per minute while using their needle-shaped bills to grab water insects or other aquatic life. Preferred food includes mosquito and crane fly larvae, insects, crustaceans, worms and mollusks. They also tip up ducklike in shallow water or feed around the margin of water on the shore.

Of the three species of phalaropes found in the world, only the Wilson's phalarope, *Steganopus tricolor*, is likely to be seen in Texas. Were it not for the unique habit of twirling on the water while feeding, its presence probably would go unnoticed by the casual observer. This species makes its winter home in Chile

**In contrast to most bird species, female phalaropes (left) are more colorful than the males. Phalaropes differ from other birds in behavior, as well. The more domineering females arrive at the breeding grounds first, establish nesting territories and court the males.**



and Argentina and its summer home in interior North America. It is a common spring and fall migrant through nearly all parts of Texas.

Named for pioneer ornithologist Alexander Wilson, Wilson's phalarope may be distinguished from the other two species by the absence of wing stripes and the presence of a cinnamon neck stripe shading to a black eye stripe. Other physical characteristics include dark wings, white rump and underparts, gray back and crown and black legs.

The red and northern phalaropes are primarily pelagic, living over the open sea, and are seldom seen over land. Their breeding grounds are in polar regions of North America and Asia. Red phalaropes have been observed on the backs of surfaced whales, feeding on whale lice, or settled on floating seaweed in search of small marine life. Being extremely light and bouyant,

**After the female lays the four olive-buff eggs (above), the male incubates them. Male phalaropes (right) are less conspicuous than the females, which helps hide them from predators. The male also cares for the young.**

they often are blown inland by gales along the Atlantic coast. During August, flocks of the two polar breeding phalaropes numbering 250,000 have been seen in the Bay of Fundy.

Wilson's phalarope is but one of many migratory bird species that spend a short period of time in Texas each year. Not everyone will have the opportunity to observe this unusual visitor, but the next time you are asked to perform some task normally attributed to the opposite sex, think of the phalaropes and consider moderation in your life-style

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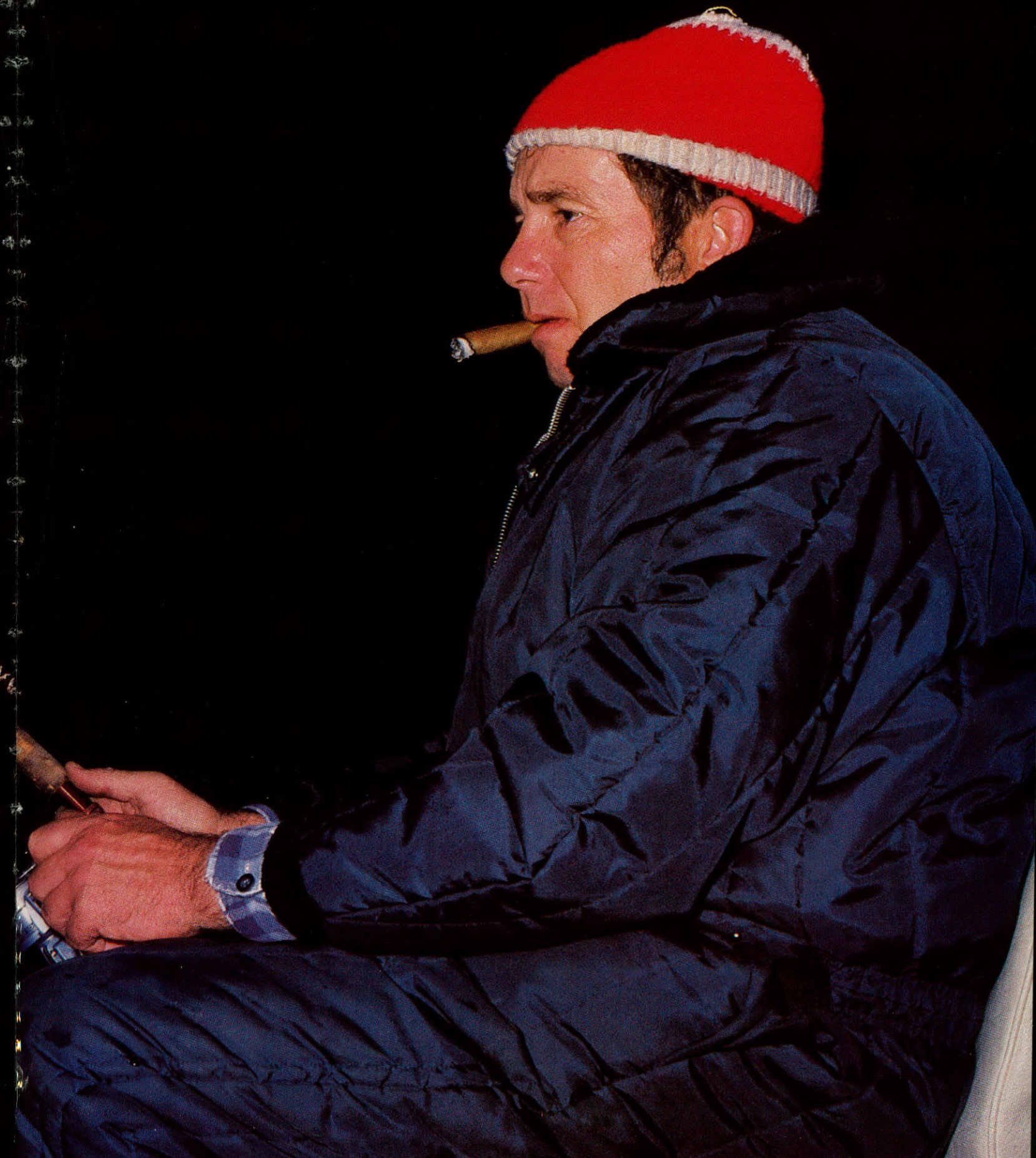
# Hypothermia Sneaks Up On You

by Mary-Love Bigony

**I**t really didn't feel very cold when the boy set out proudly toting his new rod and reel that just the day before had lain under the Christmas tree. He even pulled off his jacket, being perfectly comfortable in his long-sleeved cotton shirt. In his eagerness to try out his new fishing gear, he had dashed out of the house that morning with no breakfast.

When the boy was halfway to the small lake, clouds rolled in along with a brief but intense rain shower, soaking him and his clothes. Then, as Texas' unpredictable winter weather sometimes does, the temperature that had been

near 60 degrees began to drop. The boy dawdled along, and by the time he reached the lake the temperature was hovering around 45 degrees. Winds had kicked up to almost 25 miles per hour, making it feel more like 23 degrees — well below freezing. The boy was shivering, and put on his jacket over his wet shirt. But he was still cold — very cold. And although he was shivering violently, he didn't head for home. He walked along the edge of the lake for a while, then fumbled with his tackle box and spilled the entire contents. Clumsily, he tried to pick the things up, but couldn't seem to get a grasp on them.



Some time later a neighbor's pickup rolled up and stopped. The man got out and called to the boy, who answered in a strange, thick voice. The man realized the boy was in trouble—he was stumbling and couldn't seem to control his movements. The man hustled the boy into his truck, but the youngster seemed dazed and unconcerned. It was only a 10-minute drive to the man's house, and upon arriving he quickly got the boy out of his wet clothes, wrapped him in a blanket and sat him by the fire. The man drew a tub of water, tested it with his forearm to make sure it was warm, but not hot, and eased the youngster into it. When the boy

started to warm up the man brought him a cup of hot chocolate.

The boy was lucky; he could have died, but thanks to his neighbor he recovered from the early stages of hypothermia. And for the rest of his life he would remember how insidiously hypothermia can sneak up on a person.

Texans in most parts of the state enjoy relatively mild winters, but that doesn't eliminate the danger of hypothermia—a general lowering of body temperature due to a loss of heat at a rate faster than the body can produce it. In fact, since people in temperate climates often do not have proper cold-weather clothing, they could be even more vulnerable

to hypothermia. Anyone who spends time outdoors—hunters, campers, hikers, fishermen—should be aware that hypothermia can occur even when temperatures are above freezing. By not anticipating how quickly Texas weather can change and being improperly dressed for the cold, as the boy in our story was, people virtually invite hypothermia.

Human body temperature is delicate. When body temperature fluctuates even a few degrees above or below 98.6 degrees it causes discomfort and is potentially dangerous. Following some basic principles of dressing for cold weather can help keep your body temperature from dipping dangerously low. The body

## WINDCHILL FACTOR

The windchill factor is the temperature the body feels as a result of the combination of the actual air temperature and the chilling effect of the wind. Without any wind, a properly clothed person can withstand a greater degree of cold, but loss of body heat accelerates along with wind speed. The following chart illustrates the combined effect of wind and temperature, which is the effective temperature acting on exposed flesh.

WINDCHILL FACTOR										
Actual Temperature (°F)	Wind Speed									Level of Danger That Exposed Flesh Will Freeze
	0-4	5	10	15	20	25	30	35	40	
45	45	43	34	29	26	23	21	20	19	Little danger
40	40	37	26	23	19	16	13	12	11	
35	35	32	22	16	12	8	6	4	3	
30	30	27	16	9	4	1	-2	-4	-5	
25	25	22	10	2	-3	-7	-10	-12	-13	
20	20	16	3	-5	-10	-15	-18	-20	-21	
15	15	11	-3	-11	-17	-22	-25	-27	-29	Increased danger
10	10	6	-9	-18	-24	-29	-33	-35	-37	
5	5	0	-15	-25	-31	-36	-41	-43	-45	
0	0	-5	-22	-31	-39	-44	-49	-52	-53	
-5	-5	-10	-27	-38	-46	-51	-56	-58	-60	
-10	-10	-15	-34	-45	-53	-59	-64	-67	-69	
-15	-15	-21	-40	-51	-60	-66	-71	-74	-76	Severe danger
-20	-20	-26	-46	-58	-67	-74	-79	-82	-84	
-25	-25	-31	-52	-65	-74	-81	-86	-89	-92	
-30	-30	-36	-58	-72	-81	-88	-93	-97	-100	

To use the chart, find the estimated or actual wind speed in the left-hand column and the actual temperature in the top row. The equivalent windchill temperature is found at the intersection of the column and the row. For example, air at 30 degrees with a 15-mile-per-hour wind has the cooling effect of nine degrees. The effect is identical if the air is calm but you are moving.



continuously warms a thin layer of air next to the skin, and the primary function of cold-weather clothing is to hold this warm layer of air close to the body. The widely accepted method of dressing for the cold is to wear several layers of lightweight clothing. In addition to providing layers of dead air for insulation between the fabrics, this system allows you to put on or remove garments as needed to stay comfortable.

The first layer of clothing, the one next to the skin, should draw moisture away from the body, since wetness can lead to hypothermia even if temperatures are above freezing. And bear in mind that you can get wet without falling into water or getting soaked by rain—perspiration from exercise or getting hot under too many clothes can leave you soaked.

Wet clothing can extract heat from the body up to 240 times as fast as dry clothing. Had the boy at the beginning of this story not been wearing a wet shirt, he would not have been nearly as vulnerable to hypothermia. Under windy and chilly

conditions wet clothing can be worse than no clothing at all, so remove damp garments as soon as possible.

For this reason cotton is a poor choice as winter underwear. Cotton thermal long underwear might be acceptable if you are sitting still in a deer blind, but they can be deadly if you get them wet through perspiration or a rain storm. The old wool "union suits" of the turn of the century did a better job of keeping early Texas outdoorsmen warm, even when wet.

Wool does not absorb much water. Even when wet it still keeps you warm, whereas most other fabrics lose 90 percent of their insulative value when wet. Wool and two-layer wool-blend long underwear are available at outdoor stores and through mail-order catalogs such as Orvis and L. L. Bean. Some wools, such as Merino and Angora, are fairly comfortable against the skin.

But just the thought of donning wool underwear will make many folks itch. There are synthetics on the market that do just about as well as wool and are more comfortable.

**Layered clothing is the most efficient way to dress for cold weather. Clothing isn't warm in itself, it insulates the body from surrounding temperatures and retains the body's own heat.**

Cross-country skiers and backpackers have long used fish-net underwear, especially in combination with long underwear made of polypropylene. Fish-net in itself does not insulate, but with another layer over it, the loose net weave acts to form pockets of dead air. Worn under a set of polypropylene long underwear the combination can keep you warm and dry, especially if you are moving about.

Polypropylene is light, elastic and wicks moisture away from your body. And as with most other synthetics, it dries quickly.

Shirt and trousers go over the underwear, be it wool union suit or space-age synthetic. Wool or flannel shirts work well, just buy them with long enough tails to stay tucked in your trousers.

As for trousers, just about everyone in Texas wears either jeans or

khakis. Both stand up well to rough treatment, but being made of cotton or a cotton blend again limits their insulative qualities, especially when wet. A pair of loose wool trousers does better in cold weather.

The next layer should be a vest, either filled with goose down or a synthetic such as Hollofil. Down does the best job of keeping you warm, and it compresses well so you can stuff a down vest into a pack or stuff sack when not in use. But a goose-down vest in a rain storm is a mess. Synthetic fills do almost as well as down and still retain insulative qualities when wet. There are

**Anglers must be especially careful in the winter. If anyone falls in the water, abandon the outing and get indoors immediately. The chart shows hypothermia symptoms as body temperature drops and the relative length of time it takes for symptoms to appear.**

now synthetic pile vests and jackets on the market.

Over all this goes a jacket of some type. Shells or unlined parkas work well over the layers and act to stop wind and rain. New lines appear each season in sporting goods stores and catalogs. One of the more popular, but more expensive, jacket materials is Gore-Tex. This is the trademark of a laminate which is breathable, that is, it has openings large enough to allow small droplets of water vapor to escape from inside but too small for relatively large drops of rain to penetrate. You pay your money and you take your choice.

This covers all but three important parts of the body — hands, feet and head. An uncovered head loses heat quickly. Doctors have said that at 40 degrees, half of the body's total heat production may be lost from an uncovered head. Hands and feet cool more quickly than other parts of the body, so take particular care in select-

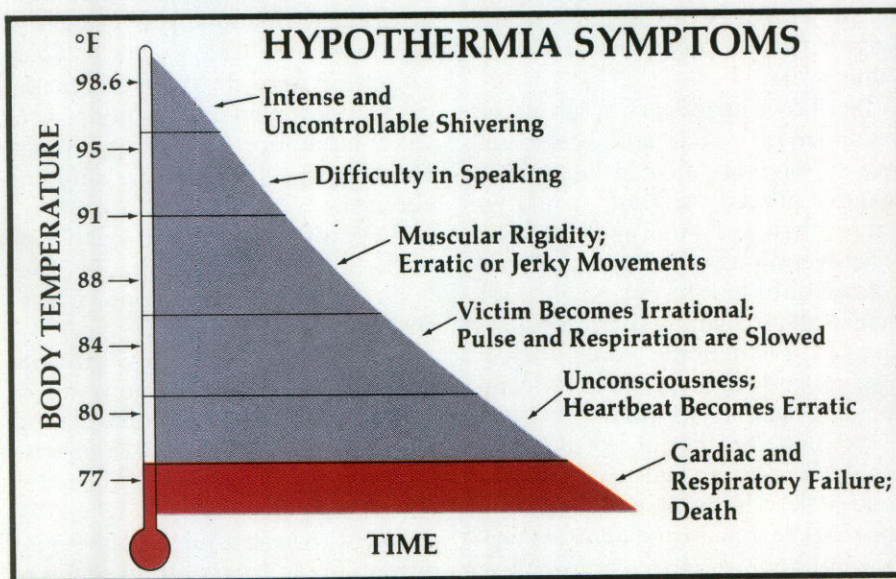
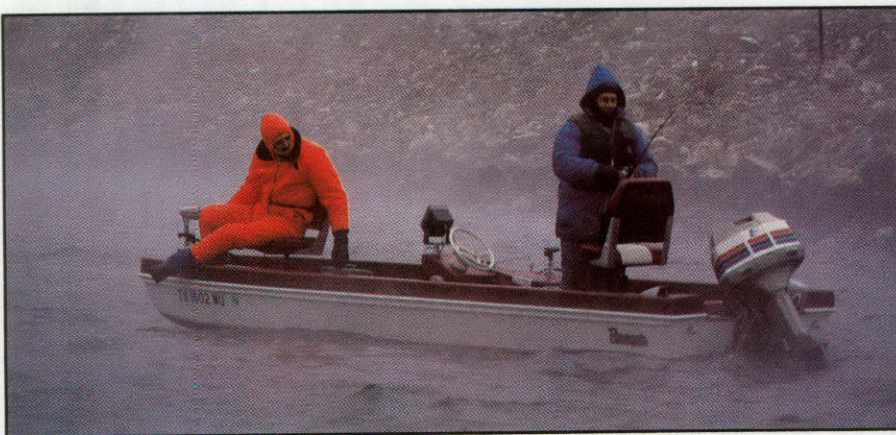
ing gloves and socks. Once again, wool is the best, cotton is the least effective. Two points to remember about cold weather clothing: it must ventilate, in order for air to circulate and carry dampness away from the skin; and it must be loose enough to allow blood circulation, especially at the wrists, ankles and waist.

Dressing properly is an extremely important defense against hypothermia. Also remember to eat well. Food is a vital source of heat. Keep moving to maintain the body's heat production, but know your own physical condition and don't overexert. Immersion in cold water, windchill, physical exhaustion and insufficient food can lead to hypothermia even when temperatures are above freezing. Remember that children are more susceptible than adults and thin people are more vulnerable than heavier ones.

Above all, be alert to symptoms of hypothermia in yourself and your companions any time you are outdoors in the winter. Exposure to the cold can sap a person's energy resources slowly but persistently, and hypothermia is so insidious the victim might not even realize what is happening to him. What's more, since hypothermia can undermine a person's rationality as well as his physical strength, the victim might not take steps to help himself. A person succumbing to hypothermia will show progressive symptoms of shivering, slow reaction, stumbling, clumsiness, confusion, difficulty in speaking and loss of judgment. If your companions show any of these symptoms, get them out of the cold immediately and warm them. Don't delay treatment. Once cold gets past the insulating layer of skin it starts to lower the inner core temperature, and when body temperature drops below 95 degrees it falls at an ever-increasing rate. The victim usually loses consciousness when his temperature nears 80 degrees, and death is almost certain below 78 degrees.

Although frostbite is less common than hypothermia in Texas, it is not unknown. Hypothermia victims are susceptible to frostbite, but hypothermia is not a precondition for frostbite — the freezing of the skin and underlying tissues. Fingers, toes, ears and

Bill Reaves



parts of the face are the most likely parts of the body to freeze. Frostbite usually is divided into two categories — superficial frostbite, or frost nip, which involves only the skin and the layer of cells immediately beneath it; and deep frostbite, which involves deeper layers of tissue, including muscles, tendons and bones. As with hypothermia, be alert to frostbite symptoms and treat them as early as possible. Superficial frostbite is far more easily reversible than deep frostbite. In the first stages of frostbite the skin feels extremely cold, then becomes numb and loses feeling. If the area is not treated it may begin to feel warm, which may be an indication that the injury is progressing from superficial to deep. The skin looks dead, yellow-white or waxy. Superficial frostbite feels stiff on the surface but doughy underneath, since underlying tissue is not yet frozen. When the area becomes hard and feels solid, the frostbite is probably deep. Do not probe an area excessively to determine the extent of the injury.

For superficial frostbite, rewarm the injured area rapidly. Body heat often does the trick: place frost-nipped fingers under your own armpits, place a warm hand over ears or cheeks or warm your toes on a companion's abdomen. Warm water (not hot) also works. Never rub a frostbitten area, whether the injury is superficial or deep. Sharp ice crystals that have formed in frozen cells can pierce delicate structures and do extensive, irreversible damage.

Superficial frostbite that goes unnoticed and untreated can become deep frostbite — an extremely dangerous condition that can lead to loss of the affected limb or even death. Make every attempt to get the victim to a doctor before you try to treat deep frostbite in the field. It would be better to let the victim walk on frostbitten feet for hours or even days than to risk thawing and refreezing the feet. Little damage is caused by walking on frozen feet, but walking on thawed feet could well result in their loss. Remember that thawing and refreezing of superficial frostbite, while not especially desirable, is usually not critical. But the same procedure with deep frostbite can

## FIRST AID FOR FROSTBITE AND HYPOTHERMIA

**FROSTBITE:**

- Cover the frozen part.
- Provide extra clothing and blankets.
- Bring the victim indoors as soon as possible.
- Give the victim a warm drink.
- Rewarm the frozen part quickly by immersing it in water that is warm, but not hot, when tested by pouring some of the water over the inner surface of your forearm. Place a thermometer in the water and carefully add warm water to maintain the temperature between 102 degrees and 105 degrees. Note: If the affected part has been thawed and refrozen, it should be warmed at room temperature (from 70 degrees to 74 degrees).
- If warm water is not available or practical to use, wrap the affected part gently in a sheet and warm blankets.
- Do not rub the part; rubbing may cause gangrene (tissue death).
- Do not apply heat lamp or hot water bottles.
- Do not let the victim bring the affected part near a hot stove.
- Do not break the blisters.
- Do not allow the victim to walk after the affected part thaws, if his feet are involved.
- Since severe swelling develops very rapidly after thawing, discontinue warming the victim as soon as the affected part becomes flushed.
- Once the affected part is rewarmed, have the victim exercise it.
- If fingers or toes are involved, place dry, sterile gauze between them to keep them separated.
- Do not apply other dressings unless the victim is to be transported for medical aid.
- If travel is necessary, cover the affected parts with sterile or clean cloths and keep the injured parts elevated.
- Elevate the frostbitten parts and protect them from contact with bedclothes.
- Give fluids, provided that the victim is conscious and not vomiting.
- Obtain medical assistance as soon as possible.

**HYPOTHERMIA (cold exposure):**

- Give artificial respiration, if necessary.
- Bring the victim into a warm room as quickly as possible.
- Remove wet or frozen clothing and anything that is constricting.
- Rewarm the victim rapidly by wrapping him in warm blankets, or by placing him in a tub of water that is warm, but not hot, to the hand or forearm.
- If the victim is conscious, give him hot liquids by mouth (not alcohol).
- Dry the victim thoroughly if water was used to rewarm him.
- Carry out appropriate procedures as described for frostbite.

**SOURCE: American Red Cross**

**Note:** If no other heat source is available, put the unclothed victim in a sleeping bag with two other unclothed people, one on either side of him, to transfer warmth by contact. Putting a hypothermia victim in a cold sleeping bag is useless.

have tragic results. And by the way, rubbing a frostbitten area with snow is like rubbing a burn with hot grease — don't do it.

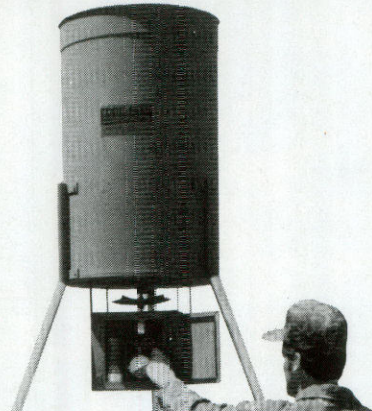
Cold is a more serious stress than most people realize. It can lower efficiency, cause discomfort and turn an

enjoyable outing into a life-threatening situation. Cold, wind and dampness can be deadly. But for those who are prepared, winter is an exhilarating time to be outdoors. Just treat cold weather with the caution due any unpredictable companion. \*\*

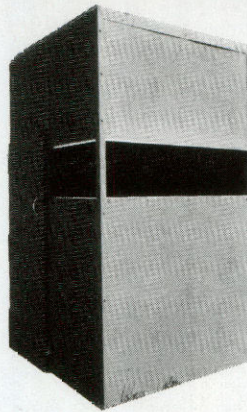


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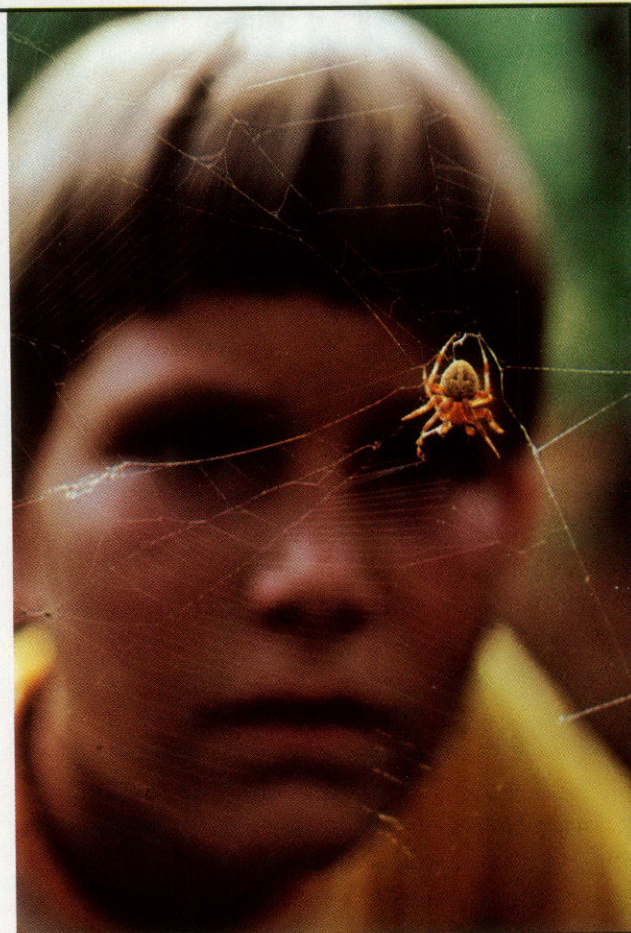
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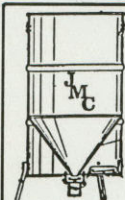
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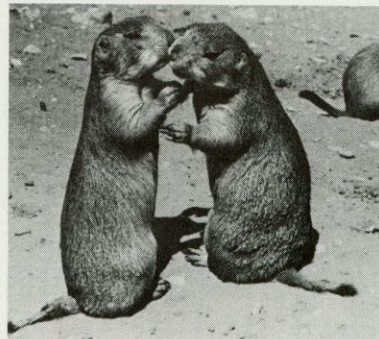


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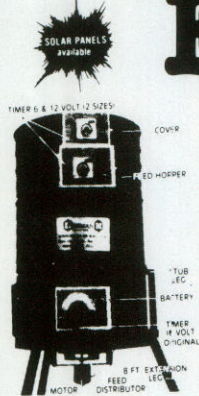
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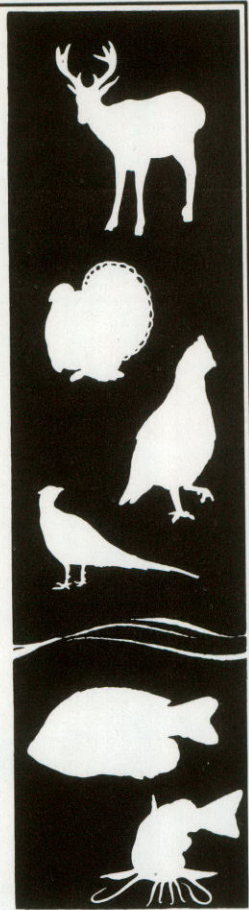
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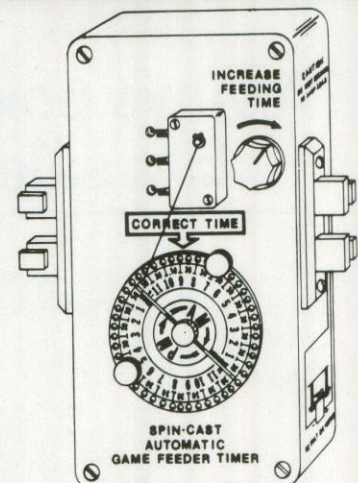
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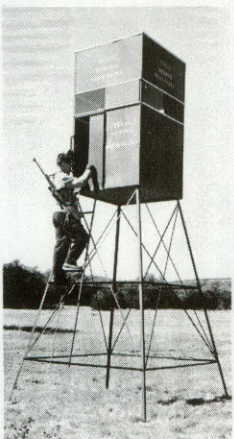


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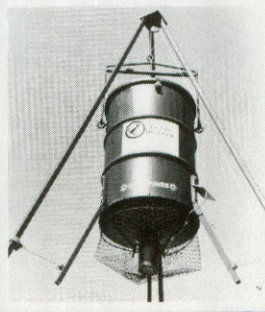


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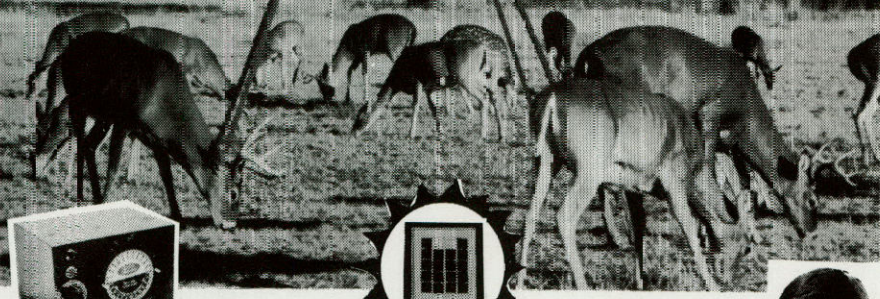
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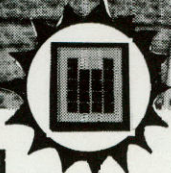


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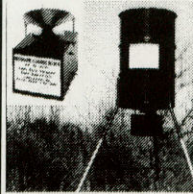
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# Letters to the Editor

## Dinosaur Valley Footprints

Your article on Dinosaur Valley State Park in the July issue left out one of the more interesting aspects of the fossil tracks preserved there. Drs. C.L. Burdick, R.T. Bird and A.E. Wilder-Smith report the presence of tracks that appear to have been made by a hominid alongside the prints left by the giant reptiles (see "Man's Origin, Man's Destiny" by Wilder-Smith). Of course, the presence of human footprints in the Cretaceous would cause problems for evolutionary models of origins. Unfortunately, most biologists accept the evolutionary model as fact; therefore, problems with the model rarely receive the attention they should, particularly in publications that appeal to the public at large, such as yours.

My wife and I enjoy your magazine as we are Texans at heart, although we must be absent from the state while I finish my PhD in biology.

Robert Bauman Jr.  
Monterey, California

## Despicable

I can no longer in good conscience subscribe to *Texas Parks & Wildlife*. I have long been a supporter of the movement for preservation of, and humane treatment of all animal life. Your magazine has put more and more emphasis on guns, hunting and ads for the gear for such. Your July issue showing youngsters from the age of nine years training in the use of guns is despicable.

The huge sums of money spent on all this could well be used for the relocation, feeding and preservation of our diminishing wildlife.

Magaret Rouillard  
San Antonio

## Gafftopsail Fishing

As a native of Corpus Christi, I have pleasant memories of chasing fish that were working under birds in Corpus Christi Bay. Many of these experiences involved catching gafftopsail catfish in a manner not mentioned in your article in the August issue. Since it was so much fun, I would like to share it with your readers.

We often found schools of fish under gulls. There were skipjacks on the surface and gafftopsails on the bottom, presumably feeding on bits of baitfish dropped

by the skipjacks. On such occasions, almost any artificial bait cast into the schools would catch either a skipjack near the surface or, if the bait managed to sink past the skipjacks without a strike, a gafftopsail near the bottom. Gafftops were hooked and landed on plastic worm jigs, spoons and various sinking plugs, all without addition of any natural bait on the hooks.

This suggests that there is an element of visual hunting in the gafftop's feeding habits, at least in clear water, in addition to the location of food by means of sensing through their barbels as described in the article. It has been proven that gafftops can be caught on artificial baits as well as cut or live natural bait, and anyone who has caught a gafftop can attest to their excellent fighting ability.

Skinned gafftop fillets are excellent eating when boiled and mixed into a salad. Since I know of no satisfactory method of preparing the bony skipjacks, they were returned to the bay to fight again.

I have discovered no saltwater catfish in Australia, although there is a tailless catfish called a cobbler. There are freshwater catfish in the tropical regions of Western Australia.

Hank Schleider  
Bunbury, Western Australia

## Lead Poisoning

I agree that the Murphree Area was an ideal location for the "dead duck" test described in "Lead Kills" in the July issue. I understand there is a healthy population of alligators and coyotes there. Several retriever dogs were lost to alligators. I wonder what becomes of predator carcasses after they have consumed thousands of these lead-poisoned ducks. I imagine they disappear into thin air just like the ducks.

August Bordovsky  
Houston

## Lead versus Steel

Mr. Taylor's letter in your September issue made some valid points. Since I have been using steel shot, I have lost a lot more ducks due to crippling. The

steel shot does not flatten out to provide the needed shocking power. It passes right on through, allowing the ducks to glide out of retrievable range. I have had to shoot crippled ducks much more often than I did when I was hunting with lead. Many of the hunters I have spoken with have had the same results. It does not seem wise to lose so many ducks.

Many hunters have given up duck hunting because steel shot ruins the barrels of fine guns. Steel shot also is twice as expensive as lead, and no reloading components are yet available. The law and steel shot should be restudied. I just hope someone has an answer, for the hunter's sake.

Coy L. Collins  
Port Neches

Thanks to Jim Cox for the informative article "Lead Kills" in the July issue. Waterfowl hunters, even the few with fine double-barreled guns who should not use steel shot—or magnum lead loads for that matter—must give more consideration to the birds and less to minor inconveniences.

Some hunters say the so-called "Lacassine Study" showed that steel shot caused hunters to cripple more birds than would be saved by reducing the use of toxic lead shot. A companion study entitled "A Lead Toxicity Study of Waterfowl on Catahoula Lake and Lacassine National Wildlife Refuge" was carried out by the same research group but was not circulated to the public. That study identified more than 829 birds as dead or dying from lead poisoning caused by eating lead shot. That number of birds was picked up in **one** season, and outnumbered the birds crippled by both lead and steel shot during the **two** hunting seasons covered by the "Lacassine Study" by more than 27 birds.

Antihunters are laughing up their sleeves at waterfowlers who reject steel shot before learning the facts. I just hope hunters, who always have led the conservation movement, wake up before it's too late.

Any of your readers who would like a copy of the companion study or the "Lacassine Study" can write Sportsmen's Clubs of Texas, 311 Vaughn Building, Austin, Texas 78701.

Alan Allen  
Austin

## His Own Subscription

We have enjoyed your great magazine for several years now and wait for it every month to read the articles and look at all those beautiful photographs. We have an 11-year-old friend who comes to visit us quite often, and the first thing he does is grab the new issue and read the articles that are of interest to him. Then he gets all the old issues off the shelf and goes through those. He enjoys the magazine so much that I am enclosing an order for a gift subscription in his name.

Mrs. Rudy Garza  
Sebastian

## Seashell Uses

I enjoyed the article on seashells in the July issue, particularly the part about past uses of shells by various civilizations. I was surprised that no mention was made of two ways I have used shells for about 40 years.

After a storm hit Freeport Beach, a great many large, heavy clam shells littered portions of the beach. I prepare seasoned crabmeat and place it in the shells to bake. Over the years, I've used these old shells many times in lieu of crab shells for delicious stuffed crab. After each use the clam shells are easily cleaned for the next time.

Also, I have used the concave side of oyster shells for ashtrays for many years. To make them steady I put three small dabs of silicone rubber on the outside. Before I had silicone rubber I'd attach the shell to a little wooden block with glue, after digging out an indentation in the block to accommodate the shape of the shell.

Morris Gydeson  
Hempstead

## Plant Names

Your magazine uses standardized animal and bird names — one English name per species. These names were established many years ago and now are used throughout the United States. However, plant names apparently are unedited in your publication; you seem to accept whatever English name comes in with the photo or story. For a source of standardized plant names, I suggest "Standardized Plant Names" or "Texas Plants, A Checklist" by F. W. Gould.

E. J. Dyksterhuis  
Bryan

## Flowers, Birds and Insects

We thoroughly enjoy your magazine, even though we neither fish nor hunt. We do enjoy identifying wild flowers and birds on our small place west of Austin, so we would appreciate articles on wild flowers, birds and insects. Keep up the good work.

Virginia Lovett  
Austin

## Fascinating Texas

In June I had the pleasure of meeting my pen pal from Italy while she was visiting her brother in Illinois. We exchanged gifts, and among my gifts to her were the first six issues of your magazine from 1982. She was fascinated by all the beautiful pictures, especially the pictures and story on the armadillo. She was amazed that such a prehistoric-looking creature actually exists.

I'm anxiously awaiting a story on Lake Texana State Park here in Edna so I can send her a copy of it. She already has some Lake Texana souvenirs.

Shirley Odell  
Edna

■ We had a story on popular Lake Texana State Park in our October 1982 issue. Thanks for introducing your friend in Italy to our magazine.

## Man-of-War Stings

Page 21 of the July issue states that the treatment for Portuguese man-of-war stings is an unseasoned meat tenderizer containing monosodium glutamate. Monosodium glutamate is a taste enhancer and as such does not tenderize. I believe that the ingredient that actually does the tenderizing is papain, a derivative of papaya fruit. It is very effective in treating these stings.

R. M. Moore  
Corpus Christi

## High-Priced Meat

"Bighorn Brood Pen Dedicated" in the August Outdoor Roundup should help point out the cost of predators. After all the money and years spent learning that it was impossible to grow bighorn sheep and predators in the same area, somebody now wants to raise bighorns in a predator-proof pen to turn out to the hungry critters.

The \$200,000 spent for fencing could be invested at 10 percent interest and

earn \$20,000 a year. The predicted annual bighorn production of 20 sheep makes the cost per head \$1,000, just for the initial fencing. That's high-priced meat.

For \$1,000 one can buy a whole pickup load of animals for the critters instead of just one bighorn sheep. So come now, you critter lovers, you can get 20 times as much meat for your money by feeding your critters domestic sheep, goats, cows or horses. Put another way, you could have 20 times as many predators around for the same cost. Think about it.

Millard Richmon  
De Leon

## Redfish Factory

Your article in the September issue about the John Wilson Marine Fish Hatchery was very good. I'm glad to know there are still good people who take pride in our great state and work for things like getting our fishing built back up to what it used to be.

I would like to find out how to become a member or supporter of the Gulf Coast Conservation Association. They are doing an excellent job.

Marshall Hefley  
Houston

■ Contact the Gulf Coast Conservation Association at 333 West Loop North, Suite 110, Houston 77024, telephone 713-688-6840.

## Freshwater Flatfish

Last spring, I caught a flounder in the Trinity River near Liberty. It was about two inches long and was caught in a seine while I was fishing for bait. I thought this was odd; I knew flounder were being raised in fresh water but I didn't know about the Trinity River.

Gary W. Skiles  
Cleveland

■ Our coastal fisheries biologists said it is unusual to find a flounder that far upstream. A tidal surge of salty water could have sent it upstream. Or it could have been another flatfish similar to a flounder, such as a hogchoker. It is more tolerant of fresh water than a flounder and the young of the species frequently are sold in stores as "freshwater flounder." Young flatfish are difficult to distinguish; the hogchoker is striped, whereas the flounder is spotted.



## Creationist Views

The letter from Tom Estes in the August issue may seem innocent at first glance, but the request for voluntary censorship is neither innocent nor isolated. Creationists have been campaigning nationwide to replace scientific research and discovery with their religious doctrines. At this they have been quite successful, as evidenced by recent changes in school textbooks. References to evolution in biology texts have been slashed as publishers respond to pressure from creationists. Doubleday Publishing Company deleted all mention of the word "evolution" from its "Experiences in Biology" textbook, with one of its executives explaining on National Public Radio, "The reason for self-censorship is to avoid the publicity that would be involved in a controversy over a textbook. We'd like to sell thousands of copies."

In the celebrated creation-science trial held in Arkansas early in 1982, U.S. District Judge William Overton ruled decisively that creationism is not a science at all: "... the essential characteristics of science are: (1) It is guided by natural law; (2) It has to be explanatory by reference to natural law; (3) It is testable against the empirical world; (4) Its conclusions are tentative, i.e., are not necessarily the final word, and (5) It is falsifiable. Creation science ... fails to meet these essential characteristics." Also, said Overton, "No group, no matter how large or small, may use the organs of government... to foist its religious beliefs on others."

I hope *Texas Parks & Wildlife* will continue describing the state's natural wonders in accordance with the best scientific data available. To bow to fundamentalists who use the Bible as a science book would be a step back to the Middle Ages and an insult to those readers who find no conflict between science and religion.

Bob Schumacher  
Texarkana, Arkansas

Many of us who are subscribers to your magazine, such as Tom Estes, whose letter appeared in your August issue, seriously question whether evolution as currently presented is accurate. There is a tremendous amount of data that would indicate that the earth is quite young and that evolution is, at best, a very poor and unproven theory. Your recent article containing information about Glen Rose made extensive reference to the many fossils found there. The article attributed great age to these fossils, obviously assuming the evolutionary time scale to

be proven fact. Many reputable scientists are aware that the Glen Rose site contains fossilized man and dinosaur prints side by side. The evolutionary theory says this is impossible, and that dinosaurs were dead eons before man "appeared." Why no mention in the Glen Rose article that this park is one of the primary evidences that men and dinosaurs lived contemporaneously, and that perhaps the evolutionary and ancient age theories concerning the earth's history are both highly doubtful speculation?

I enjoy your magazine, but comments related to whether the earth is young or old should be labeled as theory, not fact. It is a fact that man and dinosaur fossils have been found side by side at Glen Rose. It is not a fact, only a theory, that the fossil remains are 500 million years old.

Steve Muller  
Bandera

## More Romines

J. C. Romines' story in the September issue about a pickup-driving deer is one of the funniest stories I ever read. Maybe you could get him to write something else sometime.

John C. Breed  
Houston

## Blacktip Preparation

I take issue with the response in the August issue to Kenneth Wagner, who wanted to know how to cook blacktip shark. You stated that "The meat requires no special treatment." 'Tain't so, my friend.

I learned how to clean blacktip sharks from Jimmy Shelton and Bill Long of the U.S. Fish and Wildlife Service at Matagorda Island. They suggested you cut the tails off blacktips when they are caught so they will bleed. When making fillets be sure to cut off the belly or stomach cavity—it's fairly thin and soft. I am told the reason for this is that all sharks have a urinary system that is described as primitive.

Filleting is easy since the meat cuts away from the skin nicely. Our sharks were small and the chunks cut off were of nice size. Jimmy Shelton had us wash the meat, put it in a bowl of water and ice for one hour, drain it and put it in the ice chest to keep it cold. We followed his instructions and had delicious meat, better than trout to my mind. It also is recommended that shark not be salted since the meat is salty enough.

Philip D. Hinton  
Houston

## Hate to Lose a Bet

Enclosed is my check for \$15 for two years of *Texas Parks & Wildlife*. I have every copy of your magazine since April 1943. At that time it was 10 cents a copy and 50 cents a year.

I am 75 years old and still hunt and fish. I took my first deer in 1926, and still have the head on my wall.

It sure is hard to decide if I want to save a buck by subscribing for two years, but I'll gamble that I'll live two more years. I hate to lose a bet.

William G. Scheidt.  
San Antonio

## Not in Crane

I was very interested in "What's in a Name" in the August issue, but was amused by the picture on page 10.

I have lived in Crane, Texas, for two years, and the only cranes I have seen are made of cardboard and represent the athletic teams, the Golden Cranes. I laughed out loud when I saw the Crane, Texas, sign standing in water and the tall grass. We have had about two inches of rain this year in Crane. The only green grass is some that has been watered at least twice a week. And people who want to fish and water-ski have to travel to San Angelo, Brady or some other place that can get enough water for a lake.

That scene with the cranes, water, tall green grass and a tree could be El Campo or Eagle Lake, but not Crane. I have seen many cranes in the rice fields in those two areas.

I do enjoy *Texas Parks & Wildlife* and have saved every issue for years.

Mrs. Dixie Grimes  
Crane

## BACK COVERS

**Inside:** Texas game wardens stay busy all year, but the opening of hunting season means especially long days and nights for these men and women. A complete list of game wardens by county, along with their telephone numbers, begins on page 24. Photo by Leroy Williamson.

**Outside:** Honey Creek and its numerous feeder springs and seeps create a refreshing scene in Honey Creek Ranch Preserve. Owned by the Texas Nature Conservancy, the area represents an example of the Texas oak-juniper savannah found only in the Hill Country. (See story on page 14.) Photo by Bob Parvin.



