

# TEXAS

PARKS & WILDLIFE



November 1984

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**Front and Back Covers:** If this is November it must be deer season in Texas. This handsome South Texas buck is the dream of every hunter and the product of good range and wildlife management. See story on page 30 on the importance of such management plus a comparison of this whitetail buck and his West Texas relative the mule deer on page 22. Photo by D.K. Langford.

**Inside Front:** The season on Canada geese opened October 30 in the western two-thirds of Texas and November 3 in the eastern third of the state. Photo by Wyman P. Meinzer Jr.

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## BROWN PELICAN

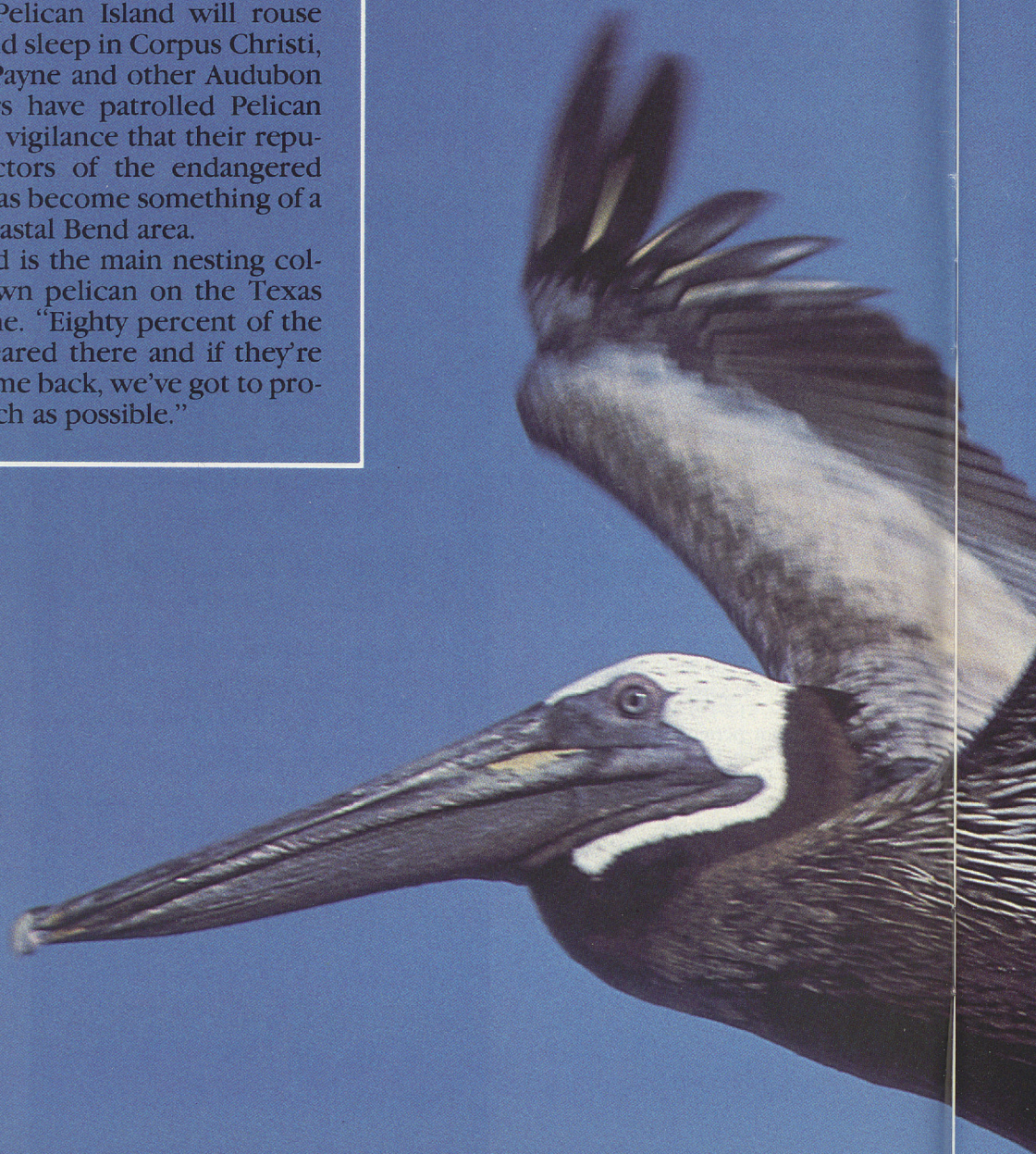
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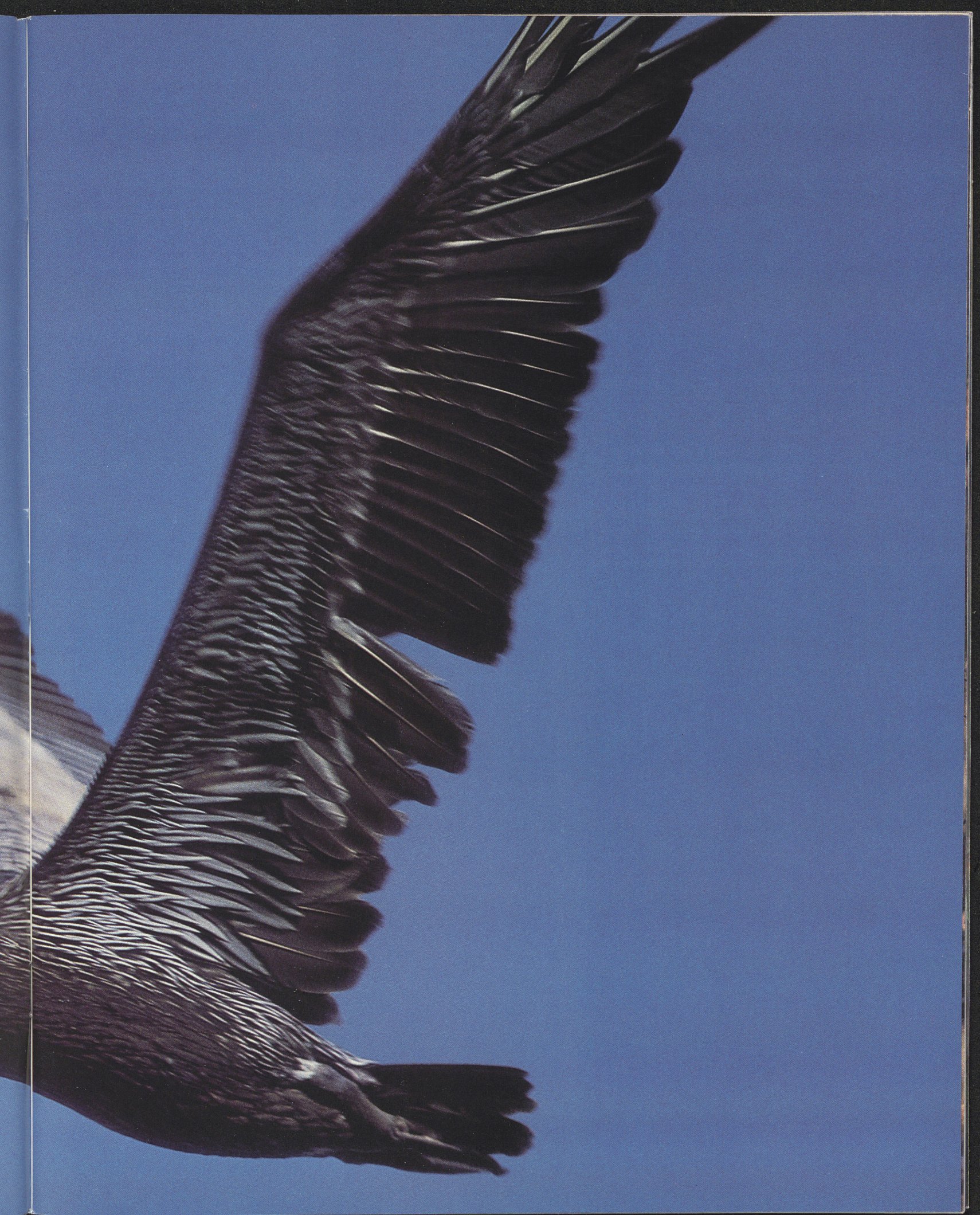
# On the Way Back

Article by Russell Middleton  
Photography by Bill Reaves

**E**milie Payne, warden for the Audubon Society, laughs when she hears the rumor that the sound of a footstep on Pelican Island will rouse her out of a sound sleep in Corpus Christi, 10 miles away. Payne and other Audubon Society members have patrolled Pelican Island with such vigilance that their reputation as protectors of the endangered brown pelican has become something of a legend in the Coastal Bend area.

"Pelican Island is the main nesting colony for the brown pelican on the Texas coast," says Payne. "Eighty percent of the fledglings are reared there and if they're ever going to come back, we've got to protect them as much as possible."





One of the most important steps was the establishment of Pelican Island as a bird sanctuary. This 1¼-mile-long and one-half-mile-wide spoil island (created by dredge material during construction of ship channels) is owned by the Nueces County Navigation District, but administered by the Audubon Outdoors Club as a wildlife sanctuary. The brown pelican and other colonial nesting birds, such as ibis, spoonbills and herons, find a refuge here from marauding coyotes and raccoons that could deal a major setback to a brown pelican recovery.

However, the hazard that sends Emilie Payne flying across Corpus Christi Bay in her Boston Whaler isn't predatory wildlife.

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*About 100 pairs nest in the Coastal Bend and more than twice that number migrate in from Mexico. Still endangered, the brown pelican has returned from the brink of extinction.*

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"The greatest danger to brown pelicans is man," Payne continued. "A boat landing on the island to discharge passengers or even worse, the family dog, can scatter large numbers of nesting birds within minutes. And a few minutes in the hot Texas sun is all it takes to kill small chicks or unhatched embryos." The Audubon Society posts warning signs around the island to ward off such intrusions and maintains a boat patrol as added insurance.



*Pelican Island is the main nesting area where 80 percent of the fledgling brown pelicans in Texas are reared.*

"Also, we've had problems with shrimpers anchoring nearby and taking potshots at the birds, and helicopters flying much too close," added Payne.

Indeed, this majestic but misunderstood bird has suffered much at the hands of man. Pesticide poisoning and persecution by fishermen who mistakenly thought brown pelicans fed on game fish reduced their numbers from 10,000 in 1920 to fewer than 50 in 1963. In the same year the entire brown pelican population of Louisiana was exterminated by pesticide poisoning and many ornithologists

simply wrote off the few remaining stragglers in Texas as doomed to a similar fate. A 1968 article in *Texas Parks & Wildlife* magazine concerning their plight was grimly entitled "Brown Pelican Epitaph."

**T**oday the brown pelican is usually visible from any of the public piers and jetties in Port Aransas and a few other locations in the Coastal Bend area. They tend to be somewhat wary of man, but with a pair of binoculars you can easily watch them making their spectacular dives after fish or winging across the sky in



picturesque flights of a half dozen or so. About 100 pairs are now nesting in the Coastal Bend region and more than twice that number migrate from Mexico to Texas annually. Although still endangered, the brown pelican seems to have returned from the brink of extinction in Texas.

What brought them back? According to David Mabie of the Texas Parks and Wildlife Department at Rockport, "Protection, public awareness and a decrease in the use of pesticides has made the difference."

Mabie cites the widespread use of DDT beginning in the late 1940s as a major cause of the decline in the brown pelican population (an earlier decline in the '20s and '30s is attributed to fishermen). An Audubon Society survey in 1950 found some 768 adult birds in Texas. By 1959 the count was 452. In 1963, only 14 pairs could be found nesting on the entire Texas coast and the next year none at all.

"DDT interferes with calcium metabolism," says Bruce Thompson, also with the Texas Parks and Wildlife Department. DDT doesn't usually kill adult birds outright. It concentrates in their bodies because it already has concentrated in the bodies of the pelicans' favorite food, menhaden, a small filter-feeding fish. Menhaden trap plankton for food, which have absorbed DDT residues from runoff. The result was, "pelicans laid eggs very much prone to breaking in the nest," says Thompson.

DDT was banned in 1972, and in 1973 the brown pelican was put on the endangered species list, giving it the added benefit of federal protection. Eggshell thickness and the numbers of fledglings have increased slowly but steadily since then. From the dark years in the '60s when no nesting occurred at all, the numbers of native fledglings rose to 168 in 1983.

Thompson still considers DDT a potential threat, however. "For one thing it was never outlawed in Mexico," he says, "and large numbers of pelicans migrate between Texas and Mexico. Also, it is possible that small amounts of it continue to be used surreptitiously

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*Adult pelicans (top) usually are wary of man, with good reason. Juveniles (right) find refuge on Pelican Island from man and such predators as coyotes and raccoons.*

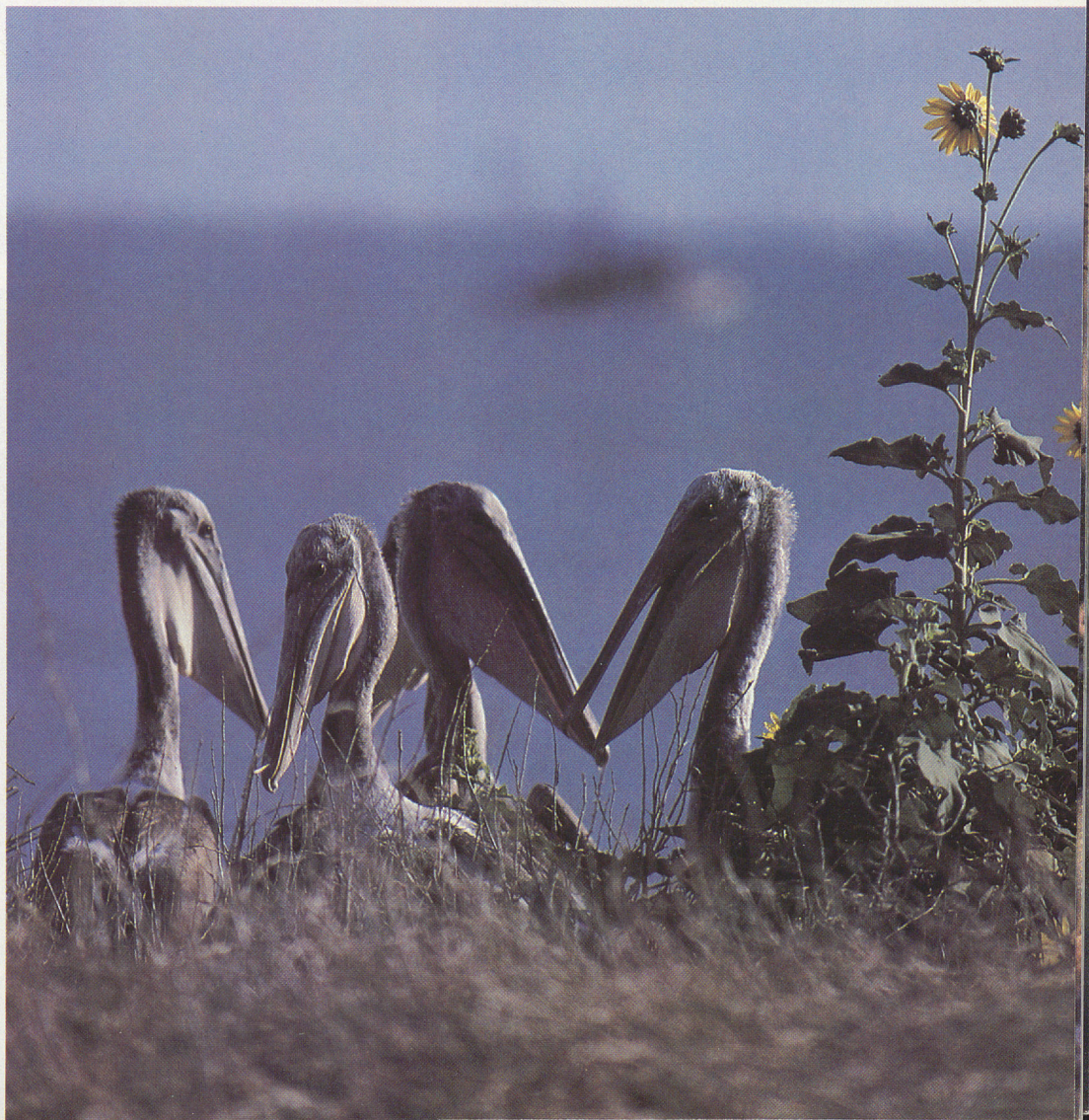


here in Texas."

With the reduced threat of DDT and other pesticides such as endrin, which annihilated the Louisiana brown pelican in 1963, attention has turned toward careful monitoring and the possibility of starting new colonies.

The Audubon Society, U.S. Fish and Wildlife Service, Texas Parks and Wildlife Department and other volunteers

combine forces at least once a year to band, count and carefully inspect the brown pelican nesting colonies. They gently trap as many young birds as possible with nets and inspect them for parasite infestation and any other health problems. Plastic bands, color coded to indicate the year, are applied along with an aluminum U.S. Fish and Wildlife Service band. These bands are





an important source of information on the habits of birds and, if one is found, the band and the circumstances of the find, such as date and location, should be sent to the Bird Banding Laboratory, U.S. Fish and Wildlife Service, Laurel, Maryland 20811.

The slow but steady recovery of the brown pelican in Texas has turned thoughts toward the possibility of reintroducing the bird to its former range. With the exception of a few escapees from Sea-Arama in Galveston, there are no brown pelicans north of Matagorda Bay.

"We are studying past and present nesting sites with the idea of expanding their range," says Mabie. Importation

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*Once a year volunteer workers gently herd the young pelicans into nets and inspect them for parasite infestations and other health problems prior to banding.*







of brown pelicans from other areas is not currently being considered as an alternative. With more than 100 fledglings produced per year, Texas Parks and Wildlife personnel feel that the brown pelican range can and should be extended with native stock.

Importation of nonnative birds can be difficult and expensive. Louisiana imports 100 fledglings per year from Florida and has spent more than \$3 million getting their state bird re-established. Birds brought from one climate or locality to another don't always adjust well because they may be used to feeding and breeding on cycles that don't fit the weather or the food supply of the new site. Even relocating native birds can be tricky.

"There just aren't all that many suitable sites," says Emilie Payne. "Pelicans need to be safe from man and predator alike and a lot of former nesting sites

have become accessible to both because of new construction and siltation. Predators can get to some of these nesting sites that they couldn't have reached years ago."

Payne feels that some of the remote spoil islands near Port Mansfield or elsewhere in the Laguna Madre might make excellent new sites. Other possibilities are on or near Carrol Island in San Antonio Bay, the only other active nesting colony on the Texas coast.

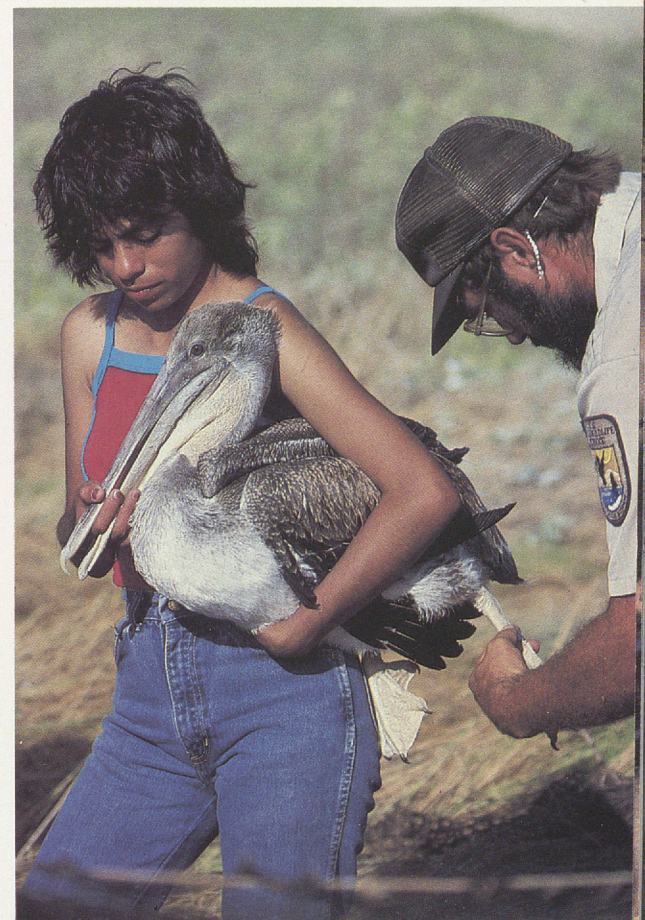
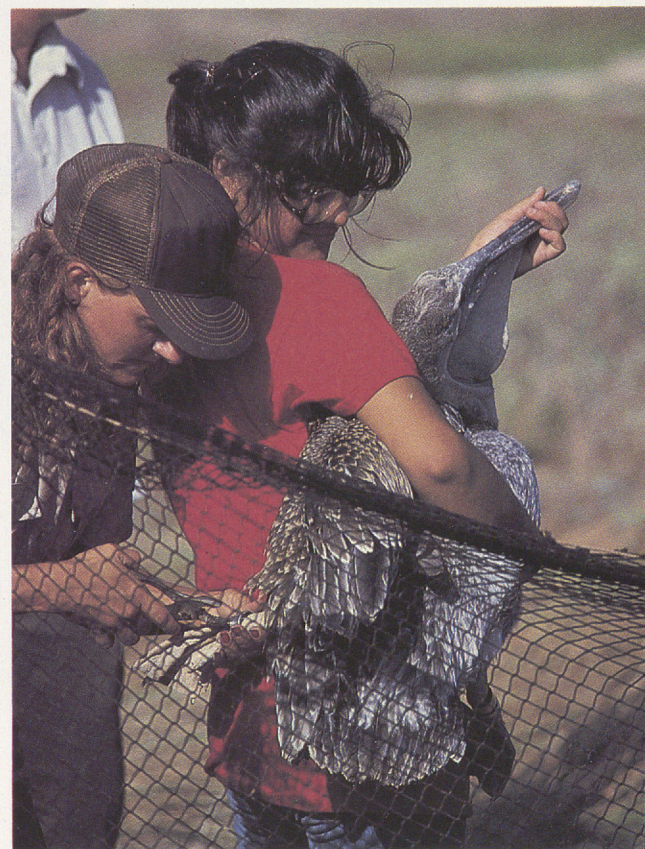
"Brown pelicans are such a unique bird," says Payne, "we just can't let our guard down now."

The brown pelican is unique even in the diverse world of birds. Its long, prominent bill and expressive eyes make the bird recognizable even to young children, but it is unique in other ways. Its dramatic method of feeding by plunging bill-first into the water from as high as 50 feet would injure most other birds, but air sacs just under its skin cushion the impact. The characteristic wingbeat that makes a brown pelican so easy to spot at a distance, is one of the slowest among birds. Its life span, which may have helped the species survive its reproductive problems from DDT, can be 30 years or more. The brown pelican's high sensitivity to chemical and pesticide pollution has often made it a symbol of marine environmental causes. Some ornithologists regard this bird as an indicator of the health of the nearshore ecology. Where pelicans are thriving, pesticide pollution is likely to be low.

Brown pelicans are also opportunistic feeders and sometimes mistake a fisherman's bait for an easy meal. If a pelican is hooked, it should be carefully reeled in and the hook removed if possible. Famed ornithologist Ralph W. Schreiber estimates as many as 700 pelicans die in Florida each year by entangling trailing fishing lines in trees. In Texas where the brown pelican population still struggles to recover its former range, avoidable losses such as these must be cut.

With continued strong protection and public awareness the brown pelican once again may add its special charm to the entire Texas coastline. \*

*Brown pelicans are banded to obtain valuable information on the habits and movements of these endangered birds.*



# Survival in the Outdoors

Article and Photography by David M. Knotts

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One of our greatest woodsmen, Daniel Boone, would never admit publicly that he had ever been lost, but privately would say that on occasions he'd been "a might bewildered for a few days."

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**G**etting lost in the wilderness today usually is attributed to the inexperienced or unprepared, but it can happen to the most accomplished outdoorsman. Someday, somewhere, whether hunting, fishing, camping or hiking, you are likely to get lost. This need not scare you or prevent you from participating in outdoor activities, but it should serve as a warning.

At one time or another, most outdoorsmen who participate in fairly ordinary activities have been closer to disaster than they realized. Fortunately, most of the potential crises work out fine and we shrug off the momentary sense of danger. But, then up crops the broken ankle, the dry radiator, wheels buried to the axle in sand or mud, an empty gas tank, a flapping rudder or a serious turn in the weather and suddenly things are different. The problem in itself may not be deemed serious, but the situation could snowball when you realize you are alone, lost, stuck, hurt, cut off. You are on your own—and you need help.

The secret to survival is preparedness. The Boy Scout motto, "Be Prepared," should be adopted by all who are actively involved in the outdoors—in spirit as well as practice. When asked by a young scout "Prepared for what?" Lord Baden-Powell, founder of scouting and a skilled woodsman, replied, "—why, for any old thing."

To the sportsman, "any old thing" is defined as anything that would jeopardize his safety, from injuries in the field to getting lost or stranded. It also includes prevention.

There is much to the old adage that an ounce of prevention is worth a pound of cure. Prevention begins with certain pretrip measures taken in anticipation of an emergency. This should include the development of contingency plans in the event you encounter bad weather or have an accident. A travel plan filed with a relative or local law enforcement officer should contain the four W's: What are you doing? Where are you going? Travel route? When is the activity scheduled? Who is with you?

Other vital statistics, such as names of companions and their physical limitations, equipment and any probable delays you may encounter, should be noted. Once this is done and you do encounter a delay, knowing that someone is going to be looking for you will go a long way in boosting morale.

Prevention also includes the responsibility to heed warnings and the foresight to correct potential problems. It only takes a few minutes to top off gas tanks, stow appropriate emergency gear, fill canteens, ask about weather conditions and update a map. It could take hours or days for a rescue.

Sound judgment must prevail over challenges to your daring and self-esteem when you are advised not to canoe rapids beyond your rated ability or attempt to weather an approaching storm. Texas is a land of contrasting terrain and temperature with varying local conditions. Follow the advice of those who have had more experience. It is far better to cancel or postpone an activity for a few days and be alive and well than to be injured or killed.

**S**everal factors can generate circumstances that could threaten your survival. The forces of nature are among the chief reasons why people find themselves lost, bewildered or in perilous situations. Once-familiar landmarks or map reference points become distorted or totally invisible from snow, fog, rain, blowing dust or rising water.

Injuries, ranging from a sprained ankle to a gunshot wound, can render you completely helpless.

Modern technology also is involved. Today's sportsmen and adventurers live in a time and country where highways and a variety of transportation methods connect them to recreational destinations in a matter of hours, instead of the days, months and years our forefathers had to spend traveling between two points—often blazing their own trail. Such a system can place a person who lives a mundane suburban life into the great outdoors—a national forest, a remote segment of a free-flowing river, the desert or the hunting lease—often in less than half a day.

With the aid of trail bikes, four-wheel drive vehicles and light aircraft, more and more sportsmen are frequenting backcountry that heretofore was inaccessible. Such increased usage tilts the odds in favor of the probability that if you pursue an outdoor activity long enough, at some point you are going to be faced with a challenge to your survival.

The difference between Daniel Boone and many of today's sportsmen was his ability to fend for himself using the resources of nature to survive. The



pioneers lived in an era when their daily existence necessitated coping with natural hazards threatening their survival. They learned to feed and clothe themselves and make tools from their surroundings.

Unfortunately, when faced with life or death circumstances, very few people today have the skills necessary to survive. Modern man has developed a dependency on manufactured goods and the skills of others. Without these goods and skills, he often becomes helpless, and in a survival situation, this may mean the difference between walking out or being carried out.

**O**ne of modern man's popular notions is that he can outfit himself for wilderness travel with all the gear necessary for survival. This may include a variety of items neatly condensed into what is known as a survival kit.

There are survival kits big and small, commercial and homemade. Some contain the basics while others have enough gear in them to allow a party of four to live like kings on an iceberg. Selecting one is a worrisome task for most concerned sportsmen.

Not too long ago, following a presentation on wilderness survival, I was asked by a well-known international big game hunter what I would recommend for the "perfect survival kit." He went on to specify that money was no barrier.

"Suppose," he said, "I was hunting mule deer in the Rockies and I'm on horseback following some distance behind my guide. Snow is falling, as well as the temperature and visibility. I come to an icy stream, which the guide and his pack animals have just crossed, dropping out of sight down the trail. Halfway across the stream my horse slips and stumbles, throwing me headlong into the cold water. Spooked, the horse takes off down the trail after the guide who hears him coming and thinks I'm still aboard. The snow is falling heavier now, with winds out of the north picking up rapidly, and I am wet through and through with no prospects of immediate help. It's obvious that I'm facing a dangerous situation. If I had the perfect survival kit, what would be in such a kit to help me through this situation in relative comfort until rescued two or three

days later?"

My instant response was, "How big do you think the perfect survival kit would be—and where do you think you would have put it? Most likely it would be in the saddle bags of your horse going down the mountain!"

The problem with survival kits, like any key piece of equipment, is their notorious reputation for not being there when you need them. The best kit in the world is of no value if you don't have it with you. If the kit is not



*Outdoorsmen young and old should know how to build a fire and shelter, learn how to use a map and adopt the Boy Scout motto "Be Prepared," since preparedness is the secret to survival.*

lost with the rest of the gear when the canoe tips, it's probably because it was left behind at the base camp. Since most lost hikers and hunters intended to go only a short distance from camp when they became disoriented or stranded for one reason or another, they didn't bother to make any emergency preparations. A greater number of people simply discard much of their kit's contents because they can't get them repacked after opening them or fail to replace items that may have been used previously. True to Murphy's Law, these items usually are the ones that are most needed at the time.

However, the major objection to the survival kit by most experts is the false sense of security it conveys. This is especially true with inexperienced and



beginning outdoorsmen. A survival kit and its contents are only as good as the person using it. Trying to figure out the proper use for all those little treasures crammed into a neatly designed container can be traumatic, especially when you are under stress.

The compass is a perfect example. A random survey of sportsmen who carry a compass reveals that most do not know how to orient the device for field use. When it comes to using the compass, most are like Snoopy in one of the Peanuts "Beagle Scout" series; when

he became lost, he simply laid the compass down on the ground and said, "Go ahead compass and I'll follow."

Survival is a frame of mind, not equipment alone. It is a positive mental attitude backed up with a real sense of security born of a knowledge of self-sufficiency. It is skills that can be applied in an emergency situation that are forever with you and cannot be laid aside and lost like a pocket knife. To put it simply, the perfect survival kit is in your head.

Such training can go a long way in alleviating one of the real dangers of being lost—your reaction to the situation. If you can keep calm and control your fears, you will be able to think properly. Keeping calm is as essential as water, food and shelter. It is the fourth element in the basic requirements for wilderness survival.



Panic is a powerful force brought about by fear and anxiety. When coupled with fatigue and the loneliness of isolation, it causes many people in a survival situation to lose their ability to think and reason. The mind, particularly when under stress, fails to function with all its circuits. This fact was brought home to me when I got turned around on the flooded backwaters at the confluence of the Neches and Angelina Rivers in East Texas.

I had traveled with my six-year-old son by boat into a dense cypress swamp

one cold December day to collect some data for a research project. Toward evening, we decided to head back to camp. En route our small outboard motor caught on a submerged stump and was torn off the transom, sinking as far as the safety chain would allow it. I quickly retrieved the motor, but it took well over an hour to dry and start it. By then, dusk had settled and the growing darkness made it impossible to spot landmarks. Because I had my young son with me and the weather was turning dangerously wet and cold I was doubly concerned about our situation. I knew that to the east of us were the open waters of the lake. If we could reach it, it would be a simple matter to follow the shoreline to our camp.

To appreciate what happened next, you must first understand that as a professional forester I routinely use a map and compass in the course of my work. When I pulled my compass out to orient us towards east, I was suddenly faced with a terrifying thought—which end of the needle pointed north, the red or the white? No doubt stress was taking effect and the early stages of panic were creeping in. Fortunately, the compass instructions were wadded at the bottom of the case in a crumpled ball and a quick glance cleared my mind so I could take a proper bearing and head back to camp.

To control panic, the first thing to do is admit you're lost. Don't wander around trying to recognize landmarks without direction or use of a map and compass. Confusion will increase and panic will build. Another experience with panic taught me the value of keeping a clear head. I was hunting in Montana with a friend who had been raised in the stretch of mountains we were working. We had spotted a small herd of elk moving slowly along a ridge some distance away. In an effort to cut them off, I elected to cut through the timber and position myself at the far end of the ridge while my friend and his brother worked their way around the small peak between us and the elk. In the excitement, I made what I thought was a beeline toward the ridge without really paying attention to my surroundings. Tall timber can block out the sky and throw off your sense of direction. I don't know how long I picked my way through the thicket be-

fore I realized I was lost. To make matters worse, the Canadian norther that had been blowing earlier had picked up a bit, and heavy snow clouds were rolling into the valley eating up the remaining light.

My initial reaction to the situation was one of embarrassment and humiliation rather than fear. I could just imagine the ribbing I was going to get from these Montana cowboys after pulling a Texan out of this pickle. I felt a compelling urge to break and run,



*Bowdrills are primitive fire-making tools easily made from common materials such as a willow branch and a shoestring.*

convinced my companions would be around the next bend or just beyond the trees. It took a great deal of will power to force myself to accept the fact that things were not going to wind up as planned, and I was not going to stroll into camp with a string of tales of the day's adventures. Instead, I made preparations to settle in for the night, an act that no doubt saved my life from the gale force winds that blew in later.

**N**early every former Boy Scout who remembers his woodcraft training will tell you that as soon as you begin to suspect you are lost, stop at a suitable spot, sit down and eat lunch or build a fire. This gives you time to collect your thoughts and devise a plan of action. Even in warm weather a fire is important—not only for cooking, signaling and purifying water, but it has a certain soothing quality that tends to calm the most distraught person.

Although you should avoid unnecessary physical activity and conserve energy in a survival situation, sometimes keeping busy helps relieve anxiety and stress by channeling nervous energy into positive action. Building a shelter, collecting firewood or even setting a snare or two will go a long way in occupying the mind with thoughts other than worry. An accepted school of thought by most survival experts in this regard is to “do something, even if it doesn’t work, it will keep you alive that much longer, thinking it will.”

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*So decisive a factor is one's strength of will that often a person of strong will with a major injury will survive when an uninjured or weak person will die. "Giveupitis" rather than the circumstances kills most victims.*

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There are numerous cases of people who just gave up and died amidst plenty. A few years ago I participated in a search in the Colorado Rockies for two hunters who failed to report in at the check station on our wildlife management area at the end of the day. Conditions were just right for hypothermia as a still norther had pushed the chill factor to a record low and a slushy snow mixed with wet globs of sleet had been falling since midafternoon.

Just before dawn, we were attracted by the dim glow of a flashlight and found the body of one hunter at the bottom of a nearby ravine. Later that morning the second hunter was found farther up the mountain, huddled and dead from exposure. In investigating this tragedy, it was fairly easy to reconstruct the events that led to the deaths.

The frozen carcass of a mule deer that had been shot by one of the hunt-

ers was located near the second hunter. Both men had apparently tried to drag the animal back to camp. Making little progress they apparently decided to leave one man with the deer while the other set out alone to get some help from their buddies at camp. A combination of the evening darkness and the falling snow must have disoriented the latter as he obviously became lost and wandered in the opposite direction of the camp. Not being familiar with the terrain and suffering from fatigue and cold, he stepped off the edge of the cliff and fell into the ravine where he died of multiple fractures and exposure.

The second victim, an older, heavy-set man, was wearing thin cotton garments that failed to retain their warmth as they became damp from perspiration and snow. He died of hypothermia as the wind sapped his body heat.

The tragedy lies in the fact that common sense and application of some basic woodlore could have prevented both deaths. The first hunter, obviously warmed by dragging the deer, had shed his heavy overcoat and left it behind with his rifle and daypack. He carried only the flashlight. The daypack contained a compass, a map of the area, food and most importantly, matches for a fire. A quick glance at the map could have helped him safely back to camp. When visibility dropped, the compass could have allowed him to monitor his progress and note significant direction changes that would have prevented the 180-degree turn he made en route. With all of his fire-starting material left in the daypack he did not have the means to build a fire had he wanted to, and his failure to take his overcoat along simply sped up the effects of the deadly, icy wind.

The second hunter not only had his own daypack containing food and fire-starting material, but also that of his partner. Why he did not attempt to use any of the equipment remains a mystery that cost him his life.

So decisive a factor is one's strength of will that often a person of strong will with a major injury will survive when an uninjured person or one with a weak morale will succumb. According to survival authorities, it is well documented that “giveupitis” rather than actual death-producing situations kills most victims.





**I**n any emergency situation, a positive mental attitude backed up with a real sense of security born of a knowledge of self-sufficiency is paramount to survival. Survival is a frame of mind, and to stabilize that frame of mind you must put things in it that can be used. \* \*

Although you should concentrate your efforts in the development of survival skills and basic woodcraft, the survival kit remains a vital support element in the emergency preparation of the outdoorsman. Traveling into the wilderness without one is much like driving down a deserted back road late at night with your gas tank on empty. You are taking a chance that you'll make it. Survival gear, like first aid supplies, are cumbersome items that you "do not need until you need them."

Even the Indian and the Mountain Man carried a "possible bag." It contained anything they "might possibly need" ranging from striker steel and tinder, to stone knives, antler tools, pemmican, jerky and assorted herbs for medicines.

There are a number of well-designed commercial kits on the market that offer the buyer the convenience of prepackaged equipment. Most seasoned outdoorsmen, however, prefer to design their own kits, tailoring the contents to fit anticipated needs of specific geographic locations and seasons. It is important to avoid gimmicks and pack only tested items that will be of benefit.

#### **Suggested Survival Kits:**

**Pocket Kit:** Compass. Basic first aid items: Band-Aids, bandages, disinfectant. Waterproof matches, granola bar or chocolate bar, bouillon cubes, water purification tablets, knife, cord, toilet paper, metal mirror.

**Day Pack:** Map, compass, waterproof matches, 1-2 railroad flares, flashlight, food (C-rations, candy, trail snack, etc.), canteen, knife, hand axe, bandana, space blanket, metal mirror, toilet paper, individual first aid kit, change of socks, medications as needed, spare boot laces.

## along the trail at Somerville

Article by Mary-Love Bigony and  
Photography by Glen Mills

Winding through 21 miles of rolling hills and woodlands, the Somerville Trailway is ideal for people who want more from a state park visit than just sitting around a campsite.

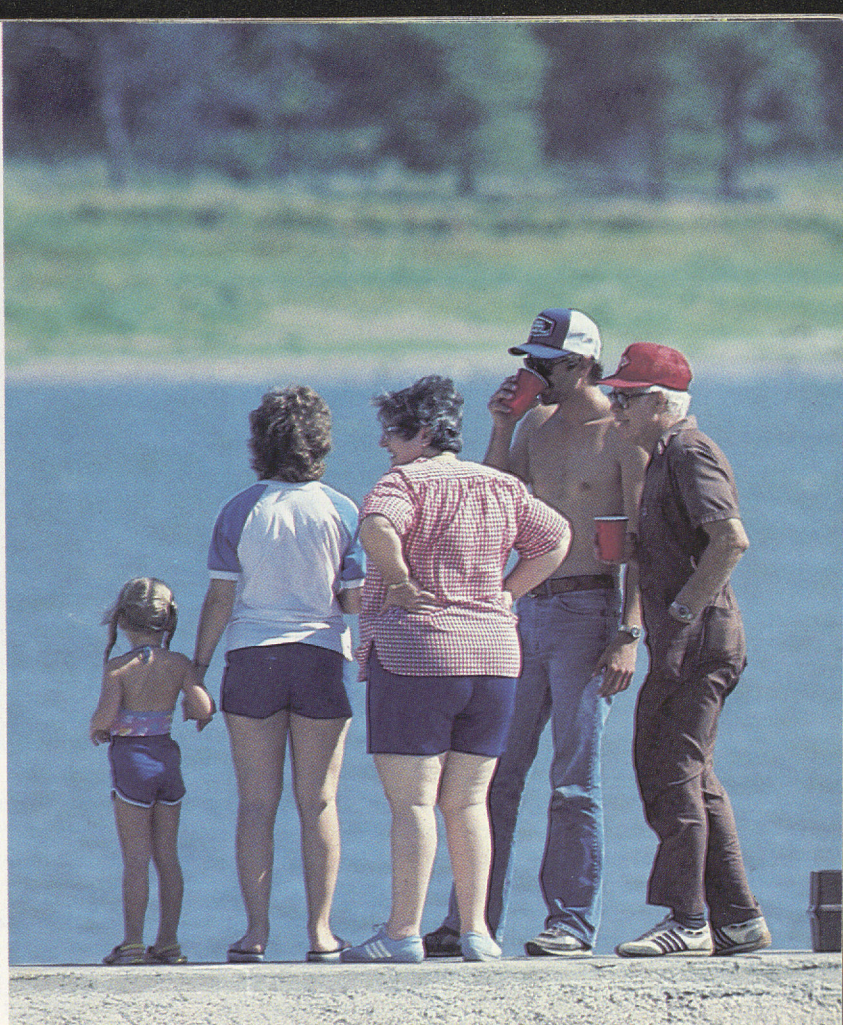
**T**he trailway system connecting the Birch Creek and Nails Creek Units of Lake Somerville State Recreation Area is the longest single trail in a Texas state park, and an invigorating trek for anyone with a pair of good hiking shoes and plenty of stamina. Horseback riders are welcome on the trailway too, as are bicycle riders. Motorized vehicles are prohibited.

Not only can you spend an entire day along the Somerville Trailway, you can spend the night there as well. Backpackers and equestrian campers can choose from five camping areas along the course, from wooded areas to creekside settings. A well on either side of the lake provides hand-pumped, treated water for campers and horses.

The trail itself is wide, easily hiked and never dull since the scenery changes often. At times the overhead vegetation is thick enough to obscure the sunlight, but dense and brushy areas give way to grassy open meadows, and dramatic lake vistas appear at several points along the way. Between the two units of the state park the trail passes through inland marshes, wooded overflow bottomlands and yaupon-infested woodlands. Gently rolling hills display plants that are typical of the Post Oak Savannah Region of East Texas. Wild flowers such as bluebonnets, Indian paintbrush, phlox, spiderwort and wildindigo add color to the spring landscape, and many species continue to bloom throughout the summer.







*Nails and Birch Creek units have good access to Lake Somerville with fishing for crappie, bass and catfish. Fish-cleaning shelters, ramps and piers are available.*



Before setting out on the trailway, be sure to visit one of the interpretive centers at the trailheads in Birch Creek and Nails Creek to get an idea of what's in store. The first mile or so from each park is smooth to provide a comfortable walk for anyone who wants just a sample of the trailway. Between the two parks the trailway covers 14 miles, and loops of various distances add about seven more miles to the system's 4,900 acres. The loops allow hikers to make a shorter trip and return to the park from which they started, or provide additional sight-seeing trips off the main trail. There are mile markers and rest stops at regular intervals, as well as shade shelters with maps of the trailway.

Somerville Trailway is a good birding area and during the late winter and early spring migrations as many as 65 species of birds can be seen passing overhead. Interesting migrants include bald eagles, golden eagles, ospreys and sandhill cranes. Waterfowl find Lake Somerville and nearby Flag Pond attractive, and in the fall a portion of the trail provides a beautiful vista of ducks on the lake with white-tailed deer occasionally coming into view near the shoreline. Waterfowl hunting is permitted on the upper end of Lake Somerville; the headquarters of the Birch Creek and Nails Creek units of the state park, as well as the Corps of Engineers office in Somerville, can provide information.

Trail users and park visitors will notice oil drilling activity in the area.



There are 62 completed wells on the park property, but most of them are smaller than wells found on private property. The Texas Parks and Wildlife Department monitors the drilling to keep the environmental impact to a minimum, and when companies complete a project they are required to replant native vegetation according to department specifications or allow the area to recover naturally so that as little evidence as possible of the wells remains. Drilling in the park began in 1977 and is believed to have peaked.

Nails Creek and Birch Creek, on either end of the Somerville Trailway, provide a full range of facilities in attractive natural surroundings. Both accommodate horseback riders who will be using the trailway with equestrian campgrounds at the trailheads. The equestrian campgrounds provide parking spaces for horse trailers and riders can camp there and take their horses out on day trips or camp along the trailway.

Nails Creek, on the south side of the lake, is about half the size of Birch Creek, which is on the north side. Both are water-oriented parks with good access to Lake Somerville. Nails is a good fishing park, as the two fish cleaning shelters there indicate. Rod and reel anglers, as well as those with cane poles, usually do well, and the spring crappie run there is excellent. Nails Creek has one boat ramp and campers can reach the lake easily from all the campsites.

Birch Creek has access to deeper parts of Lake Somerville and has two boat ramps as well as a jetty-type fishing pier. The 11,200-acre lake offers good bass fishing, and catfish prospects are said to be above average. Birch Creek has a group trailer area of 30 sites surrounding cooking facilities, which park officials say has seen a dramatic increase in use recently. Individual campsites in Birch Creek have a secluded feeling due to the ubiquitous yaupon growing between each site, and each of the three camping areas has a trail leading to the lake.

A favorite pastime in both parks, as well as along the trail, is watching the white-tailed deer. They are abundant





*Lake Somerville Park has plenty of picnic and camping sites. But the 21-mile-long trail (top) is what makes it unique among Texas state parks. Loops account for seven of these miles and allow shorter hikes or sightseeing trips off the main trail.*

and easy to observe or photograph. In the summer many of the does have fawns with them. Cottontails and squirrels also are common, and keen eyes might see a coyote, beaver or some 40 other mammals that are native to the area.

If a 14-mile hike down the trailway sounds too strenuous, both Birch Creek and Nails Creek have nature trails that are not part of the trailway.



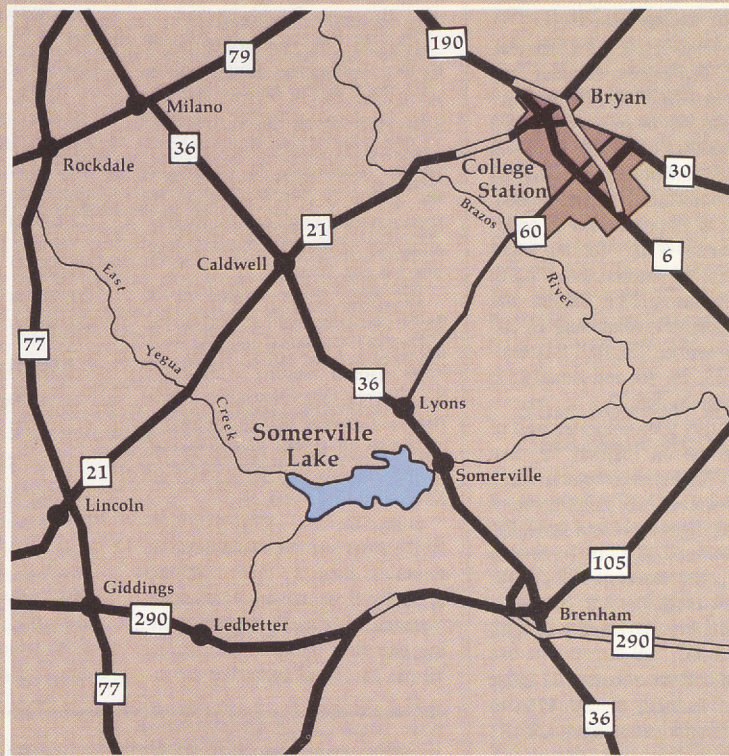
Both parks also have designated swimming areas on Lake Somerville as well as attractive day-use areas with picnic tables available on a first-come first-served basis. For larger groups there are picnic pavilions that can accommodate up to 75 people. These must be reserved in advance.

Lake Somerville State Recreation Area is easy to get to from many parts of the state. It's less than 100 miles from Houston and Austin, and less than 200 miles from San Antonio, Corpus Christi and Dallas-Fort Worth. Nails Creek and Birch Creek provide an East Texas setting for a camp-out, and the Somerville Trailway is a scenic area for hiking, horseback riding or primitive camping. And of course there's the lake for fishing, swimming or boating. Activities at Lake Somerville can be invigorating or relaxing—it's a good place for either. \*\*





*Less than 100 miles from Houston and Austin, and less than 200 miles from San Antonio, Dallas-Fort Worth and Corpus Christi, Lake Somerville Park is an accessible East Texas outing.*



## Lake Somerville State Recreation Area

### Birch Creek Unit

Location: Burleson County. Take SH 36 north from Brenham to FM 60, then southeast on FM 60 to Park Road 57.

Facilities: 103 multiuse campsites; equestrian camping area; group trailer rally area; trailer dump station; three picnic shelters (available by reservation; day use only); two boat ramps; fish cleaning shelter.

For reservations or information: call 409-535-7763 or write Rt. 1, Box 499, Somerville 77879.

### Nails Creek Unit

Location: Lee County. Take FM 141 north from Giddings to FM 1697, then southeast on FM 1697 on FM 180.

Facilities: 40 multiuse campsites; 10 campsites with water; trailer dump station; two group picnic shelters (available by reservation; day use only); two restrooms with showers, two without; boat ramp; two fish cleaning shelters.

For reservations or information: call 409-289-2392 or write Rt. 1, Box 61C, Ledbetter 78946.

## Management Area Quail Hunts

In the October 1984 "Outdoor Roundup" article, "Dove, Quail Hunting Opportunities Listed," some of the wildlife management areas offering quail hunts were inadvertently listed under "Mourning Dove Hunts."

The following is a complete list of dates and locations for quail hunts on wildlife management areas.

Quail hunting on the Chaparral, James E. Daughtrey, Matador and Matagorda Island Wildlife Management Areas will be by permit issued at the check stations. A fee of \$5 will be charged, and hunters are required to check out when the hunt is ended. Bag limit is 12 per day on all areas.

Chaparral WMA—located eight miles west of Artesia Wells, north side of Highway 133, Dimmit and LaSalle Counties, containing 15,200 acres; November 3, 4, 10, 11; December 22, 23, 29, 30; and January 12, 13, 19, 20, 26 and 27.

Daughtrey WMA—located west of Three Rivers on Highway 72, Live Oak and McMullen Counties; check station located three miles north of Tilden on Highway 16 and five miles east on Farm Road 3445, containing 15,000 acres; November 3-15, 19-21, 26-29; December 3-6, 10-13, 17-20; December 31-January 3, and January 7-20.

Matador WMA—located 11 miles north of Paducah on FM 3256 in Cottle County, containing 28,183 acres; November 3, 4, 10, 11, 17, 18, 24, 25; December 1, 2, 8, 9, 15, 16; January 5, 6, 12, 13, 19, 20, 26, 27; February 2-3.

Matagorda Island WMA—located south of Port O'Connor and accessible by boat only; no transportation furnished to the island by the TP&WD; contains 39,000 acres for hunting; November 3-22; December 12-February 24.

On the following areas there will be no manned check station. Hunters may hunt at any time during the dates shown for each area. No fee will be charged, but hunters are asked to register at entrances to the area.

Black Gap WMA—located 55 miles south of Marathon on FM 2627 in Brewster County, containing 100,000 acres; October 27-December 31.

Gene Howe WMA—located six miles east of Canadian on FM 2266, Hemphill County, on the south fork of the Canadian River, containing 5,821 acres; November 3-16 and December 3-28.

Toledo Bend Unit—located in northeast Shelby County; follow FM 139 from Joaquin four miles to turn-

off to Lovick's Camp, on county graded road 1.3 miles to Lovick's Camp, turn right and proceed 1.1 mile south to Toledo Bend Area entrance; contains 3,600 acres of land and water; November 3-February 24.

Dam "B" Unit—(includes Angelina-Neches Scientific Area), located in Jasper and Tyler Counties about 14 miles west of Jasper containing about 13,085 acres, access by boat only; November 3-February 24.

Granger Unit—located in northeastern Williamson County about seven miles east of Granger and nine miles northeast of Taylor, containing 11,043 acres of land and water; November 3-February 24, except that the season is closed to all except special permit holders during pheasant hunts on October 26-28, November 3-4 and 10-11.

Pat Mayse Unit—located on FM 1499 (west and end of Pat Mayse Reservoir) 11 miles northwest of Paris, Lamar County, containing 8,317 acres; dates November 3-February 24, except that the season is closed to all except special permit holders during gun deer hunts on November 17-21 and 23-27.

Somerville Unit—located on Somerville Reservoir in Lee and Burleson Counties, about 17 miles southeast of Caldwell; containing 3,500 acres; November 3-February 24, except during gun deer hunts on November 17-21, 23-27 and December 1-5.

Alabama Creek WMA—located about five miles south of Apple Springs in Trinity County; containing 14,500 acres; November 3-February 24, except during gun deer hunts November 16-21, 23-28 and November 30-December 2.

Bannister WMA—located between Norwood and Broadus in San Augustine County, containing 20,700 acres; November 3-February 24, except during gun deer hunts November 16-21, 23-28 and November 30-December 2.

Caddo WMA—Area consists of 16,700 acres in several tracts in Fannin County; Ladonia Unit, dates November 3-February 24; Bois d'Arc Unit, November 3-15 and November 22-February 24.

Moore Plantation WMA—located in Sabine County east of Pineland, 24,800 acres; November 3-15, 22, 29; December 3-February 24.

## Hunter-Landowner Relationship Explored in Joint Study

With about 98 percent of Texas' land privately owned, an increasing number of prospective hunters are unable to find a place to hunt.

A survey by Texas A&M University's Department of Recreation and Parks is being conducted to explore hunter access problems and oppor-

tunities in the Pineywoods region of East Texas.

Although hunting continues as a big business in Texas, with an estimated 2 million hunters spending more than \$600 million annually, imbalances in land utilization are wasting resources, state wildlife officials believe.

Texas Parks and Wildlife Department officials point out that overpopulation of white-tailed deer over much of its range in the state is a result of too few hunters having access to hunting areas. "Underutilization of the deer herd, especially the antlerless segment, is not only wasting a resource but also causing deterioration of the habitat," said Horace Gore, TP&WD white-tailed deer program leader.

The survey, directed by Dr. Ronald Kaiser and Brett Wright of Texas A&M, is based on 1,200 questionnaires mailed to landowners in East Texas during September to obtain their opinions on how the TP&WD might increase hunting opportunities while reducing hunter-landowner conflicts. Results of the study are expected to be available in spring 1985.

Further information on the study may be obtained by contacting Dr. Kaiser at the Department of Recreation and Parks, Texas A&M University, College Station, Texas 77843, (409) 845-5411.

## California Pheasants Released in Matagorda County

Wildlife officials of the Texas Parks and Wildlife Department visited their counterparts in California in September, returning with 305 wild ring-necked pheasants.

The birds were released near Bay City on the fringe of a region where previous stocking programs had established a breeding population of pheasants.

Don Wilson, upland game program leader, said they observed capture techniques of California biologists who round up the birds at night with powerful spotlights and specially equipped trucks.

Spotlight operators shine lights on birds flushed by a truck driven across fields on a wildlife management area near Yuba City, Wilson said. The driver attempts to follow the flying bird, and when it alights other workers try to pin it down with long-handled nets.

"It's not unusual for them to catch over 100 pheasants in one night," Wilson said. The problem with applying that technique in Texas

# OUTDOOR ROUNDUP

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DEPARTMENT'S NEWS SERVICE

## First Alligator Season Harvest Totals 437

Alligator hunters harvested 437 of the reptiles during Texas' first controlled gator hunting season September 7-23.

Texas Parks and Wildlife Department officials said alligators were taken from all 11 counties where tags were issued. A total of 474 tags was issued to landowners and there were 193 licensed hunters. The harvested animals represented 92 percent hunter success for the 474 tags issued, but were just 56 percent of the 780 tag quota established for the 11 county area.

Bruce Thompson, alligator program leader, said the largest taken was 13 feet, four inches long. A minimum length of four feet was in effect. All counties where hunting was authorized are in the Southeast Texas region, and Jefferson County accounted for the highest harvest.

Thompson said an interesting sidelight to the gator harvest was the variety of items found in the animals' stomachs, including bottles, turtles, aluminum can pop-tops, crabs, nutria and an assortment of metal objects.

is one of terrain, however.

"Much of Texas' pheasant habitat is agricultural, and vehicles are restricted to roads or edges of fields," he said. "We have had limited success catching pheasants with helicopters and ground traps, but maybe in the future we can modify our techniques to get a higher catch rate."

Restocking efforts have established sustaining populations, and a hunting season is provided in all of Brazoria, Jefferson, Chambers, Liberty and Matagorda Counties, and portions of Fort Bend and Wharton Counties in Southeast Texas.

### Special Limits 'Fine Tune' Largemouth Bass Fisheries

Largemouth bass management in Texas is headed for some significant changes in the future, and special bag and size limits may be an integral part of the program.

The Texas Parks and Wildlife Department, in a recently published six-year plan for the period 1986-1991, announced a goal of producing 30 million fingerling Florida largemouths for stocking in Texas reservoirs.

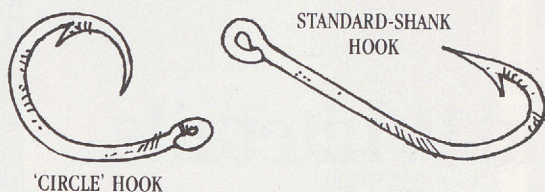
Bass stocking, however, is only part of the picture. Past experience with the effects of fishing pressure on popular bass fisheries has taught biologists the value of specialized limits to prevent overharvest, especially on new lakes.

"The general feeling in the past was that the population of Texas was low and fishing pressure had little effect on a lake's productivity," said Ernest Simmons, inland fisheries chief. "We have since found that angling activity can dramatically reduce a bass population on a lake in a very short period of time."

Several lakes could be cited as examples of the "opening day effect." Lake Nacogdoches, a 2,200-acre reservoir owned by that city had a fairly mature bass fishery when opened to public fishing in December 1978. The standard 10 bass per day, and 10-inch minimum length limits were in effect.

City of Nacogdoches and Parks and Wildlife Department officials estimated that anglers removed between 60,000 and 120,000 pounds of bass from the lake during the first month. Alarmed at the high harvest, city officials closed the lake to fishing on January 15, 1979, according to TP&WD biologist Paul Seidensticker of Jasper.

When reopened three months later, there was a repeat of the earlier scene on a slightly smaller scale



### 'Circle' Hook Requirement New for Trotlines

Many coastal fishermen may be unfamiliar with the circle-type hooks now required for use on all saltwater trotlines, but Texas Parks and Wildlife Department officials believe the odd-shaped hooks will gain rapid acceptance once tried in the bays.

The hooks, which feature a radical bend and extremely short shank, are variously known as tuna hooks, Japanese snapper hooks or simply circle hooks. Offshore fishermen have found them to be extremely effective in deep-water angling for red snapper and larger fish such as tarpon.

"There are two main reasons the Parks and Wildlife Commission established the circle hook requirement," said Gary Matlock. "The primary one is that fishermen report hooking virtually all their fish in the lip with circle hooks, and it's extremely rare that a fish is hooked in the gills, throat or stomach."

"The second reason is the overall effectiveness of the hook design. Fish hitting a circle hook tend to be hooked cleanly, and the hook remains in place even with fish caught on trotlines," Matlock said.

Some coastal tackle shops presently may have a stock of circle hooks, and they are listed in a number of tackle catalogs, Matlock said.

Matlock noted that spotted seatrout and red drum caught on trotlines may not be retained, and he feels that use of circle hooks should increase survival rates of trotline-caught fish that are returned to the water.

for about a week, Seidensticker said, then fishing success dropped precipitously. The current 16-inch minimum length and three bass per day bag limit was approved by the Parks and Wildlife Commission, effective the following August 1.

Since that time, bass fishing has gradually improved, Seidensticker said. "The local bass clubs and other interested fishermen were very much in favor of the more restrictive limit," he said.

The three-per-day, 16-inch minimum is also now in effect at Fayette Power Project Lake near LaGrange, Coleto Creek Reservoir near Victoria and Squaw Creek (Comanche Peak) Lake in Hood and Somervell Counties.

Another type of special limit is in use on two reservoirs. At Calaveras near San Antonio and Monticello near Mount Pleasant, bass between 14 and 18 inches may not be retained but all other sizes may be. This "slot" limit is intended to protect the valuable mid-sized bass which tend to be overharvested in many lakes, and allow a greater percentage of bass to reach trophy size.

"We also have found that hook-and-release is a valid concept for bass regulations," Simmons said. "Bass can survive even after being caught several times if the fisherman touches only the lower jaw when unhooking the fish. Catch and release is not the same as catch, hold, verify and release which may be less

effective."

Biologist Wade Butler of San Marcos collected some informal data during February which apply to catch and release. "Our crews were collecting bass in an electroshocking boat for an age and growth study," said Butler. "I started counting the bass under 16 inches (the legal minimum) and found that of the 100 fish we looked at, almost exactly half had fresh hook marks in their jaws."

Butler hastened to add that the survey was done during February, when fishing activity is traditionally heavy on the lake. "I think it illustrates that bass hooked and released because of a particular length limit have generally good survival," Butler said.

"Regulations should be based on sound data," Simmons continued. "What works for one lake may be useless in another."

He explained that it would be a mistake to apply a slot limit everywhere in Texas or to arbitrarily raise the minimum size limit to 12 or 14 inches statewide. This would be penalizing fishermen for no good purpose, Simmons reasoned.

"Nevertheless, we intend to be innovative in our approach, and we may even experiment on other lakes just as we did at Fayette and Nacogdoches," Simmons said. "We won't restrict our thinking to black bass, either. We are looking hard at crappie, white bass, catfish, hybrid stripers and even sunfish."

### Trails Symposium Scheduled November 10 and 11

Lake Mineral Wells State Park will be the site of the Fourth Annual Trails Symposium November 10 and 11.

Sponsored by the Texas Parks and Wildlife Department and the Texas Trails Association, the symposium will address the needs of a wide variety of trail users. Events planned for Sunday, November 11 include equestrian rides, a float trip on the Brazos River, a bicycle trail ride and a day hike in the state park.

Fee for the symposium, which the public is invited to attend, is \$5 per family. A barbecue dinner Saturday evening is \$5 for adults and \$2.50 for children under 12. For more information contact Kathryn Nichols at 512/479-4800 ext. 2414.

### Blue Marlin Catch Sets State Record

An 824-pound blue marlin caught September 1 off South Padre Island has been certified as a new state record, according to the Texas Parks and Wildlife Department.

John F. Etier of Weslaco caught the fish with an 80-pound class rod and 130 micron line. The fish measured 14 feet, four inches in length and 69 inches in girth.

The former record blue, weighing 722 pounds, was caught in the Gulf of Mexico in July 1982.

December in . . .

## TEXAS PARKS & WILDLIFE

Flamboyantly colored wood ducks are one of the most beautiful wildlife species in this country, and Texas claims both resident and migrant populations of the resplendent birds. In the December issue we'll take a look at the wood duck in Texas, its life cycle and habits. Remember the winter of '83 with record cold temperatures all across the state? We'll relive that winter next month with a look at nature's response to the cold. Also in December we'll go trout fishing in seven state parks, see some carved birds that could pass for live ones, learn the difference between rabbits and hares and discover the many creatures that live in and around freshwater ponds. The Young Naturalist will describe how to dry wildflowers for a nature project.

# Muleys and Whitetails Side by Side

by William B. Russ, Wildlife Biologist, Sanderson

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Big game and white-tailed deer are synonymous to the legions of Texas hunters throughout the state. However, big game means mule deer to hunters who venture into the Trans-Pecos mountains and basins or the Panhandle canyons.

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**T**he whitetail has steadily been expanding its range into both of these mule deer strongholds, especially along the eastern edge of the Trans-Pecos. Whitetails (*Odocoileus virginianus*) are more numerous than mule deer (*O. hemionus*) in the western portion of the Edwards Plateau where the two species overlap, and they are locally abundant in the Chinati, Davis, Del Norte and Glass Mountains. A small population of Carmen Mountain whitetails remains in the highest elevations of the mountain ranges in Brewster and Presidio Counties, and can be seen in Big Bend National Park. (See *Texas Parks & Wildlife*, June 1984.)

The ability to differentiate between whitetails and mule deer can be a casual undertaking for the hiker or park visitor who encounters a deer. But to a hunter, the identification of the two species is important and can be critical. It's less important if the season is open on both species, and the hunter has permission to take either a whitetail or mule deer. However, proper identification before the deer is harvested becomes critical in areas where the white-tailed deer season remains open for several weeks after the close of mule deer season, or if the hunter has permission to harvest only one of the two species. The penalty for misidentifying a deer could be

MARTIN T. FULFER



BILL REAVES







WYMAN P. MEINZER JR.



WYMAN P. MEINZER JR.

*The erect tail of a fleeing whitetail (far left) distinguishes it from a mule deer (bottom left), which holds its tail down, or never higher than horizontal, when frightened. The outsized ears of the mule deer (above) are obviously much larger than those of the whitetail (top left).*

forfeiture of hunting rights and/or facing a judge for a violation. This potential problem can be avoided if the hunter can identify either species based on physical and behavioral characteristics.

**T**he mule deer got its common name from its outsized ears that are approximately 11 inches long and six inches wide. They are noticeably larger than the whitetail's ears, and are particularly conspicuous when a mule deer is alert to danger.

The white-tailed deer received its common name for the large conspicuous tail it usually holds erect when nervous or frightened. The tail is usually 10 inches or more in length, whereas a mule deer's tail is rarely more than seven inches long. Mule deer hold their tails down, or never higher than horizontal, when frightened. The exterior hair on the tail of a whitetail is brown or tan with a fringe of white hair along the edge. The mule deer's tail is usually white except for a black or dark brown tip. Mule deer appear to have a solid white rump while

*Continued on page 26*



WHITETAILS BY BILL REAVES



whitetails have a white rump patch that is bisected by the tail. Many landowners and sportsmen in Texas refer to mule deer as blacktail deer due to the absence of a conspicuous tail. But the blacktail deer is a distinct subspecies (*O. b. columbianus*) found in the Pacific Northwest.

A buck's antlers are the key characteristic used to divide the two species within the Cervidae family of mammal

WYMAN P. MEINZER JR.



BILL REAVES

classification. Mule deer antlers are dichotomous, which means that the main beam divides and the antlers further divide so that they appear to be two relatively equal branches. In whitetails all points typically grow off a main beam and do not fork. The normal adult white-tailed buck has a large and prominent brow tine, commonly called the eye guard. The brow tine in mule deer is relatively short and circular rather than elliptical in cross section and often is absent.

Antlers are the key problem in mistaken identification or when a hunter claims to have taken a hybrid deer, especially when a hunter tries to identify the deer solely by antlers. Mule deer antlers commonly resemble those of a whitetail until a buck is three or four years old. This is especially true during drought conditions that result in poor antler development.

The metatarsal gland is one of the best methods for determining the species. This gland is located inside the hock on the lower rear legs of both species. It appears to be round on the whitetail and is normally one to 1½ inches long. In mule deer, it is normally four to six inches long and appears as a long, thin slit. Biologists have observed some deer with metatarsal glands intermediate in length between the two species. This has led to speculation about hybrid whitetail/mule deer. However, we do not presently know if these are hybrid animals. (See story on page 29.)

Some lesser-known physical characteristics also distinguish desert mule deer from white-tailed deer. Mule deer bucks have a prominent black patch on the face that comes down the head from between the ears to a point



WYMAN P. WEINZER JR.

BILL REAVES



*Antlers are a key characteristic used to distinguish mule deer from whitetails; however, relying on antlers alone can lead to misidentification. Until a mule deer buck is three or four years old, its antlers may resemble those of a whitetail. The branching antlers of the mule deer (top left) leave no doubt as to their identity, but the rack below is not as distinctive, so the hunter may need to rely on tail and ear characteristics to confirm identification.*



midway on the face. The mule deer is generally larger and stockier than the whitetail. Data collected by department biologists in the Trans-Pecos during the past six years reveal that mule deer bucks average 15 to 20 pounds heavier by age class than whitetails. Also, mature mule deer bucks four years old or older field dress in excess of 120 pounds while mature white-tailed bucks field dress from 90 to 120 pounds.

**T**he white-tailed deer has adapted to a variety of habitats across Texas whereas the mule deer's range is limited. The overlap of the two species in this limited range makes it difficult to delineate differences. However, mule deer prefer rougher, more arid and open country. The whitetail has a decided preference for brush and the heavily forested areas of the mountains. Generally in areas where the species overlap, the white-tails are found in the brushy draws, canyons and rangelands infested with brush while the mule deer are located on the rimrock and open mesas.

The rut or breeding season for Trans-Pecos whitetails peaks during the first week of December. The mule deer rut peaks approximately one month later. The gestation period lasts from 200 to 210 days in both species; therefore, whitetail fawns usually appear a month earlier than mule deer fawns. However, a few does of both species will conceive either early or late during the respective breeding periods with an overlap in fawning periods. Mule deer form herds prior to the breeding season and remain in these herds during the rut. Biologists have observed herds numbering as many as 90 animals in the Trans-Pecos. This behavior is not found in white-tailed deer.



BILL REAVES

*Compare the ears on these white-tailed does to those of the mule deer doe below. The large white tail on the doe in the foreground will spring erect if the group is frightened.*

A mule deer's bounding gait is its most characteristic behavior. This form of locomotion has been described as being similar to bouncing on a pogo stick. At the height of each jump all four feet are poised in the same position. Whitetails have a normal gait when running, and once a whitetail

makes up his mind to flee he goes flat out and usually disappears from view. The mule deer, on the other hand, often bounds for a short distance and is apt to stop and look back to see what disturbed him. This characteristic has proven fatal for many a mule deer buck during hunting season.

White-tailed deer have demonstrated an ability to live near man and have increased over much of their range to the point of being too numerous, while mule deer are creatures of the wilderness and do best in remote areas. Since the early 1970s censuses by the Texas Parks and Wildlife Department in the Trans-Pecos have shown a decrease in the mule deer population and an increase in the whitetail population (see following story).

Whitetail bucks are described as the smartest of all big game and taking an outstanding trophy is considered the greatest challenge of big game hunting. But a crafty mule deer buck also can be a challenge. The mule deer hunter should brush up on his field identification before traveling to the Panhandle or Trans-Pecos, as that trophy slipping out of the canyon may be a whitetail. \*\*



GLEN MILLS

*When startled, this mule deer doe will bound away with a bouncing gait that is compared to the action of a pogo stick.*

# Move Over Muley

by Suzy Smith

**T**here may be several reasons for the decrease in the Trans-Pecos mule deer population over the last decade. Many biologists have attributed it to habitat changes, such as invading brush, that are favorable to whitetails. Predation, competition, weather, disease and nutrition also may have contributed to the overall decrease in the mule deer population.

Landowners who make a lot of money from deer leases are acutely aware, and understandably concerned, over the mule deer decline. While habitat change may be the major cause, hybridization between mule deer and white-tailed deer may reduce the competitive ability of mule deer and thus accelerate their decline. Hybridization of mule deer and white-tailed deer is a little-studied phenomenon and its impacts are not known. In studies conducted on pen-raised deer, lower productivity and increased mortality of young were found to occur in hybrids of whitetails from the western United States. This indicates that hybridization could be very detrimental to the deer population of any area, including the Trans-Pecos.

Some biologists believe that interspecific courtships (courtships between mule deer and whitetails) are broken up in the wild by differing appearances, scent and behavior. It is believed, however, that if interspecific courtships do occur, they generally are between a white-tailed buck and a mule deer doe. White-tailed does have proven to be too elusive for mule deer bucks; however, mule deer does are not as elusive and white-tailed bucks are more persistent. Therefore, if hybridization is actually occurring to any extent, mule deer does are carrying more hybrid fawns than white-tailed does. As a result, purebred mule deer production could be much lower than purebred white-tailed deer production. This could be another factor adding to the overall mule deer decline.

Although hybrids of these two species have never been scientifically doc-

umented in the Trans-Pecos area, several landowners, hunters and others have reported seeing and/or shooting deer with characteristics of both mule deer and white-tailed deer. Deer with tails that are brown above and white below (characteristic of white-tailed deer) but with large ears (characteristic of mule deer) have been reported. Furthermore, a buck with one antler resembling that of a white-tailed deer (tines coming off a central beam) and one antler resembling that of a mule deer (forked antlers with no main or central beam) has been photographed. Although antler characteristics are not always 100 percent accurate, these two types are usually the norm of each species.

A study is being conducted by Texas

of the red wolf, which hybridized with the coyote.

If hybridization is found to occur to any substantial extent, previous recommendations for managing deer in the Trans-Pecos must be modified. Regardless of what the final recommendations may be, documentation of this phenomenon is important to deer management in this region of Texas.

The study will involve obtaining muscle, liver and heart samples (about one square inch in size) from hunter-killed deer on cooperating ranches. The samples will be frozen and later analyzed to determine whether the animal was a mule deer, a white-tailed deer or a hybrid. These methods will provide accurate results, since physical characteristics may not be reliable.



*Mule deer bucks are more likely to breed with does of their own species.*

Tech University in conjunction with the Caesar Kleberg Foundation for Wildlife Conservation to determine the occurrence and extent of hybridization between mule deer and white-tailed deer in the Trans-Pecos region. Reproductive and fertility characteristics also are being studied in mule deer, white-tailed deer and hybrids. If it is found that hybrids are occurring and are fertile, either or both species could lose their genetic identities. This was an important factor in the extinction

Any landowner, hunter or other interested person can participate in the hybridization study by donating samples from deer taken from the Trans-Pecos area during the 1984 deer season, or by allowing access to a ranch. Contact Suzy Smith at Texas Tech University, Department of Range and Wildlife Management, Lubbock, Texas 79409, telephone 806/742-2841 or 806/742-2847. Please leave a message and your call will be returned promptly.

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ANTLERLESS  
DEER HARVEST

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## No Shortcuts To Good Deer Management

by Horace Gore, Texas Parks and  
Wildlife Department and  
Fred Bryant, Texas Tech University

**T**exas has an abundance of white-tailed deer. Each year one-half million hunters converge on some 70 million acres of deer range and spend 3.5 million days harvesting 300,000 whitetails. Hunter success in 1983 was an incredible 52 percent. These figures probably can't be duplicated for whitetails anywhere else in the world. So, the average Texas deer hunter has it made—or has he? If we refer to quantity, Texas deer herds number in excess of 3 million animals, so there's no problem there. But if we refer to quality—that elusive criterion that qualifies a buck as a preferred trophy—the hunter may be coming up short.

We all recognize that beauty is in the eye of the beholder—one hunter's cull is another hunter's trophy. We also recognize that for most deer hunters, a buck (preferably with multiple points and good body size) is the goal of the hunt. Each time the season opens, dedicated hunters flock to the field in search of the elusive buck—the reward for endless hours in the cramped confines of a deer blind, or for persistence in ignoring rain and cold.

At each season's close, the harvest tallies like this: 75 percent bucks and 25 percent does (or antlerless deer). Sounds good, doesn't it? But there's a flaw in these numbers. The percentage of antlerless deer taken falls far short of what is needed to maintain healthy, well-nourished deer for future hunts. To be blunt about it, deer numbers must be regulated to the food supply if the full potential for body weight and antler quality is to be realized.

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*An abundance of antlerless deer need to be harvested early in the season.*

MARTIN T. FULLER



BILL REAVES

Deer management is a numbers game. Let's look at some of the numbers to see how things stack up for Texas whitetails. Since half of the state's deer herd is concentrated in a 30-county area where half of the harvest takes place, let's focus on "the deer capital of the world"—the Edwards Plateau of Texas.

Travelers in the Edwards Plateau, or Hill Country, will notice that the beautiful rolling hills are predominantly rangeland, heavily stocked with cattle, sheep, goats and deer—lots of deer. The area is home to an estimated 1.5 million whitetails, but there was a time when only a few counties had deer. During the 30s and 40s intensive trapping and transplanting efforts by the Game and Fish Commission (forerunner of the Texas Parks and Wildlife Department) placed broodstock on nearly every foot of acceptable deer range in the Edwards Plateau. Since all habitat was private property, a trespass law enabled landowners to regulate hunter access to their property.

Deer responded to the excellent range and by the late 40s, die-offs due to nutritional stress from overpopulation were being reported. Where ranchers had worked to protect and establish deer, they had too many for the range to support. Those who had worked so hard to establish deer had a difficult time accepting the fact that

harvesting does was necessary. Nevertheless, legislation was enacted and the first antlerless deer harvest occurred in 1953, when 52 landowners authorized the taking of 946 does in parts of two counties. The controversial program, which was the first of its kind in the United States, had a slow start. But despite the controversy, antlerless deer hunting was accepted and since that slow beginning, nearly 2 million deer that otherwise would have been wasted have been harvested. Today, it is difficult to find anyone who is opposed to taking antlerless deer. So the problem has been solved—or has it? Not quite!

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*Half of the state's deer herd is concentrated in a 30-county area where half of the harvest takes place. The Edwards Plateau, or Hill Country, is known as the "deer capital of the world."*

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**M**ost landowners and hunters are not opposed to harvesting female deer—they just don't harvest enough. Hunters continue to hunt primarily for bucks. A two-buck bag limit over most of the deer range gives hunters more buck tags than they can fill. Since buck hunters dominate the hunting fraternity (remem-

ber 75 percent of the harvest is bucks) little opportunity is left for those who would earnestly harvest does. A review of deer hunting statistics in Texas sums up the attitude of deer hunters about doe hunting. To begin with, a 1983 survey showed that 48 percent of the hunters did not kill a deer. This is not surprising, even in a state with 3 million deer. Half the hunters go home empty-handed. But the survey also showed that 81 percent of the hunters did not take an antlerless deer, even though every Texas hunting license has a tag that can be used only on an antlerless deer.

In 1983, 372,000 antlerless permits were issued to landowners on 42 million acres of prime deer range. With that many permits available, you'd think that hunters would exceed 23 percent participation. Obviously, there are problems. We can readily name two: procrastination (I'll shoot one tomorrow), and access to deer on private lands. To elaborate, we find that most hunters would take a doe under a variety of circumstances, for example: if their lessor forced them to take a doe as part of the lease agreement; if the season is almost over and they don't expect to see a buck; or if they are hunting for meat. But apparently, most hunters who have the opportunity to take an antlerless deer are not committed to the chore.

Access to deer is a serious management problem in Texas. Typically a group of hunters leases a pasture or a ranch for the entire 50-day season, yet the average Texas deer hunter only hunts seven days of the season. Here's an example: a 1,000-acre ranch in the Edwards Plateau has a saturated deer population of 80 deer—16 bucks, 44 does, and 25 fawns. Because of traditional leasing arrangements, 10 hunters have exclusive hunting rights on that tract. The average harvest is six bucks and three does. So, 11 percent of the deer are harvested, leaving 71 in a distorted buck-doe ratio to survive the winter in competition with livestock on depleted habitat. Why weren't more deer harvested? Because the only hunters having access to the deer were the lease party of 10 hunters. The season ends with a few bucks and a high proportion of does and their fawns, many of which will not live through the winter. Those that do survive will show the stress by poor body and antler development.

By statewide standards, very few quality bucks are taken in the Edwards Plateau. Exceptions to this trend come from landowners who are serious about their deer management programs and control deer numbers to correspond with habitat and nutrition. Even in the Hill Country, good deer can be produced when deer numbers and habitat are compatible.



C.J. SIMMONS

*Harvesting antlerless deer early in the season while the animals are in good condition could prevent the rest of the herd from experiencing nutritional stress or dieoffs later when food supplies dwindle.*

**S**o what is the prognosis for deer in the Edwards Plateau? It is very clear that habitat quality will continue to decline under the continual pressure exerted by deer and livestock. The deer herd has already experienced the typical patterns associated with normal population growth: (1) underutilization charac-

terized by underpopulation and a habitat that was capable of sustaining a large increase in population size (1920-1950); (2) acute overpopulation characterized by a rapid increase in population size over a short period of time with deterioration of available habitat (1950-1965); and (3) chronic overpopulation characterized by poor reproduction, antler development and body weights associated with poor nutritional levels (1965-present).

The "more is better" philosophy is an obstacle to deer management in the Edwards Plateau. Back when deer were scarce in the Hill Country, and the Game and Fish Commission was stocking deer, landowners developed a protectionist attitude that persists today. There was a time when every doe was needed to build up the meager deer herds, but that time is past. Now we need a relaxation of protectionism and a kindling of harvest philosophy.

Deer are a renewable resource—that is, they replenish themselves annually. Their reproduction rate depends on the support they get from the habitat. A deer herd is not much different from an orchard that annually produces a crop of fruit. We wouldn't expect a farmer to sit back and let his crop go unused thinking he can save it from going to waste. A farmer would know better, because he would learn as much as he could about the orchard business to insure the highest margin

MARTIN T. FULFEE



of success. Deer management is no different. Ranchers should learn as much as possible about deer so that they can effectively utilize the resource in a way that will enhance the annual renewal. They should literally make room for more deer by harvesting more deer.

Lots of deer is no guarantee for lots of fawns. In fact, 50 healthy does can raise as many fawns to adulthood as 100 poor does. Why? Because poor does can lose their fawns in several ways. They may resorb them in the

and increases the food supply for the remaining deer. As a result, the fewer, healthier does can raise 150 fawns—75 of each sex—and the landowner prospers by adding more hunters. The hunters are happy because they have a place to hunt. The deer population is not hurt by the extra doe hunting because instead of the previous 100 fawns, it now gains 150 fawns (and 50 percent more bucks). As time passes, the landowner, hunters and deer are all better off.

complished would be for ranchers to split up the hunting rights during the deer season among two or more hunting groups. This would increase the number of hunters having access to the deer and could increase the landowner's revenue.

Special antlerless deer seasons either before or after the regular season could promote the taking of more antlerless deer. For the past several years such an antlerless-only season has been tried in the South Texas counties of Maverick, Webb, Dimmit, Duval and Zapata. The season this year is October 27 through November 11. However, this special season has not resulted in a significant antlerless harvest, probably because hunting areas have not been opened up to new groups of hunters who could harvest deer. Most ranchers do not realize that hunters are out there waiting for a chance to pay for the privilege of hunting antlerless deer, but some innovative deer managers have found there are many hunters—such as day-lease hunters—waiting for an opportunity to harvest a doe.

Deer harvest in the Edwards Plateau could be increased in several ways. However, landowners and hunters alike will have to accept a stronger commitment to proper harvest of both sexes to increase the antlerless deer harvest significantly. The bottom line is clear; a new segment of hunters should be admitted to the ranks of Edwards Plateau deer hunters in an effort to increase the antlerless deer harvest by 200 percent.

Considering the history of chronic overpopulation of deer and the status of the habitat, anything less than a major increase in harvest will do little to put Edwards Plateau deer on the road to improvement in body and antler size. Even with a marked increase in harvest, improvements in deer quality would have to come through an overall range conservation-livestock management program. It will take some major decisions on the part of landowners and hunters to face this question: Do we want a pint-sized deer under every bush and spike antlers on half of the bucks, or do we want quality deer that hunters will be proud of? We can't have it both ways. \*\*

A contribution of Pittman-Robertson Project W-109-R



LEROY WILLIAMSON

*Successful restocking efforts have placed deer on nearly every square foot of acceptable range. It is the hunters' responsibility to harvest an adequate number of antlerless deer.*

early days of pregnancy. Or, the fawns may be so weak at birth that they do not survive. It's nature's way of regulating populations.

So consider this: A deer herd has to hustle for a meager living because the herd has grown too large for its food supply. The does produce 100 fawns—50 male and 50 female. Many of the deer die from causes associated with poor nutrition. And, all the while, the habitat gets worse because of all the deer. If the landowner takes extra hunters who are primarily doe hunters, the doe harvest reduces the herd

**W**hat can be done to encourage greater harvest of antlerless deer in the Edwards Plateau? Is there any way to get more hunters afield so that more deer can be harvested?

Economic incentive and tradition usually control the actions of Edwards Plateau farmers and ranchers. Traditions are hard to break unless progressive individuals in a community try new techniques that are successful. There is little hope of an adequate deer harvest unless the number of hunters is increased. One way this might be ac-

# Improve Hunting Success

by Ray Sasser

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When deer season opens in Texas, it appears that the odds favor the hunters. Texas has more deer than any other state and a higher hunter success rate.

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**I**mpressive as this sounds, there still is plenty of room for improvement when hunters go afield.

Harvest of the antlerless segment of the herd continues to be disproportionately low in spite of repeated advice from biologists that overpopulation of deer herds is severe in many areas of the state. The decision not to take antlerless deer is a deliberate one with many hunters, but the fact remains that mistakes and poor hunting techniques contribute heavily to their lack of success. To make sure this doesn't happen to you this season, here are some common deer hunting mistakes you should avoid:

(1) Many hunters don't know how to look for a deer. Horace Gore, White-tail Program Leader for Parks and Wildlife, says too many occasional hunters think of whitetails as much larger animals than they really are.

"When you regularly look at a lot of deer, they tend to jump out at you," explains Gore. "But take an old boy who only deer hunts two or three times a year and you may have to tell him which side of a tree the deer is standing on. Even a big whitetail is not a very big animal. He'll only stand about 32 to 34 inches high at the shoulder."

Gore usually spots the deer by its silhouette and he may see only a piece of that shape if the animal is in cover. Hunters who go around looking for the whole deer greatly diminish their odds, particularly where quality bucks are concerned.

"That may be one reason so many yearling bucks are killed in Texas," Gore says. "Yearlings are not too wary and they're likely to stand around in the open where you can see them. The hunter, if he doesn't look carefully,

won't even see that mature buck standing back in the brush 65 yards away."

Binoculars are an excellent deer hunting tool but Bob Cook thinks hunters misuse binoculars and, by doing so, often miss an excellent shot. Cook manages game on the South Fork Ranch near Kerrville, a 35,000-acre

ranch that yielded 145 trophy bucks last season.

"Hunters should look for deer with their binoculars," explains Cook. "Once you see the deer, look at the animal with your rifle scope. That way, if it's a deer you want to shoot, you can do so very quickly."

RAY SASSER



*Hunters occasionally get to see the whole deer, but more commonly catch a glimpse of only a portion of the animal.*

"You often won't get much time to look over a deer. The animal may be moving in and out of cover. If you look at him with the binoculars, then judge him good enough to shoot, he may be gone by the time you get the rifle up."

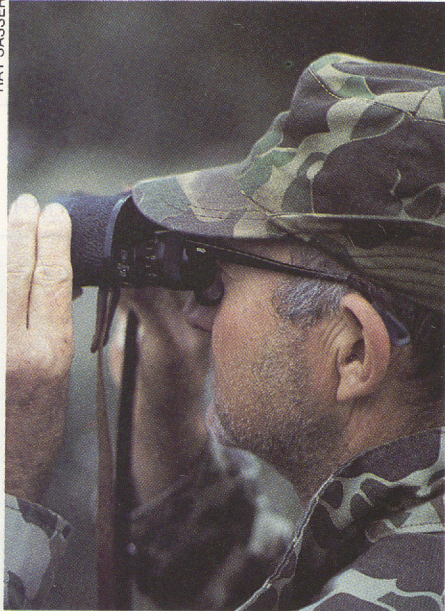
(2) Patience is the prime virtue of a deer hunter. Cook says the number one mistake hunters make is not sitting still.

"Deer are so far ahead of any other animal when it comes to hearing and

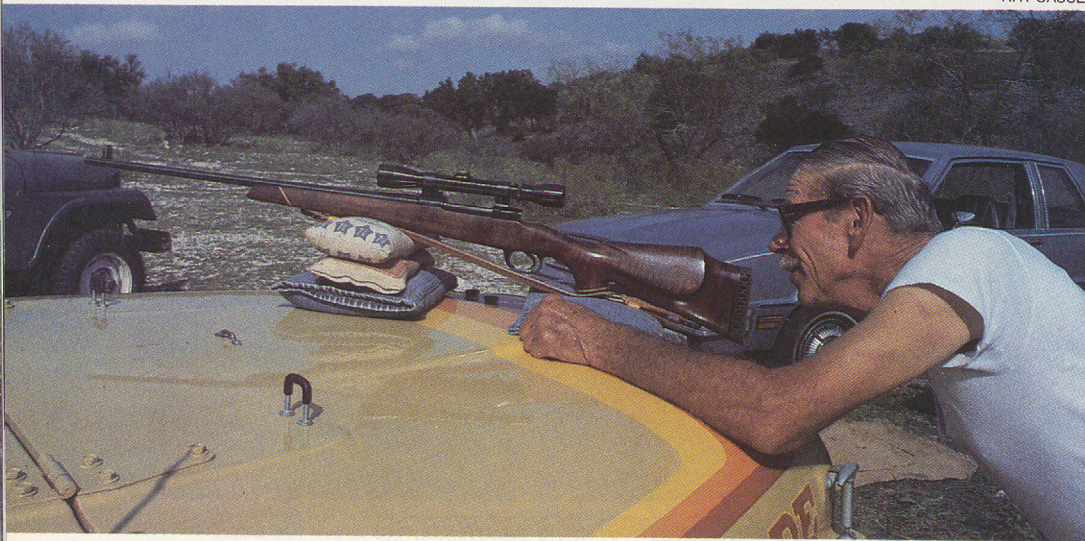
RAY SASSER

*Binoculars are helpful in locating a deer, but the animal may be gone by the time you switch to the rifle scope. Hunters who only fire a few rounds per year from a bench rest can't expect to shoot accurately in the field without a rest of some kind.*

RAY SASSER



RAY SASSER



sense of smell it's not even funny," he explains. "If you get out in a pasture and walk around, kick some rocks, stomp here and there, every deer close by is going to know you're there. I've seen it happen too many times at South Fork. We'll put an impatient hunter in a good pasture and he'll get up and start moving around. Almost invariably, about midmorning, he'll come back in and say there aren't any deer in that pasture. The next hunter we put in the same spot will sit still and kill a good animal."

(3) Too many hunters think that deer are active only early and late in the day. They go out before daylight, hunt until 9 a.m. or so, go back to the camp and go back out the last three hours of daylight. Cook says they're missing out on a lot of deer activity.

"At South Fork, we hunt all day long. There's pretty good whitetail activity from 11 a.m. until 2 p.m. and there are lots of good deer killed that time of day. You'll never see them if you're taking a nap or playing cards at the camphouse."

(4) Even hunters who have the patience to sit quietly and watch for deer all day long often don't know where to sit. Kerr Wildlife Management Area leader Donnie Harmel says this is due to an inability to read deer sign.

"I find that hunters simply can't read sign. They don't know how to look for a deer trail. They can't recognize a fresh scrape. They don't recognize crawls where deer cross under a fence—they're just not attuned to the signs that will tell them where to hunt deer."

Harmel suggests that hunters check deer activity by brushing out the tracks they find on a trail or at a fence crossing. By rechecking the spot the next day, they can determine if deer have traveled through the area since the tracks were wiped out.

Since most Texas deer range is fenced and cross-fenced, fence crossings are always excellent places to ambush a deer. Whitetails show a decided preference to cross fences at certain spots, either by jumping or by crawling under a wash or a low spot under the wire. You can determine a good crossing by looking for tracks and by inspecting the wire for deer hair that's been rubbed off.

Buck scrapes are the best indications of a buck's presence in a general area



*Being in the field only in the early morning and late afternoon restricts the hunter. Deer also are active from 11 a.m. to 2 p.m.*

(5) It's amazing how many deer hunters hit the field each November without shooting their rifles. This is a common error that can lead to a missed shot, or worse, a crippled deer.

"Deer hunters just don't do enough shooting with their centerfire rifles to be proficient with them," says Horace Gore. "Of course you need to shoot the rifle before a hunt, just to make sure it's zeroed properly. Even if the gun is shooting perfectly, you need to shoot at something 10 times or so just to get the feel of the rifle you don't shoot very often."

Along the lines of accurate shot placement, hunters should be certain they pack plenty of ammunition for their hunting trip. Use the same ammo—brand, bullet weight and bullet design—for hunting that you used to sight in the rifle. A change in ammunition brands may affect bullet placement. The same is true if you change bullet weights within the same brand of ammo. And never assume that a rural hardware store near where you hunt will carry the specific ammunition you shoot. Better to pack more bullets than you'll need.



RAY SASSER

(6) Another mistake deer hunters often make is taking shots at running deer or taking shots from an off-hand position instead of bracing the rifle against a solid rest. A whitetail on the move is a very difficult target, a mark that only the expert rifleman can expect to hit. It's better not to shoot at all when the deer is running.

The same is true with the off-hand position, which most deer hunters never practice. Rifles are precision weapons requiring a steady hold for accurate shot placement. Hunters who fire a few rounds per year from a bench rest can't expect to shoot accurately without a rest.

and, in thick cover, are the only solid connection a hunter may have to a mature buck that's hard to see. A scrape is a pawed-out area of earth under an overhanging limb. Bucks urinate in the scrape, rub their facial glands against the limb and chew it to leave their scent.

Scrapes presumably serve as a warning to other bucks and also as an attraction to does that are ready to breed. An active scrape is worked over by a buck on a regular basis and generally has a strong odor.



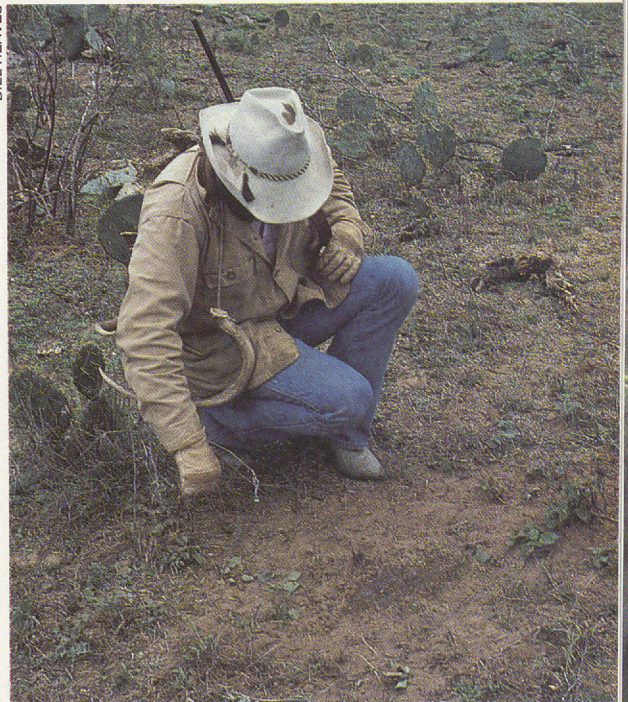
BILL REAVES

BILL REAVES

*Too many hunters can't read deer sign. They don't recognize crawls where deer cross under a fence. They miss fresh scrapes that mean a deer is in the area, and they don't know how to study the ground for tracks.*



RAY SASSER



A deer stand should be built or selected to afford a solid rifle rest. A makeshift rest against a tree, fencepost, rock or two crossed sticks (an old buffalo hunter's trick) will help steady a rifle for accurate shooting.

(7) Never assume, when a deer shows no obvious reaction to your shot, that the bullet missed. This is a sadly common mistake among Texas hunters who expect their shot to flatten the deer in its tracks.

"A lot of deer are lost every year because hunters don't thoroughly check the results of every shot," notes Gore. "Depending on where the deer was hit, it may not go down or it may not show much of a reaction. So many hunters flinch when they shoot a high-powered rifle that they don't see the deer flinch or kick or spin around. All they see is the deer run off and they just assume they missed the animal. That deer may run out there in the cover 10 yards, 50 yards or 100 yards and fall over dead. The hunter should carefully follow up on every shot."



(8) A mistake hunters often make when they shoot at a deer is in not marking the exact spot the animal was standing. Pick a prominent landmark and walk directly to the spot putting down a hat, handkerchief or other reference when you get there.

Otherwise, you may never get near the spot where the deer was standing and where blood or hair may indicate a hit. That's particularly true when taking long shots in rough terrain.

(9) A biological mistake that Texas whitetail hunters frequently make is passing up does they could legally kill and concentrating efforts on bucks. While most hunters would like to shoot a trophy buck, they're defeating their purpose by contributing to an unbalanced herd.

"The biggest problem in deer management is the underharvest of does," explains Gore. "What we've essentially got in Texas is a lot of buck hunters who would like to kill a good buck. Instead of shooting does and letting the young bucks live long enough to be good bucks, they wind up taking just any buck over an antlerless deer."

"In some cases the hunters have good intentions. They know they need to fill antlerless deer permits but they put it off until late in the season when the does are often wilder than the bucks. Landowners who are serious about management have started requiring their hunters to fill their doe permits before they start buck hunting." (See story by Gore and Fred Bryant on page 30 of this issue.)

Taking does early in the season is good management because it removes animals from the range before browse conditions get critical in late winter.



Deer are also in their best physical condition early in the hunting season and make better eating than is the case after they have been under stress from hunting pressure or bad weather.

(10) Texas deer hunters also tend to commit some legal mistakes that can get them in trouble with the game warden, cost them a fine and spoil an otherwise enjoyable deer season.

Texas law requires hunters to properly tag an animal as soon as it's killed. It's common practice to wait until the deer is transported back to camp before the tag and/or antlerless permit is affixed. If the game warden happens



RICHARD MOREE

*A deer stand should have a solid rest to steady the rifle for accurate shot placement once the buck or doe is sighted.*





RAY SASSER



RAY SASSER

*Many deer are lost each year when hunters fail to check the results their shots. Just because a deer runs off does not mean the animal was missed. A hit deer may not drop immediately or show much reaction, but it may run only 10 or 20 yards into cover before falling over dead. (Note the usually erect tails on these fleeing whitetails are down.)*

RAY SASSER



to be at camp when you drive up with an untagged deer, a citation is sure to follow.

Another common violation is butchering deer in camp. The law requires that deer not be totally processed before reaching their final destination. The animal may be skinned and quartered but boning out meat and packaging it for the freezer is not permitted until the game reaches its final destination.

Legal and biological errors, as well as common sense hunting mistakes, can lead to a dismal deer season. Make sure they don't happen to you. \* \*



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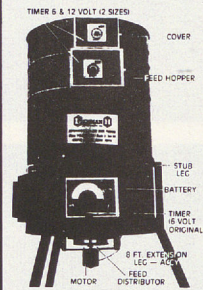
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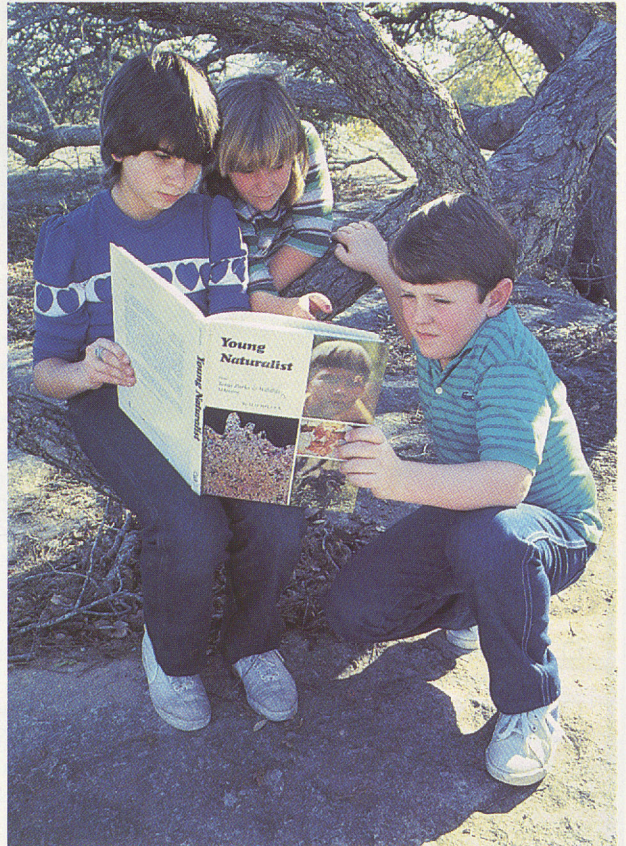
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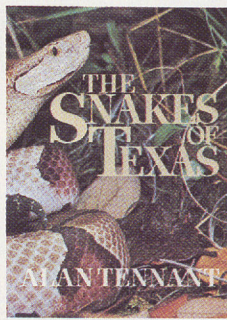




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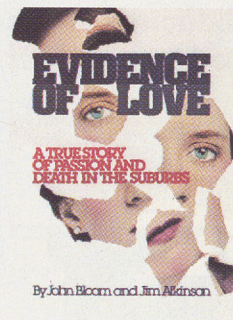
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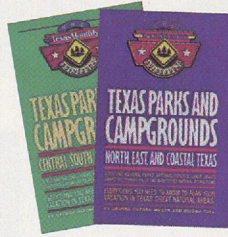
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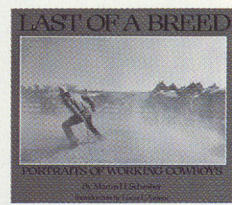


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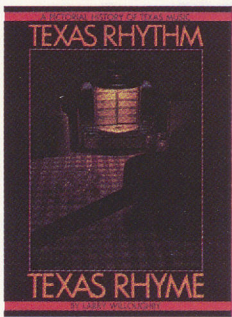


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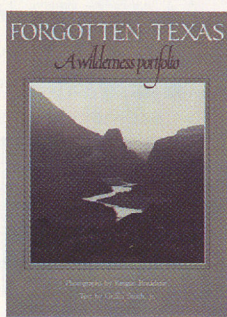
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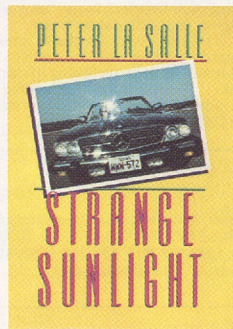
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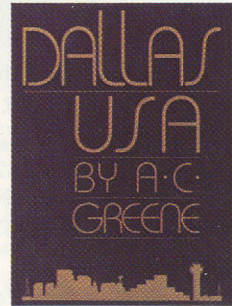
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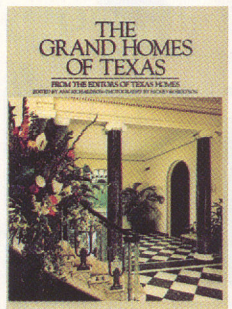
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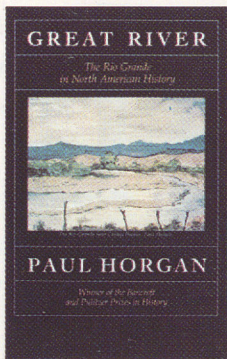
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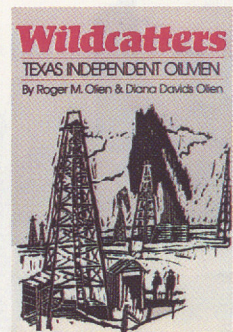
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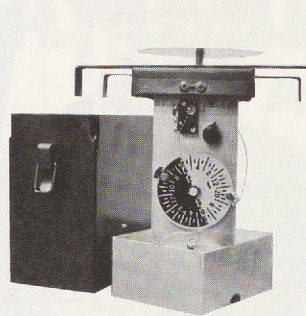
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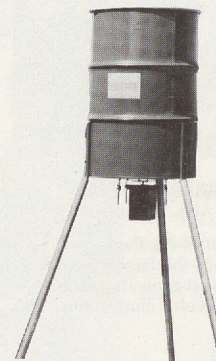
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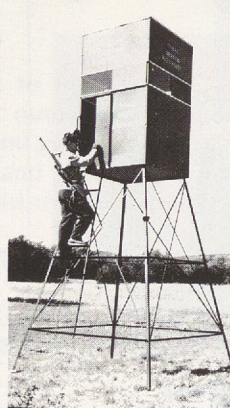


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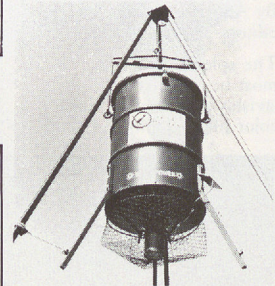


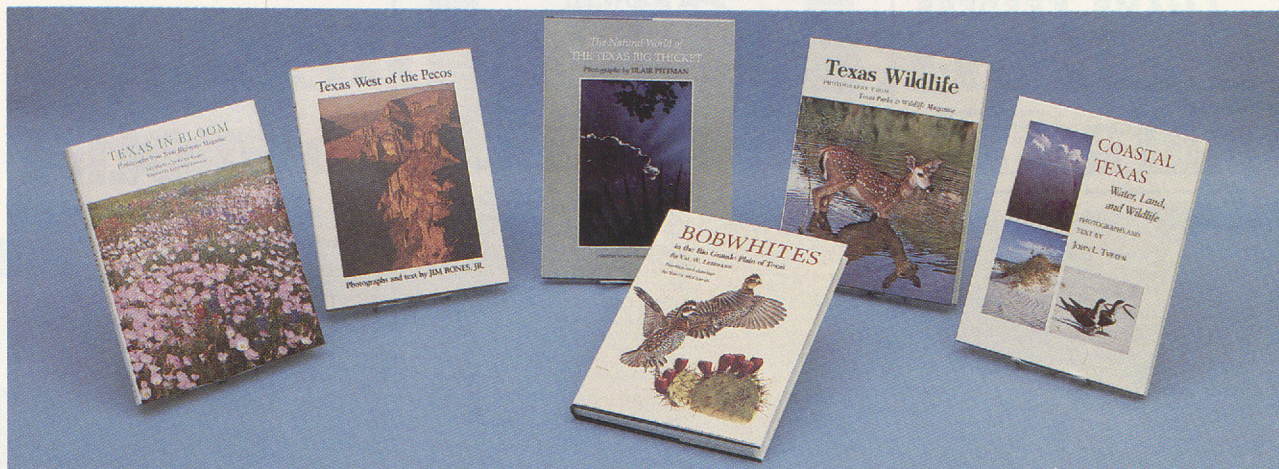
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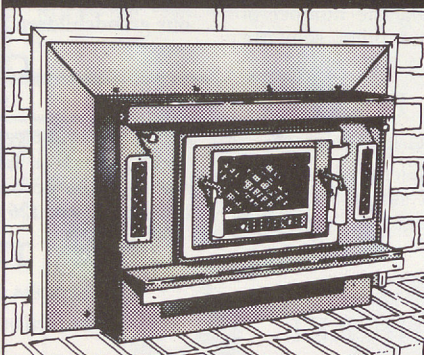
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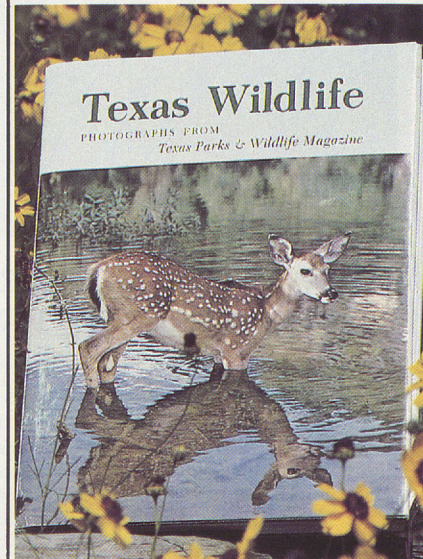


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# Letters to the Editor

## Hurricane History

Through the generosity of a good friend in San Antonio I receive a subscription to your fine magazine.

Regarding the preface to "The Greatest Storm on Earth" (September), you can be assured that the story in *The New Yorker* was quite correct. Mr. Arthur Mitchell (deceased) of Dune Road, Westhampton Beach, Long Island was the unfortunate gentleman, and he related the story to me personally on several occasions.

Westhampton Beach is on the south shore of Long Island about 80 miles east of New York City and was hit by the center of the 1938 storm. Unfortunately, over the years and to the very present we have suffered considerable damage from just plain storms, let alone hurricanes.

Edward H. Rogers, Jr.  
Westhampton Beach, New York

## Factors Affect Survival

Regarding Bob Taylor's letter in the August 1984 issue on "Survival of the Fittest," adaptive pressure does encourage survival of the fittest. However, the magnitude of change that a population encounters is very important in considering "survival of the fittest." A population cannot adapt overnight or even in months or years to toxic chemicals in water and food, loss of habitat or excessive human intervention. To measure "fitness," there must be descendants in a future population.

Becky Wittenburg  
Austin

## Hypocrisy

This is in reply to Mr. and Mrs. W.T. Newsom who wrote about hunting as a barbaric practice (September).

A hypocrite is a person who eats animal or vegetable matter while condemning those who kill these animals and plants for him. I think those who never eat any animals or plants can sincerely take a position of finding hunting barbaric if they so desire.

Consider how much more defenseless a chicken, hog or cow on the way to the slaughterhouse is than a wild animal being hunted with at least some possibility of escape.

All the hunters I know have a greater respect for wildlife and at the same time subsidize ongoing wildlife research, restocking programs and game management practices which have resulted in greatly increased populations of game species.

There are many misguided folks of good

intent who seem to feel that it is morally superior to allow periodic severe overpopulation of game animals resulting in dieoffs due to starvation rather than shoot some of the animals and keep the populations optimal. Let the readers decide the moral issue. Another question is posed: Can we afford to waste this much protein in a world where people are also starving to death?

Charles T. Moore, M.D.  
Austin

## September Issue

I am appalled at the hunting articles in the September issue. I thought when I subscribed to your magazine that the title implied protection of animals, not killing. I assure you I will not renew my subscription.

Mrs. Dorothy L. Scarbrough  
Marble Falls

Your September issue is beautiful. I visited the Fulton Mansion several years ago. I felt sad because it was so neglected. Texas Parks and Wildlife has done a wonderful thing restoring the mansion.

The whole cover is so pretty.

Mrs. R.B. Vogel  
Corpus Christi

## Back Issues

I have recently found a number of back issues of your magazine from the early to middle 1950s with the beautiful paintings on the front. I subscribed to your magazine as a child and saved the issues.

If any of your current subscribers need back issues please put them in touch with me. I can't bear to destroy these beautiful magazines.

Alan P. Bloebaum  
San Angelo

■ Dr. Bloebaum can be reached at 3806 High Meadow Drive, San Angelo 76904.

## Safe Hunting

I strongly recommend state laws to require hunter safety schools and the wearing of fluorescent orange for anyone who hunts in Texas.

Three years ago I had my first opportunity to go elk hunting in Colorado. Before making the trip I took a hunter safety course and I can tell you that the information I received from the course and the safety rules taught us were very helpful during the hunt. In fact, one of our hunters became lost and had to stay in the forest overnight without fire or shelter. Again the information I had just received from the

course helped during the time of anxiety waiting for word of our lost hunter. He was found the next morning in good shape but mighty sleepy.

The compulsory wearing of fluorescent orange and attendance in a hunter safety course will save many lives in Texas.

Gene Prickette  
Waco

## Stick to Hunting and Fishing

*Texas Parks & Wildlife* magazine is trying to be too many things to too many people. I'm a sportsman and I want to see articles on hunting and fishing. We are the ones who provide the revenues to operate your agency. If your readers want to see flowers and parks, refer them to *Texas Highways* magazine. They do a wonderful job on the natural beauties of Texas.

Let's not forget where your roots are—the Texas Game and Fish Commission. And don't forget the people who bear the financial responsibilities to promote and preserve Texas' natural resources—the sportsmen.

Mark B. Hickey  
San Antonio

## Dove Names

In the article, "Texas' Newest Game Bird" (September), you listed the mourning dove as *Zenaida macroura*. According to my sources it is not of the *Zenaida* genus but of the genus *Zenaidura*. I know there is much change in regard to the classification of similar species of animals, but would you please clarify whether the mourning dove should be called *Zenaida macroura* or *Zenaidura macroura*.

Charles Hunta  
Taylor

■ The correct name for the mourning dove is now *Zenaida macroura*. In a 1973 supplement to the American Ornithologists Union Checklist, the mourning dove, previously *Zenaidura macroura*, was placed in the genus *Zenaida*, along with the white-winged dove.

## INSIDE BACK COVER

Fall turkey season over most of the state runs concurrently with deer season, November 17 through January 6. Check a copy of the 1984-85 Texas Hunting Guide for county-by-county regulations. This potential Thanksgiving dinner was photographed by Wyman P. Meinzer Jr.



