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PARKS & WILDLIFE



December 1975 • 50¢



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magazine**

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

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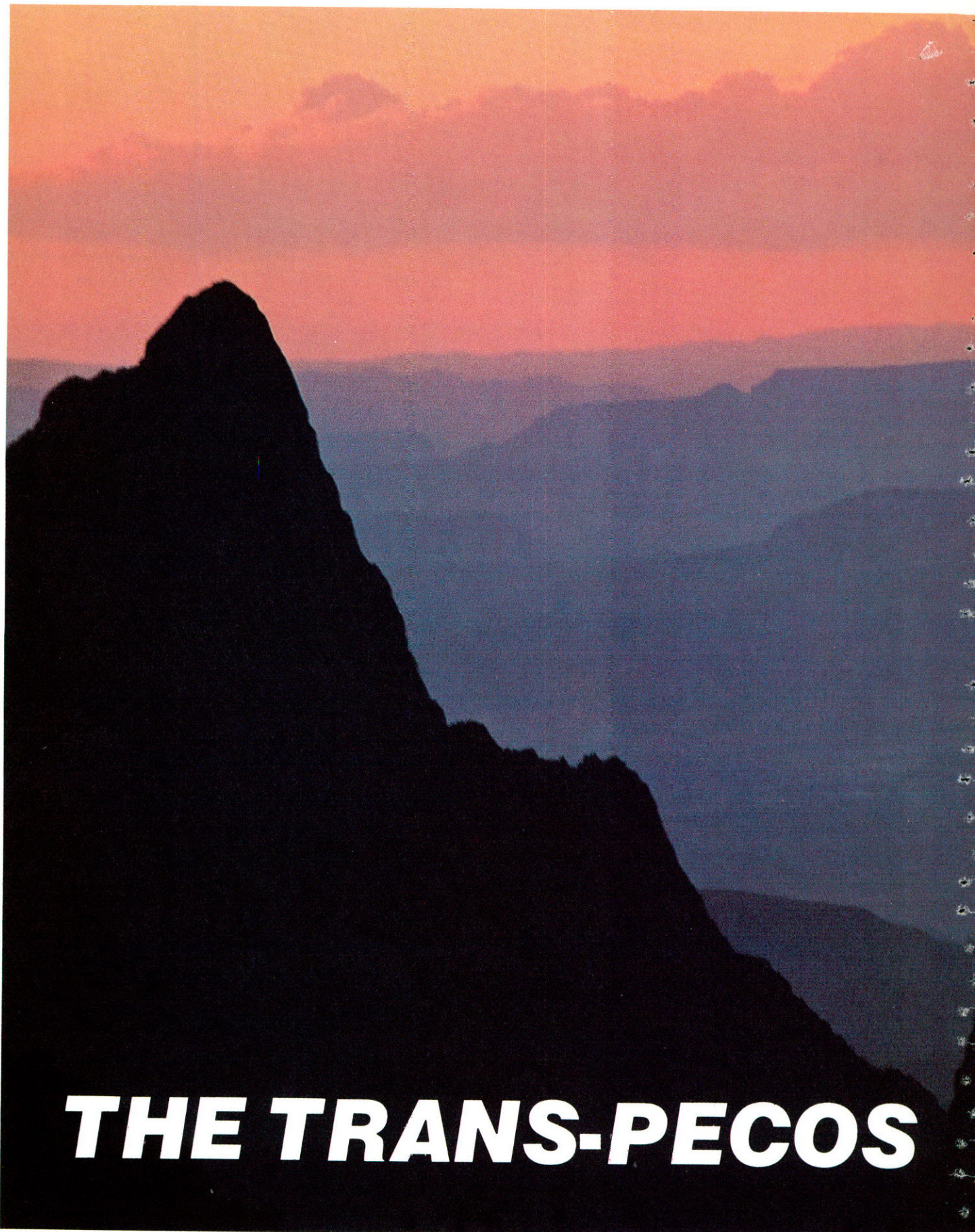
TEXAS PARKS & WILDLIFE

- The Trans-Pecos** by Ilo Hiller 2
Rugged mountain scenery and varied recreational opportunities await the visitor to this western portion of the state.
- Cold-weather Casting** by Al Pancoast Jr. 12
Coastal fishermen who brave winter's adverse conditions usually find the effort rewarded.
- Cacklers Along the Rio Grande** by Wayne R. Marion 16
Of all the birds in Texas, chachalacas are certainly one of the loudest but least conspicuous.
- All of the Parks** by Ilo Hiller 20
Visiting them all became a five-year project for Frank and Hope Paschal of Fort Worth.
- Drop Net** by Greg Butts 24
This effective equipment enables wildlife personnel to trap and transport game birds and animals.
- Young Naturalist: Patterns in Nature** by Ilo Hiller 30
Take a closer look at the things around you and learn to appreciate nature's textures.

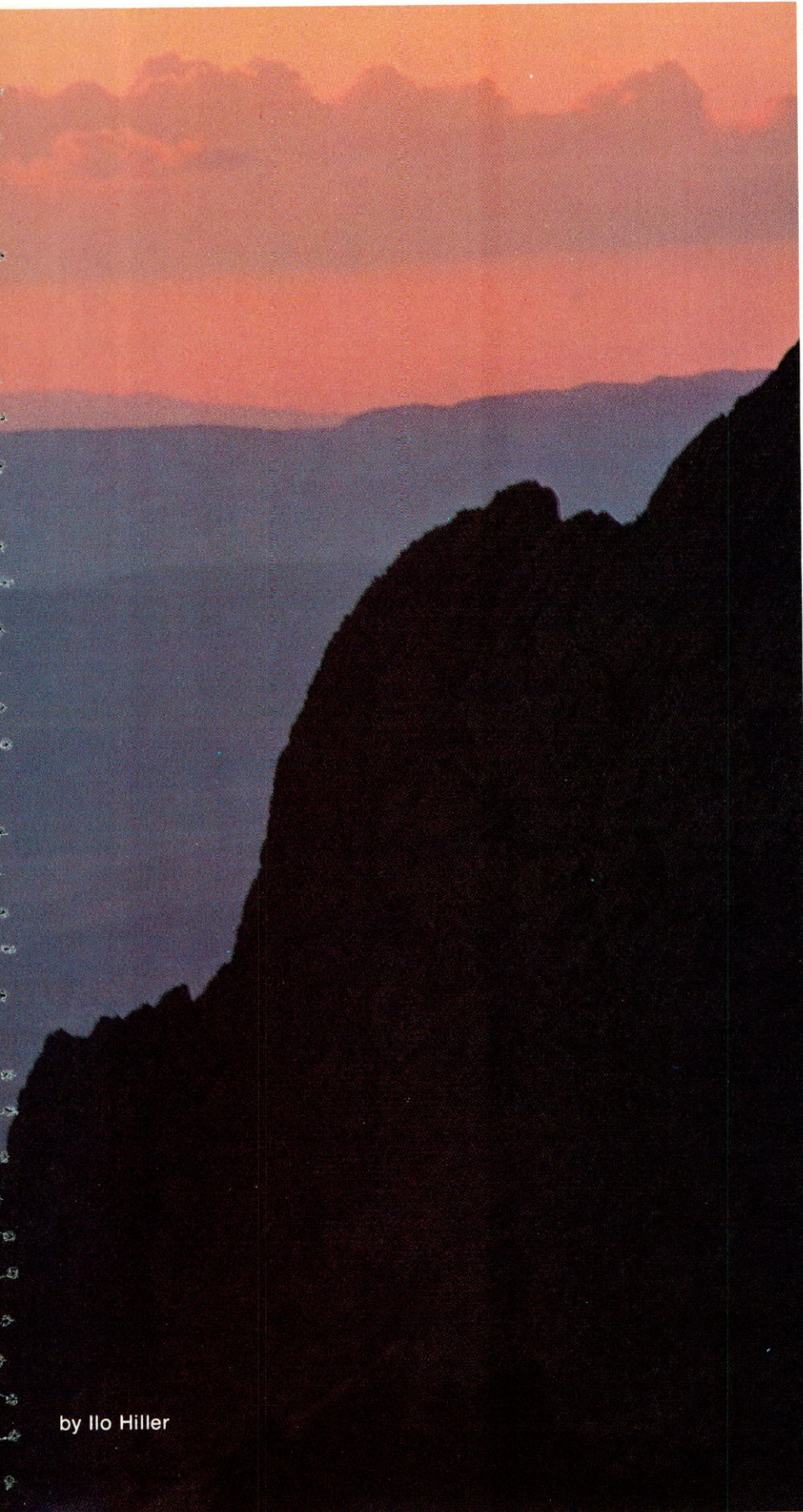
Photo and Art Credits15 Long Shots, Short Casts15
Letters to the Editor32

Front and Back Cover: Big Bend's scenic beauty has something new to offer the visitor with each changing season. A drive along the road leading to the basin at this time last year provided our photographer with this ice-coated, mist-shrouded view. Photo by Bill Reaves.

Inside Front: Many quail hunters rely on the able help of a good dog to retrieve their downed birds. Photo by Martin T. Fulfer.



THE TRANS-PECOS



by Ilo Hiller

While discussing on a television panel show the discovery of the fossil skeleton of a giant prehistoric pterodactyl in West Texas, the guests began to speculate just how this giant flying reptile launched itself. Most of them agreed that it probably had to leap from a high place in order to catch air currents that would help support its large body; however, one female panelist disagreed. She said that everybody knew Texas was flat, so where would they find anything tall enough to jump from. She further stated that Texas certainly had no mountains.

Obviously this television personality has never visited the Trans-Pecos area of our state where as many as 90 peaks rise more than a mile high; but her mistaken views on Texas topography are shared by many people. They are unaware that a mountain range runs through the western portion of our state, extending into New Mexico on the north and Mexico on the south. This range is considered the southern extension of the Rockies; however, it does have some Sierra Madre characteristics, especially in the Chisos Mountains.

Awaiting the Trans-Pecos visitor are dramatic mountain vistas with a special, rugged grandeur. Spectacular sunrises and sunsets, mist-shrouded peaks, rocky cliffs projected against a clear blue sky, a tranquil mountain pool nestled deep in a rocky canyon, ponderosa pines in a mountain meadow, unsurpassed hiking areas, unique vegetation, varied wildlife and the hostile beauty of sun-washed deserts are all there to see and enjoy.

First-time travelers in the area are usually amazed by the truly "wide open spaces." Broad expanses of land stretch off into the horizon and visibility is fantastic. In fact, visibility is so good that distances are often deceiving. Who would suspect that the range of mountains seen just ahead was actually as far away as 60 miles?

Since large ranch holdings claim most of these open spaces, this land can only be enjoyed from the highway. However, this is no great hardship since from his car the traveler can see much of the scenic beauty as well as many different types of wildlife — antelope, mule deer, whitetails, javelina, sandhill cranes, hawks, ducks, doves, quail, roadrunners and many other species of birds — depending upon the location and season.

Those fortunate enough to be in one of the desert areas after one of the infrequent spring rains may be treated to



a spectacular sight as the desert vegetation bursts into bloom. The waxy-white blooms of the daggerlike yuccas are unsurpassed in beauty in the spring and the brilliant cactus flowers must be seen to be believed.

As you travel through these wide open spaces, enjoying the scenic panorama unfolding outside your window, let your mind wander back into the past. Think about the travelers of yesteryear in their wagon trains as they covered this same land and faced its challenges and hardships. Imagine it taking you three days to cover the same distance your car can travel in little more than an hour and you will be able to get the proper perspective on what they accomplished.

Fortunately for those who really appreciate the mountain-desert regions and do not merely wish to pass through them, not all of the lands are restricted by private ownership. As much as one million acres are accessible to the public in the form of state and national parklands and state wildlife management areas. On these acres the traveler can leave his car and experience a special oneness with the land that has been preserved for his enjoyment.

One of these areas, Davis Mountains State Park, lies in an especially scenic portion of the Davis Mountains foothills. Its 1,869 acres include the most scenic part of Keesey Canyon and a section of Limpia Canyon.

The park features campfire programs (held during the summer in the park amphitheater); an interpretive center (also open during the summer); trailer, camping and picnicking sites; nature study and sightseeing areas; a four-mile hiking trail connecting the park with Fort Davis National Historic Site; and a scenic drive with two overlooks almost 6,000 feet above sea level. Here you will be able to enjoy mountain vistas unchanged since the time of the Apache. Mount Livermore, with its elevation of 8,382 feet, can be seen on this scenic drive.

Another attraction of the park is the 39-room, white, pueblo-style, multi-level Indian Lodge with dining room, recreation room and heated swimming pool for guests. Many of the walls of this structure are more than 18 inches thick. Advanced reservations should be made for the lodge.

History buffs will especially enjoy visiting nearby Fort Davis National His-

toric Site. Ft. Davis, a U.S. Army military post, was established in 1854 at the crossroads of the Butterfield Overland Mail Route and the Chihuahuan Trail to provide protection for westward travelers and to serve as a watering stop for stagecoaches and wagon trains. However, establishing it was not an easy matter to accomplish in Indian country. The first Ft. Davis troops not only had to fight hostile Indians on the way to the chosen fort site, but also had to fight them off during construction.

This fort became the hub of warfare with the Indians and years of bloody conflicts passed before the Indians were finally subdued. Deactivated in 1891, Ft. Davis began its inevitable journey to ruin through neglect until 1961 when it was declared a National Historic Site. Restoration work since that time by the National Park Service has made Ft. Davis one of the most extensive and impressive existing examples of Southwestern frontier forts.

An excellent museum displays artifacts, photographs and dioramas of the fort's history, but one of the most impressive features to many visitors is the elaborate sound production of a military retreat parade. Even though



the sounds of the music and the mounted review echo over an empty parade ground, by closing your eyes you may be transported back in history to the time when troops and horses stirred the dust of these grounds. For those of you who prefer to view history unchanged, the National Park Service has left some of the fort ruins in their weathered dignity.

If your time in the Trans-Pecos is short, you may find that the 74-mile scenic loop through the Davis Mountains on Texas 118 and 166 from and back to Fort Davis will provide enough mountainous scenery for your enjoyment.

Because of their mass and elevation, the Davis Mountains intercept more precipitation than most of the arid Trans-Pecos country. As a result, this area is greener and supports more vegetation. In fact, the most extensive mixed-conifer forest in the Trans-Pecos occurs in the upper elevations of the Davis Mountains.

In the days of the western migration, Limpia Creek and its surrounding valley served as a rest stop for many wagon trains. In this valley the trail-weary travelers could stay for a while to

rest themselves and their animals. Limpia means "clear" or "clean" in Spanish.

Marked vegetational differences occur on the northern and southern mountain slopes of this range. Since the southern slopes receive more intense sunlight, which makes the ground warmer and increases the rate of water evaporation, yucca, agave, various types of cacti and other desert species predominate. Taller range grass, Emory and gray oaks, alligator and oneseed junipers, madrone and other trees are found on the northern slopes or in protected canyons.

Another public area, located on the southern tip of the Trans-Pecos, is Big Bend National Park. Here 707,895 acres have been set aside to preserve this section of the Chihuahuan Desert found along the Texas-Mexico border. The terrain varies from an arid desert to the spectacularly rugged Chisos Mountains that dominate the park. Emory Peak, highest point in the Chisos and the park, rises to an elevation of 7,835 feet.

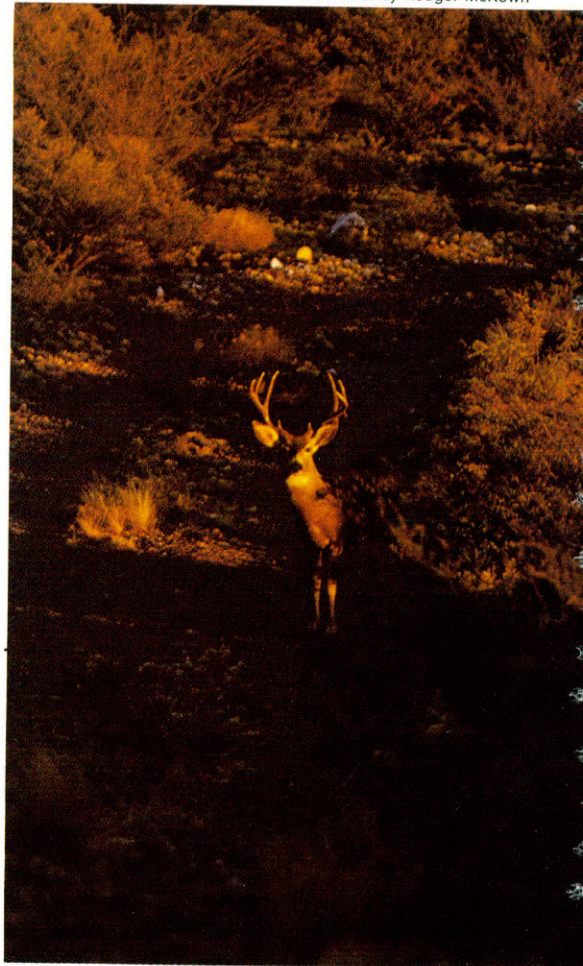
Rainfall ranges from eight inches in the lowlands to 15 inches in the mountains with July, August and September

A wide variety of outdoor activities await the visitor to Big Bend National Park. Some may prefer to backpack in the Chisos Mountains (extreme left), while others face the challenge of a float trip on the Rio Grande through the spectacular Santa Elena Canyon (above). Those who do not wish to be quite so physical in their activities may enjoy a stroll along a nature trail or a drive within the park to observe the scenic beauty of the area.

Pronghorns by Martin T. Fulfer



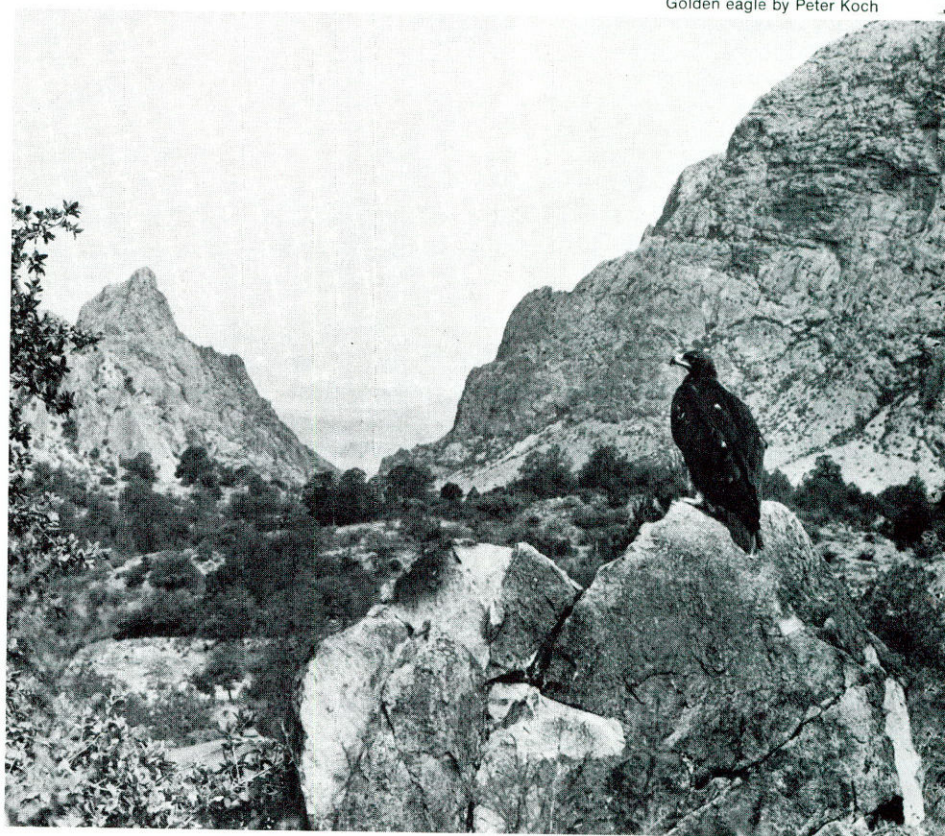
Mule deer by Rodger McKown



White-winged dove by Martin T. Fulfer



Golden eagle by Peter Koch

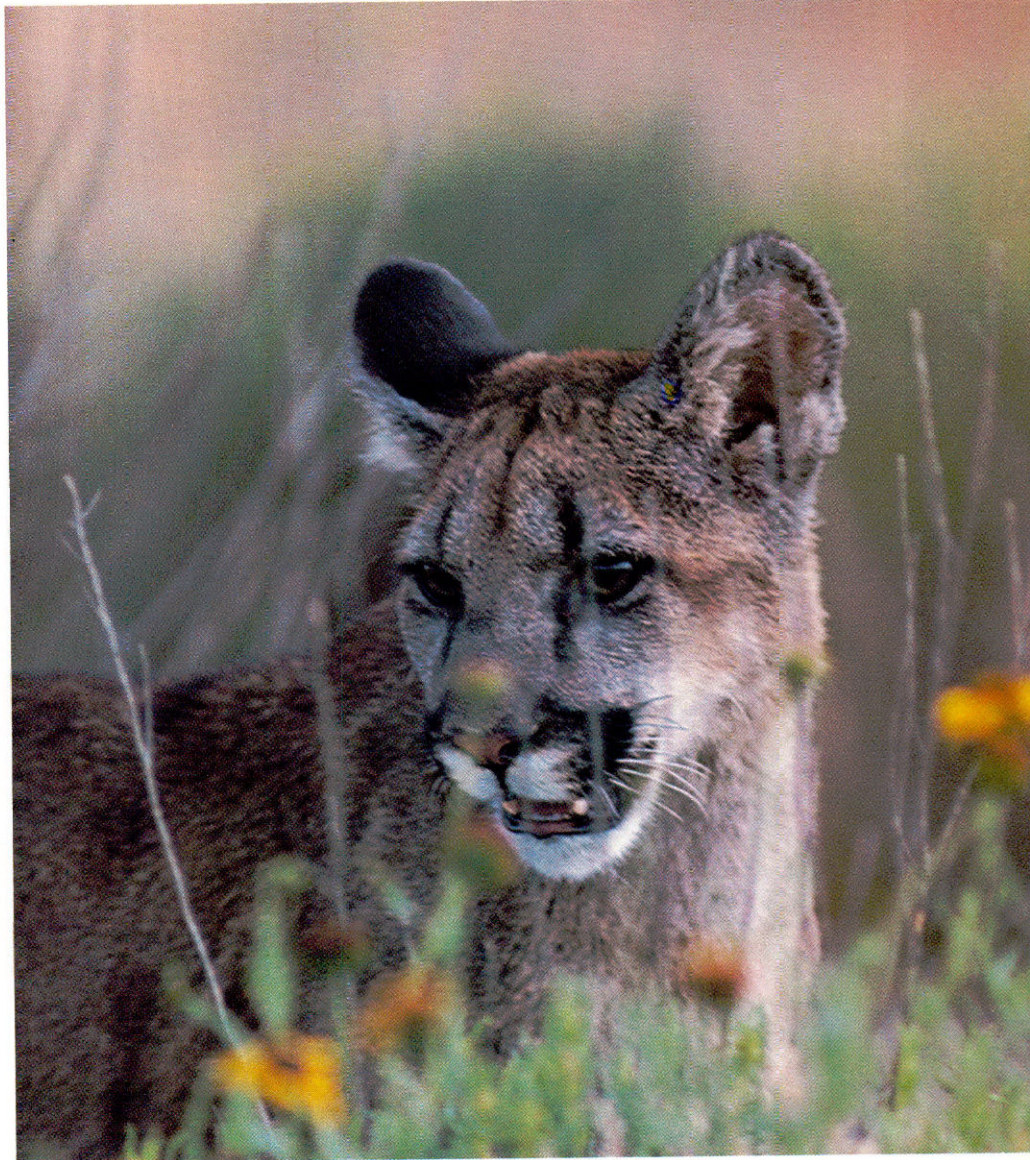


Both game and nongame species of wildlife abound in the Trans-Pecos. Visitors may catch a glimpse of a herd of fleet-footed antelopes or spot a solitary mule deer. Big Bend National Park's rugged terrain serves as a breeding ground for the elusive mountain lion and affords a hunting ground for the majestic golden eagle.

comprising the rainy season. Temperatures range from -3° in the mountains in the winter to 115° along the Rio Grande in the summer. As a result, summer is the best time to head for the higher elevations where daytime temperatures are a comfortable 85° and the nights are cool.

The park's 1,100-square-mile area encompasses the lowlands along the Rio Grande, the foothills and the mountains themselves. It therefore, presents an interesting ecological variation. Creosote bush, mesquite, ocotillo, lechuguilla and cacti on the lowlands blend with the sotol, daggers, catclaw, Mexican buckeye, little walnut, desert willow and shrubs of the foothills. Pinyon pine, weeping juniper, alligator juniper, madrone, evergreen sumac, century plant, bear grass, yucca and several species of oak are found on the slopes of the mid-elevations while in the sheltered, moist canyons of the higher elevations, Arizona cypress, Douglas fir, maple and ponderosa pine grow. A localized community of aspen, comprised of about 225 trees, is found only on the high, rocky slopes below the west and north sides of Emory Peak. It is interesting to note that the woodland areas of Big Bend comprises only about two percent of the total park acreage and is limited to the higher elevations.

In addition to the dramatic scenery and varied vegetation, Big Bend also offers the visitor the opportunity to observe many types of wildlife. Mule deer are found on the lowlands and slopes below 5,000 feet while the Sierra del Carmen whitetails appear in the higher mountain elevations. Javelinas, desert fox, coyotes, bobcats, badgers, raccoons, jackrabbits and desert lizards roam the flats; beaver can be found along the river; and gray fox, ringtails, rock squirrels, several varieties of skunks and numerous small rodents are found in the mountainous areas. Many snake species, both poisonous and non-poisonous occur throughout the park. The six poisonous species in-



clude the Trans-Pecos copperhead and the prairie, northern, black-tailed, western diamondback, mojave and mottled rock rattlesnakes. Over 300 bird species have also been sighted in the park area, but the roadrunner, scaled quail, cactus wren and mockingbird are the most common ones seen on the flats. Birders who wish to see the greatest variety of birds should plan to visit during the last two weeks of April and the first week of May.

Big Bend is known to be a breeding area for the mountain lion and you may be fortunate enough to catch a glimpse of one of these big cats. Most sightings have occurred in the vicinity of Panther Pass during May and June. If you do not see one of the cougars, you may still find the tracks of one along the river.

Located about 55 miles south of Marathon beside Big Bend National

Park is the largest wildlife management area in the state — Black Gap. Its 100,000 acres, from which all domestic livestock has been excluded, are being used to study conservation practices for improving West Texas range conditions. In this arid region with only an eight-inch annual rainfall, studies are also being conducted on methods of efficiently collecting, storing and utilizing moisture in all its forms for wildlife.

Game species being researched are the desert mule deer, desert bighorn sheep, javelinas and scaled quail. Other game and non-game species on the area include the pronghorn, Gambel's quail, mourning and white-winged doves, ducks and many species of birds and reptiles.

The southern boundary of this management area is formed by 25 miles of the Rio Grande and fishing is available to the public at no charge. There are 25

Claret cup cactus by Neal Cook



Apache plume by Jim Whitcomb



Cenizo or purple sage by Jim Whitcomb





Long-spined prickly pear by Jim Whitcomb



primitive camping shelters which consist of concrete slabs with sheet iron roofs. There is no drinking water and only minimal sanitary facilities. Access is not permitted during the deer and javelina seasons. Visitors should be prepared to drive over 15 to 18 miles of dirt road, the condition of which varies with the rainfall. A pickup or other rough-country vehicle will be more practical than a passenger car.

Another wildlife management area in the Trans-Pecos is Sierra Diablo which lies 20 miles northwest of Van Horn. Its 7,791 acres have no public use facilities and, since access to the area lies through private land, visitation is limited to the time of the special public hunts.

Sierra Diablo was purchased originally to preserve the remnants of the native desert bighorn sheep, but the native sheep had vanished by the mid-fifties. Bighorns were reintroduced on the area in 1973 and these animals along with the desert mule deer are being studied.

On the northern border of the Trans-Pecos lies Guadalupe Mountains National Park, established in 1972. Its 77,582 acres range from desert salt flats to mountainous terrain with a localized mixed-conifer forest. However, in the moist, sheltered canyons plants from several distinctive vegetational communities come together in a strange balance.

McKittrick Canyon, noted for both its beauty and rare plant and animal mixtures, is a good example. Its narrow gorges receive enough warmth for desert-adapted species to survive while its permanent water sources and canyon shadows enable the higher-elevation plants to also grow in abundance. One side of a narrow gorge with southern exposure may have such arid-adapted species as prickly pear, sotol, catclaw, yucca, century plants and other cacti while a nearby shaded slope has ponderosa pine, Douglas fir and bigtooth maple.

Fall can be especially beautiful in the

Vegetation in the Trans-Pecos varies from the arid desert plants to the bigtooth maples of the Guadalupe and the aspens of Big Bend. Visitors should also be aware that many of the plant species have spines or thorns of some type which can prove quite painful to the person who inadvertently touches them. A good pair of tweezers should be carried along for just such an emergency.



Both state and national parklands offer the Trans-Pecos visitor rugged scenic beauty and varied recreational opportunities.

Guadalupes as these maples create a kaleidoscope of color with their changing leaves contrasting with the gray of the mountains and the green of the evergreens.

If hiking appeals to your nature, you will find some 55 miles of trails ranging from day hikes and backpacking trips up steep, winding trails into the high country, to a level, but rocky, stroll along McKittrick Canyon. Scarcity of water should be taken into account by the hiker because once into the interior, no water can be expected. Most backpackers have found that it takes a gallon of water per person per day to handle trail and camp needs.

To preserve the beauty of the park, camping has been limited to 20 people for each designated primitive camping area on a first-come, first-served basis.

From the lowest hillsides to the highest pinacles, mule deer can be found. Elk, from a herd of 44 animals introduced in 1925 and 1926, now number in the hundreds. The black bear is also making a stand for survival in the Guadalupes. Porcupines, chipmunks, ground squirrels and numerous other rodents make their home in the park area along with bobcats and ringtails. Wild turkey and dozens of other bird species are present.

The stark cliffs of the Guadalupes dominate the landscape with 8,751-foot Guadalupe Peak holding the honor of being the highest point in

Texas. Three other peaks in the range are also above 8,000 feet in elevation.

It's hard to believe that these rugged mountains are a part of a barrier reef that had its beginning in the Permian era about 250 million years ago. Layer by layer the Capitan Barrier Reef grew, and this massive limestone deposit contains fossils of many varieties of marine life. Countless caverns have formed within the reef's limestone with the majority of them in the New Mexico portion. The most famous of these is Carlsbad Caverns, located northeast of the park.

Although not a part of the park itself, several large salt flats lie just west of the Guadalupes becoming an important part of any western view. As internal waters drained into this basin, salt deposits were carried onto the lowlands. Evaporation took care of the water leaving the transported salt to build up in thick layers. This process is still going on today and summer rains can create instant lakes in the usually dry salt basin.

Texas' westernmost state park, Hueco Tanks, is located west of the Guadalupes. This park offers 860 acres of scenic and recreational opportunities that are unique. Here the visitor can see the natural cisterns that gave the park its name. The Spanish name *hueco* (pronounced WEH-co) means "hollow place" or "hole."

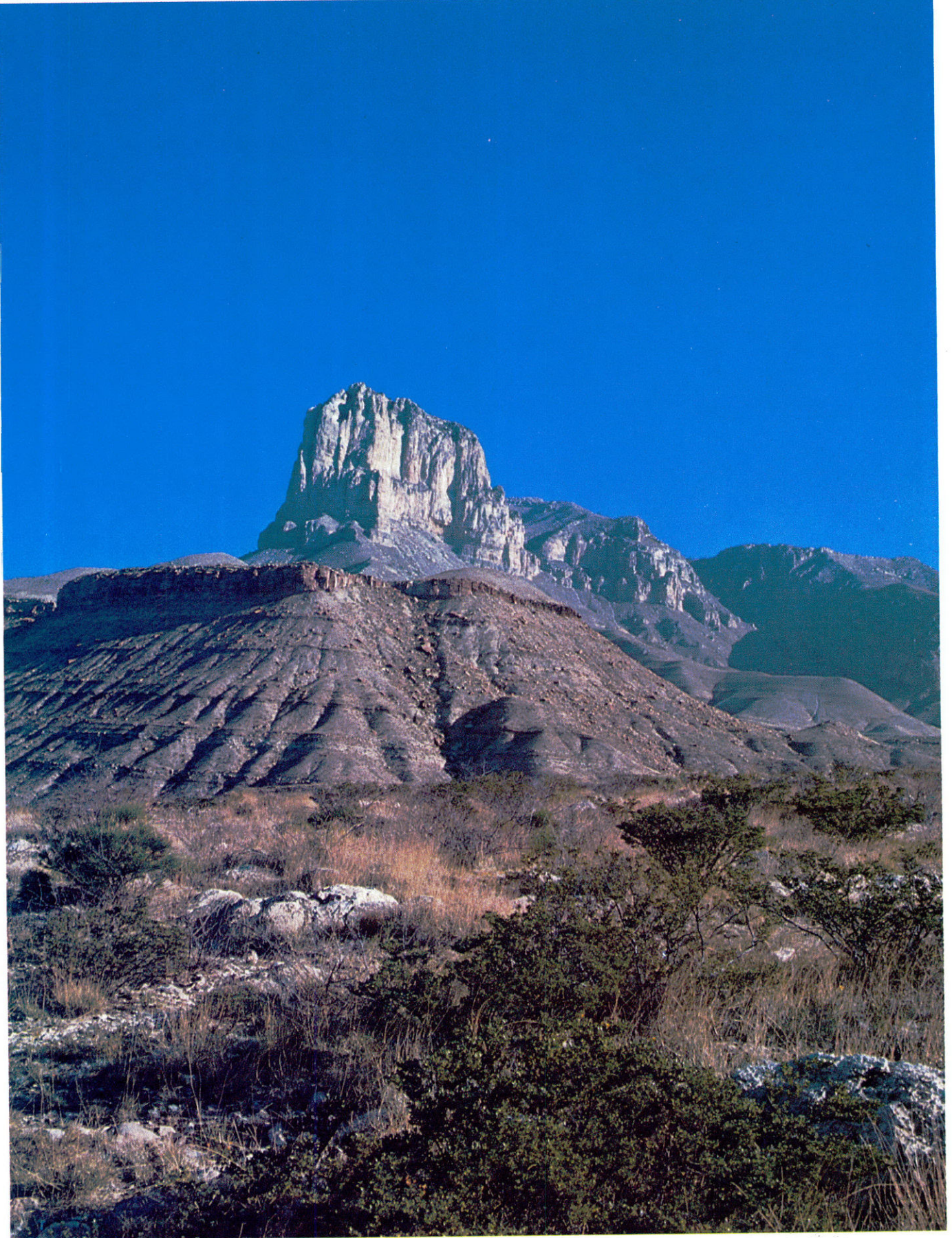
These depressions in the rock forma-

tion vary in size from a few inches to over 20 feet in diameter and some of the larger ones have depths greater than 10 feet. Rainwater collecting in these *huecos* during the infrequent rains made the area a natural watering place and rest stop for Apaches, Kiowas, Comanches, pioneers and stagecoach travelers. It was the only water for miles around.

Indians who camped in the area left their pictographs behind to tell of their adventures. In about 25 locations these pictographs have survived the weathering of wind and water and the vandalism of visitors. Older more symbolic pictographs are probably the work of a prehistoric Puebloan Indian group that lived in the area at least 800 years ago, but the paintings that depict action and include representations of white men are attributed to the Indians of our history.

Scenic attractions of the park include a 400-foot sheer cliff, a natural bridge, two small lakes and many hidden valleys. Excellent views of the mountains and desert that surround the park can be seen from atop the highest points in the park.

These are just a few of the attractions the Trans-Pecos has to offer through state and federal lands. Those who take the time to not only visit these areas but also tour the rest of the Trans-Pecos will find that it is truly a beautiful land of contrast. **





Cold-weather Casting

Bay fishing can prove productive even under winter's adverse conditions.

by Al Pancoast Jr.

Along the coast, swimmers, surfers and sunbathers have been replaced with a hardy group of bay fishermen who know that winter provides some great fishing opportunities.

When a period of mild Texas winter is interrupted by a freezing norther severe enough to drop the water temperatures in the bays to the near freezing mark, the fish move into deepwater basins such as housing development channels, the Rockport turning basin, Conn Brown Harbor, Sea Gun Motel's channel, Offatt's Bayou in Galveston and the Army Hole near Port O'Connor.

The ideal time to fish these basins is just as the norther has passed through or about the second day after the front has hit. It takes a day or two, depending on the velocity of the norther, for the fish to start feeding before returning to open bays.

Under these conditions, natural bait produces the best results. If live shrimp can be obtained, it is the choice bait, but cut bait also is effective. The fish will be found in these deepwater holes right on the bottom, so a tight line with about a 4/0 hook (hook size depends on the size of bait) should be used. Also a half-ounce slip weight sinker is recommended. Since the fish take



the bait slowly, they will sometime drop it upon feeling the drag of any weight, thus, the advantage of the slip sinker.

Normally, there is very little current in these basins or channels, so lightweight terminal tackle will usually be satisfactory. Do not let a crowded fishing area discourage you as far as fishing results are concerned. Some basins are literally lined elbow to elbow with anglers, everyone sharing full stringers and often good fellowship.

For the purist angler who will use only artificial lures, any lightweight lead head jig, probably in yellow or white colors, will assure him some activity and probably some better quality fish.

A silver spoon with a yellow or white bucktail is a good combination. Another type of good lure for this fishing is a small saltwater swimming lure such as a small Bingo, Hump M-5 or Cisco. Trial and error will prove which color lure works best each day. These lures when jigged or bumped slowly along the bottom have produced their share of fish.

The key to this winter fishing with both natural and artificial baits is to fish the bait slowly. The fish are sluggish and just won't hit a fast-moving bait.

These slow fishing antics will often cause you to lose some tackle in snagging of obstacles, however, a tussle with an old rubber boot or piece of plastic can give your tackle a real test.

If an angler has a boat, not only will he have an advantage over the bank fisherman in the deepwater channels during the cold spells, but he also can find some good winter fishing in the bays after the weather warms up.

The cold weather months add, as well as subtract, to the availability of various species of fish. The severity of the winter greatly influences the number of fish available. Some trout remain in the bays throughout the winter as do some subadult redfish. The bays are also usually abundant with butterfly drum and the very desirable golden croaker which can reach two to three pounds in weight.

The greatest disadvantage to winter fishing is the low tides. Most of the shallow water reefs lay exposed, so the sloughs and channels will have to be fished. Best results are usually obtained by fishing the area of the slough which leads into the bay from the shoreline at the deepest point.

The game fish lie in this deeper water where the



temperature is more comfortable and wait for bait fish to move in and out of the pass.

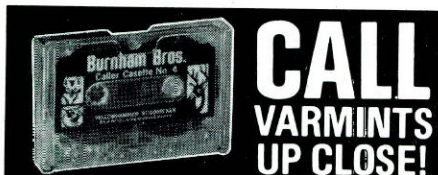
If your boat is not equipped with a depth gauge, you can ease your anchor over the side for a depth reading on the rope; however, in most cases the water color darkens as the depths increase.

Some good stringers of fish are caught wading close to the same waters you fished in the summer months. It is just a matter of fishing slower and a little farther out from the shorelines. Again, as for the boat fisherman, the best fishing will be at the mouths of the sloughs.

In most cases the vegetation close to the shoreline has declined or the ducks have eliminated it, so the

natural feeding places are the sloughs and reefs when accessible. The gold and silver spoons work best.

There is one handicap to winter wade fishing, besides discovering you missed a hole in your waders the last time you patched them and having one leg weighing about 30 pounds more than the other one, and that is the conflict with the duck hunters. Be a sport and observe the duck blinds in the area where you are fishing. If a blind has fresh foliage and a spread of decoys bobbing near by, you can be sure that it is occupied by a very patient hunter who probably hasn't fired a shot all day. Stay away from these other winter sportsmen and enjoy midwinter bay fishing. **



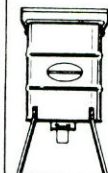
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LONG SHOTS SHORT CASTS

compiled by Neal Cook

Boating Accidents: A nationwide survey by the U.S. Coast Guard showed slightly more than one-third of all boaters have less than 100 hours boating experience. Another survey in Iowa showed that this group of inexperienced boaters was involved in about one-third of the accidents — only their proportionate share. This means that any boater (including you, if you are a boater) can cause or be involved in an accident regardless of how much experience he has in boat operation.

More Statistics: From January to September of this year 588 people have drowned in Texas from various causes. Of these, 362 people were within 25 miles of their homes and 502 were male and 86 were female. People drowned under almost every water-oriented situation, so this means that anytime you or your family are around water, BE CAREFUL.

Feed The Birds: As winter sets in, many of our birds are having a rough time finding enough food and would appreciate a helping hand in the form of seeds and suet. There are many good books available in bookstores and libraries which show how to build feeders and what to put in them. Keeping a ready supply of food around your yard will insure that appreciative birds will be brightening your winter, and you will be helping them through the year.

Shocking Situation: Mankind is proud of its achievements in using electricity and electrical equipment, but we should all realize that 500 or so species of fish use this form of energy. Some fish possess only electrical sensors, while others also possess organs capable of generating electric currents. The electric eel, *Electrophorus electricus*, found in some South American rivers can send 500 volts through the water to immobilize its prey. That fish use electricity should not surprise you when you consider that humans also produce electric currents (though weak when compared to fish) which modern medicine uses for tests. The heart's current — about 0.001 to 0.002 volts — can be detected by the sensitive electrocardiogram and be used to warn of impending danger.

Get It Up and Moving: During the hunting season some birds and animals will be shot and not retrieved simply because the hunters are too lazy to spend the time looking for the animal. This is extremely poor sportsmanship and is now illegal. If a warden sees it fall and you don't attempt to retrieve it, you will be violating a new law that requires that "a reasonable effort be made to retrieve all wounded game animals or game birds." The law also makes it a penalty to let the game spoil. Big game animals can often travel fairly long distances even after they have been fatally wounded, and it is the hunter's responsibility to track the animal and find it. On hands and knees if necessary, follow tracks or drops of blood until you find the game. Don't be a slob hunter and you will be surprised how well you will feel knowing that you have gone to the extra effort of being a good sport, and how good you will feel when you don't receive a citation from a game warden.



Bill Reaves

CAACKLERS ALONG THE RIO GRANDE

by Wayne R. Marion, Texas A&M University

“**Cha-cha-lac! Cha-cha-lac!**” echoes through the dense, thorny thicket as early morning choruses begin, fade out and then spread to neighboring areas. What is causing this unbelievable clamor? This seemingly endless, repetitive call is that of the plain chachalaca, *Ortalis vetula*, a chicken-sized bird which is more commonly heard than seen.

Of all the birds in Texas, chachalacas are certainly one of the loudest and least conspicuous. Both male and female call in all months of the year, but the majority of the calling comes from pairs during the spring breeding season. Loud calling seems to be closely associated with the formation and maintenance of pair bonds during the breeding season.

Although these birds become remarkably tame when regularly fed by humans, most chachalacas are extremely wild and secretive. Their secretive habits, extremely dense habitat and limited distribution in Texas combine to make this bird perhaps the least known of all game birds in Texas.

Chachalacas are the smallest members of a family of birds found primarily in northern portions of South America, most of Central America and Mexico. In Texas, chachalacas are restricted to remnants of dense brushland in the highly agricultural Rio Grande Delta region. This dense brushland habitat includes many trees growing on wetter, lowland sites — anacua, cedar

elm, granjeno, guayacan, huisache, sugar hackberry and many other typically Mexican plants.

Suitable habitat was reduced by over 75 percent in Cameron, Hidalgo and Willacy Counties from 1939 to 1971 due to expansion in agricultural and residential developments. As of 1971, only about 22,200 acres of chachalaca habitat remained in these three counties. Chachalacas are very dependent upon the remaining native vegetation in the Lower Rio Grande Valley for nesting sites, food and cover.

Typically, three eggs are laid in shallow nests of twigs or Spanish moss in trees of the junglelike thickets. After 25 days of incubation, the downy young hatch, leap several feet to the ground and begin following both parents through the dense undergrowth. The birds feed primarily on succulent native fruits and berries and roost together in trees at night.

Although the birds are fond of succulent fruits, chachalacas sometimes venture into farmers' fields, but apparently cause very little damage to crops. During winter months when natural foods become scarce, small flocks of birds are frequently seen soliciting handouts of everything from potato chips to popcorn from delighted human onlookers. Ideal places to see these unique birds are Bentsen-Rio Grande State Park and Santa Ana National Wildlife Refuge, two of the larger remaining tracts of suitable habitat in the Lower





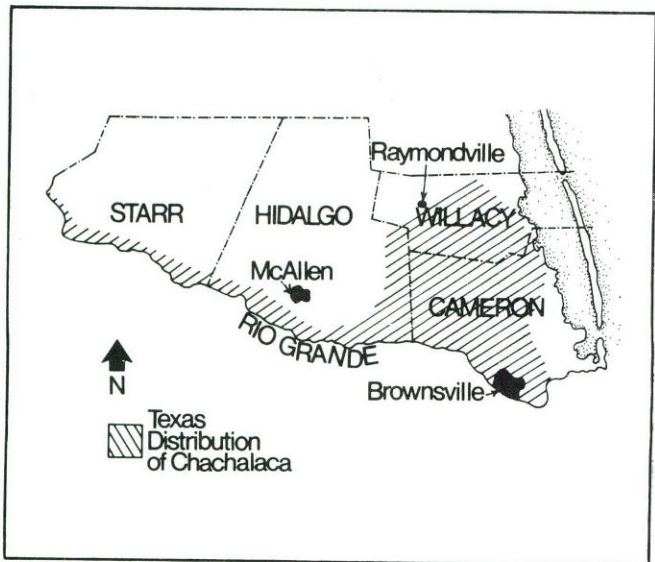
Rio Grande Valley. Chachalacas often form flocks near food supplies in the winter and it is easy to see dozens of these semitame birds near artificial food sources.

With the exception of areas of extensive wintertime feeding, most chachalacas remain wild and secluded during the entire year. The six-week hunting season (in December and January) presents a challenge from this game bird that few hunters are willing to accept. It takes real skill and tough skin to stalk these inconspicuous and elusive birds in their habitat of tangled

vines, thorns and briars. Those hunters fortunate enough to bag a bird can look forward to a tasty meal.

Counts of calls during the spring breeding season have been used to estimate populations of many game birds, including quail, doves and pheasants. Likewise, the loud calling of pairs of chachalacas during the spring of 1972 was used to obtain a population estimate for Texas. Following a thorough survey of areas inhabited by these birds, the population was estimated to be 18,000 to 21,000 birds. It is difficult to place this population size in perspective since earlier estimates are lacking, but many of the remaining areas do seem to have adequate populations of about one bird per acre.

Transplanting of birds to uninhabited areas within the natural range has been done with some success by the Texas Parks and Wildlife Department. These efforts depend on preservation of suitable habitat in the Lower Rio Grande Valley. The Texas Parks and Wildlife Department, U.S. Fish and Wildlife Service and the World Wildlife Fund are currently striving to preserve habitat, but their efforts may not be adequate. Our first priority must be to support agencies and organizations in their attempts to preserve and enhance native habitat for the many unique wildlife species of the Lower Rio Grande Valley. **



Author's Note: Financial assistance for study provided by Caesar Kleberg Research Program in Wildlife Ecology.

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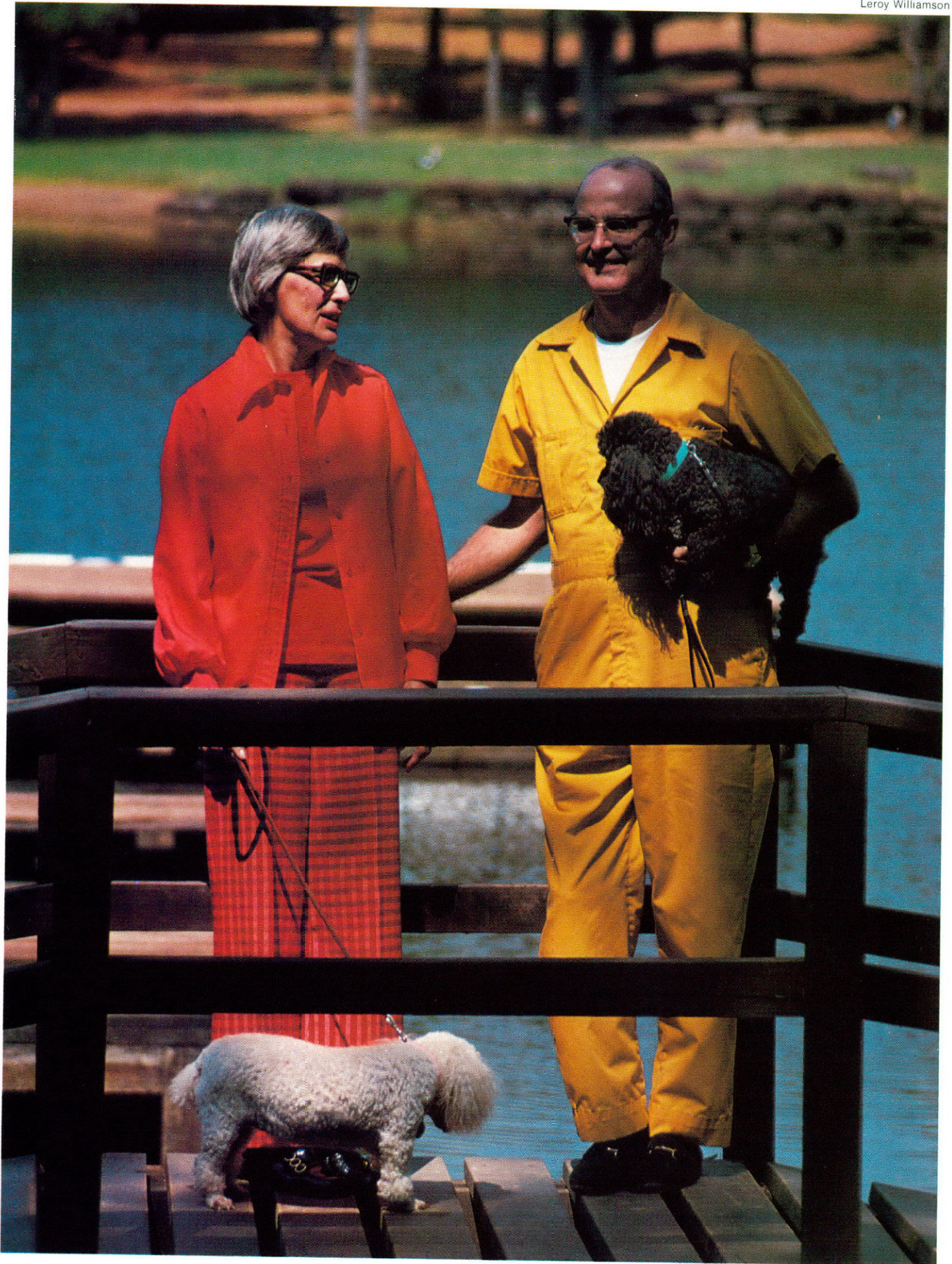
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All of the Parks

That became the goal of this Fort Worth couple.

by Ilo Hiller

Little did Frank and Hope Paschal know, when they started visiting nearby state parks on the weekends, that they were embarking upon a project which would take five years to complete. This project was to visit every open, accessible, developed state park in Texas.

When the Paschals purchased their motor home five years ago and discovered the pleasures of camping in state parks, they had no plans to see them all. However, as time passed and they began to think about how many different parks they had camped in as they traveled around the state, they decided it would be a challenge to see just how many they could visit.

They found that, unlike quick-food chain stores, Texas state parks are not all alike — variety is the key. There's a park located in every ecological region of the state and, by visiting them all, the Paschals have enjoyed the mysterious beauty of cypress-studded Caddo, the isolated pine forests of Bastrop, the unique flora of Palmetto, the birdlife of Bentsen-Rio Grande, the grandeur of the Davis Mountains, the windswept dunes of Monahans Sandhills, the pictographs of Hueco Tanks and the awesome canyons of Palo Duro.

Usage of the state parks has not been limited to the summer season, but is a year-round activity for this family. In fact, they prefer fall and winter camping because the parks are less crowded. The cooler weather also suits their favorite activity, which is hiking. A brisk walk in the nippy morning air whets the appetite for a good camp breakfast, and the food always seems to taste better out camping than it does at home.

When spring visits the state parks, so do the Paschals. New plant life and mild weather join together to

make nature trails especially enjoyable for them at this time of the year.

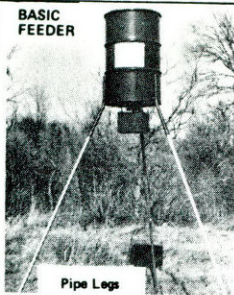
Through the last five years of state park camping, Frank and Hope have not only seen new parks added to the system, but also have watched existing park facilities improve and expand to meet the growing needs of the camping public. However, they both agree that one thing has remained the same — the friendly, helpful, courteous attitude of the park employees.

When asked what suggestions they had for others who wanted to see all of the Texas state parks, the Paschals suggested that the seasons be considered when deciding where to go. For instance, a visit to the parks in East Texas is always nice, but autumn's changing leaves add extra beauty; combining a visit to Tyler State Park with the Tyler Rose Festival might also be considered; and, although Palo Duro can be enjoyed year around, visiting there during the summer will enable you to see the production "Texas."

One of their other suggestions is to avoid holiday weekends. Extra pressure is felt by the parks at these times and the year-round camper can always find another activity to enjoy at home on these extra-crowded, holiday weekends.

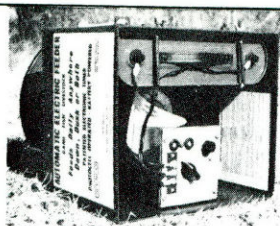
In recognition of their visits to all 85 state parks open to the public, Pearce Johnson, chairman of the Texas Parks and Wildlife Commission, in August presented Mr. and Mrs. Frank L. Paschal Jr. of Fort Worth with an annual park entrance permit. Chairman Johnson purchased the permit for the Paschals.

Visiting all the state parks may never be your goal, but before you plan your vacation next year, stop to think about all the different kinds of scenic beauty our state has to offer. See Texas first, and include some of the state parks on your agenda. **

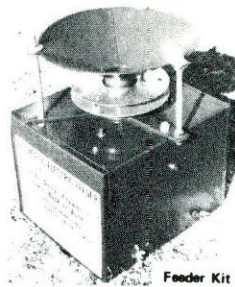


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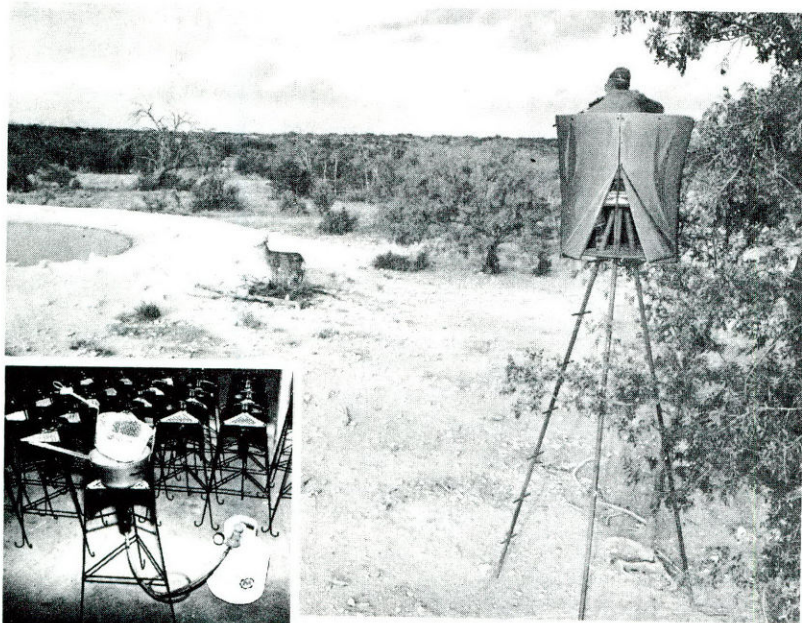
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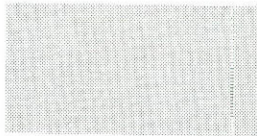
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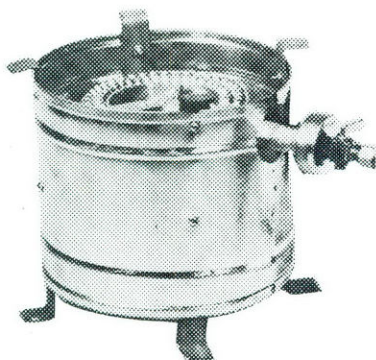
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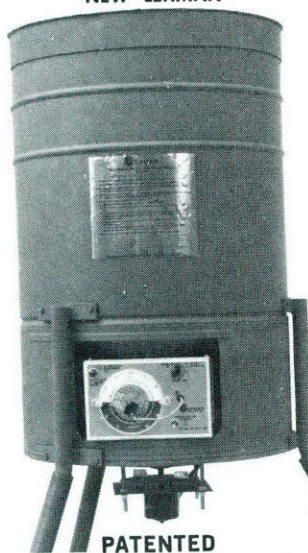
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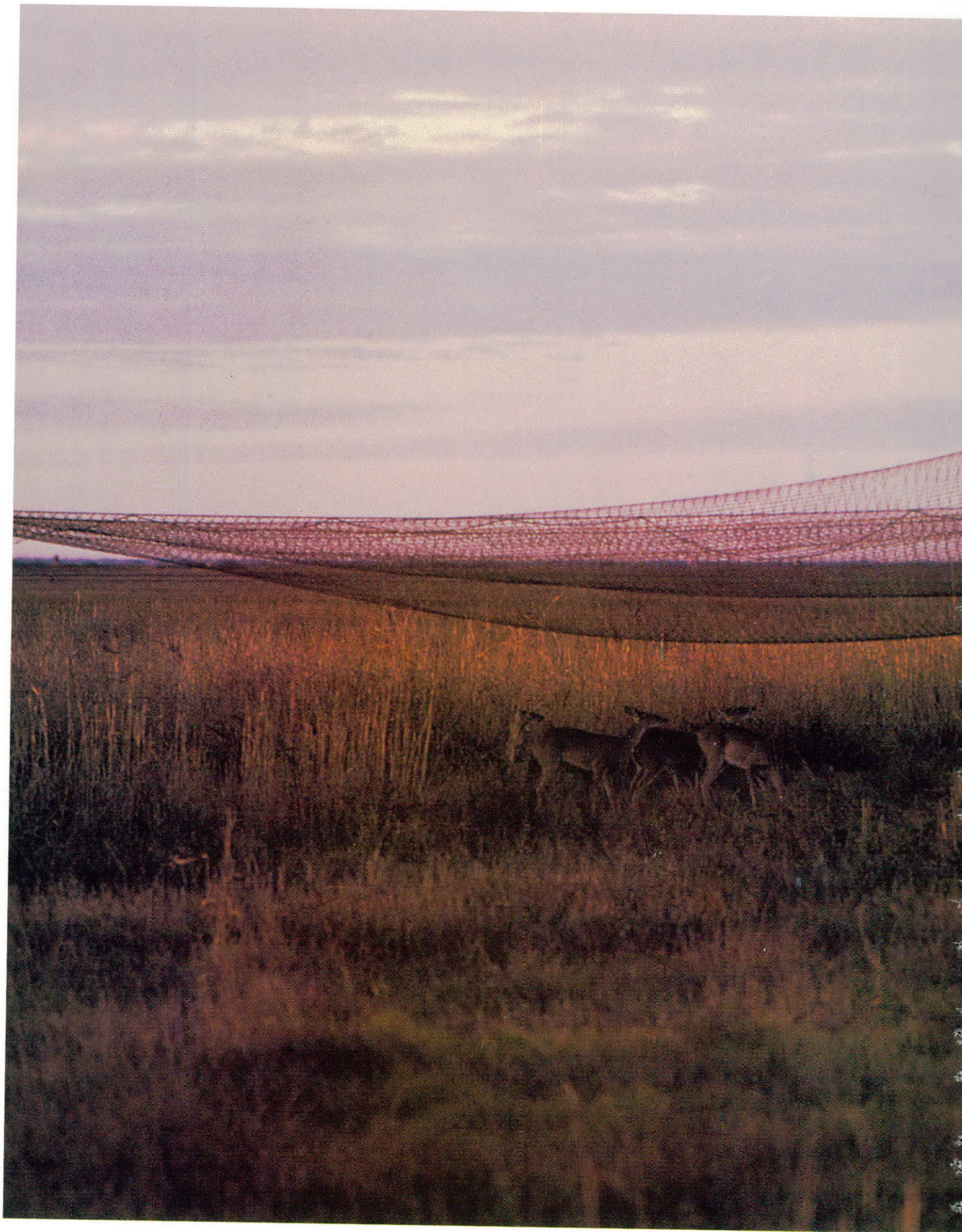
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DROP Net

by Greg Butts,
Wildlife Biologist, Kerr Wildlife Management Area

One of the most valuable and efficient techniques used for capturing big game in Texas is the drop net. This technique allows biologists to catch one or more wild animals with a minimum of danger and injury to the animal. White-tailed deer, turkey and exotic big game are among those species commonly trapped in this manner.

Department biologists on the Kerr Wildlife Management Area developed the deer drop net in 1966, and since then, over 1,000 whitetails have been captured by this method for restocking purposes.

The turkey drop net, perfected several years prior to the development of the deer drop net, has enabled biologists to trap between 7,000 and 8,000 turkey for banding and restocking programs. Deer and turkey can also be tagged, or marked, prior to their release to provide vital management information.

A successful netting operation requires a substantial amount of time and effort.

Prebaiting the trapsite on a regular schedule for a short period of time is important. This familiarizes the animals with the baiting activity and they soon associate the arrival of a vehicle with easily obtainable food. As a rule turkey are generally wary about walking under the net to feed, but they eventually become accustomed to it. Attracting wild game to these sites is best accomplished when natural food conditions are poor.

The trapsite should be a level area free of obstructions, to prevent injury to the animals after the net is dropped. Once the selected site is cleared, the drop net is spread out and placed in the desired position on the ground. It is then suspended by five poles, one at each corner and one in the middle. The four corner poles are equipped with hand winches which are used to raise and lower the net. The long center pole acts as a support for the center portion of the net.

The drop net is attached to the poles by five short pieces of ski rope in which dynamite blasting caps have been inserted. The blasting caps are all connected to an extension cord which leads to a nearby place of concealment or blind. When the observer touches the extension cord ends to a battery, the blasting caps detonate simultaneously, severing the ski ropes. The



Once the deer have been trapped by the net, a crew moves in to untangle them. Struggling, but uninjured, they are then loaded into crates or enclosed trucks and taken to the release site. When the doors of the truck are opened, the deer quickly leap to their freedom.

net then falls and captures the animals beneath it.

A deer drop net is large, measuring 70 feet by 70 feet and weighing approximately 200 pounds. Construction is of number 60 nylon cord with four-inch-square mesh. Turkey are trapped in the same manner as white-tailed deer with one exception — a slightly different net is used. A turkey drop net has three-inch-square mesh made of number 48 cotton cord and measures 60 feet by 60 feet.

On the day of the intended drop, the person who is to fire the net conceals himself in the blind while other crew members bait liberally under the net. Corn is generally used, but other baits such as cattle cubes, maize, apples and alfalfa hay will also attract wild game. After baiting, the net is checked once more to make sure it will function properly. If everything checks out, the capture crew departs to wait out of sight, but within hearing distance.

Now the long process of waiting and watching begins. The biologist waiting patiently in the blind begins to wonder how long it will be before something shows and if it will be the intended prey. When trapping in areas where exotic game is found, such as the Hill Country, one may find a herd of axis deer feeding under the net when whitetails are the objective. This generally means crew members must rebait the net after the unwanted animals have gone.

Let's assume that the biologists want to capture as many white-tailed deer as possible for a restocking program. The observer in the blind has been diligently waiting for several hours and his only reward has been the occasional visit of a dove or jay to the net. Suddenly a lone doe appears, seemingly from nowhere. With ears erect and nose held high she tests the wind for the slightest detection of danger. She paces back and forth for a few minutes then casually walks under the net as if it represented nothing more than the branches of a



large tree. The doe continually throws her head up and carefully surveys the surrounding area. Each time the observer in the blind wonders if she has caught his scent or heard a leaf rustle as cramped legs were shifted to a new position. He asks himself if there are other deer waiting just out of sight or will the lone doe be the only reward for the hours of patient waiting.

The doe glances behind her, then stares in that direction for what seems an eternity. Three more does appear, followed closely by a nice buck. Now the trapper must decide if he should fire the net or wait in the hopes that more deer will show up. As this question is being pondered, another doe and buck join the deer under the net. This second buck is smaller and he quickly learns to keep his distance as the larger buck makes a half-hearted lunge at him.

As the biologist glances away from the net and prepares to touch the wires to the battery, he suddenly wonders if the deer have sensed something wrong and disappeared. A quick glance assures him they are still there and a loud "bang" resounds as the wires are touched to the battery terminals.

The crew waiting out of sight arrives swiftly with hauling crates. Now the rodeo really begins. Struggling, but uninjured deer are untangled one by one and quickly loaded into crates. Torn jeans, bruises and minor abrasions generally result to the trapping crew from the unangling and loading operation.

When the deer have been safely confined, the net is reset. Hopefully another drop can be made later that day or the next. Not all trapping efforts are as successful as the one described; however, larger catches are commonly made. Over 20 white-tailed deer have been caught in a single drop and as many as 100 turkey captured at one time. Excessively large catches are usually avoided because injuries and some death loss may result if the animals are forced to remain entan-

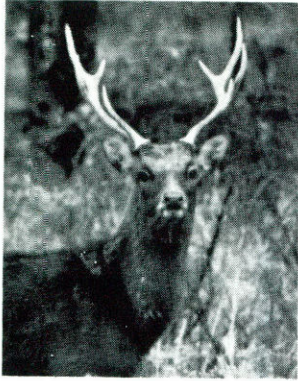
gled in the net for too long a period of time.

The drop net is not the only technique used to capture deer and turkey; however, it has proved to be one of the most successful. Other capture techniques include box traps, cannon and rocket nets and capture (tranquilizer) guns. Box traps are less effective than the drop net because only one animal at a time can be captured and oftentimes deer are hesitant about entering this type trap. Both deer and turkey can be captured successfully with cannon and rocket nets. These nets use exploding devices or propellents to carry the net over the game animals at the bait site.

Both the drop net and cannon or rocket nets have their advantages and disadvantages. However, the drop net is more efficient and is the preferred technique used for capturing deer and turkey in Texas. Capture guns are effective on deer enclosed in a small area but are difficult to use on wild game animals on the open range. The effective range of these guns is short and only one animal can be drugged at a time. It takes several minutes for the animal to succumb to a drugged dart and, if the animal gets out of sight before the drug takes effect, there is a good possibility it will escape.

The drop net trap and other capture techniques described here are only a few of the methods used to capture wild game. For many species of wild animals which the biologists want to catch, either a new trapping technique must be developed or old ones modified to fit the need. New capture methods are continually being tried and tested. The drop net, however, remains as the best and most effective technique for capturing deer and turkey in Texas.

Trapping deer and turkey with the drop net can best be described as hard, rewarding and sometimes exasperating work which involves a lot of know-how and a certain amount of luck. **



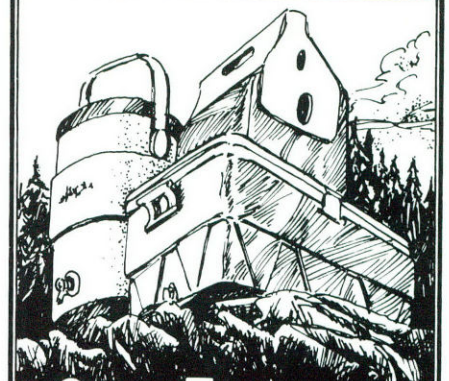
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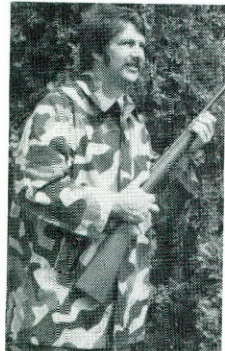


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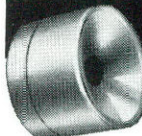
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Additionally, TSRA encourages and sponsors junior training programs, hunter safety programs, home firearms safety, competitive marksmanship, state championships, and selects teams to represent the State of Texas at the annual National Championships. Annual dues are \$4.00, and memberships run from Jan. through the following Dec. 31st each year. We urge you to join your fellow Texans and become a member of this honorable Association. You'll be glad you did!

(Please allow 45 days to process your application.)

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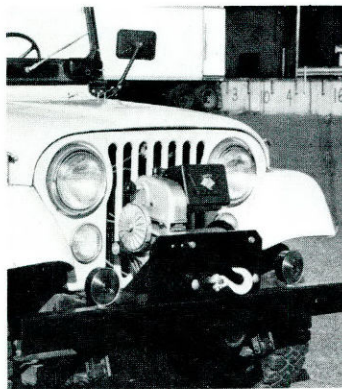


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Young Naturalist

Patterns in Nature

by Ilo Hiller

Are you guilty, in the rush of your daily activities, of giving nature only a quick, casual glance? It's so easy to do but, by not taking a closer look, you are missing out on some very interesting sights.

Nature is full of patterns, geometric shapes and textures which you may never have noticed. Take a look at a few we have selected and see how many you can identify. If you have trouble recognizing some of them, turn to page 32 for the answers.

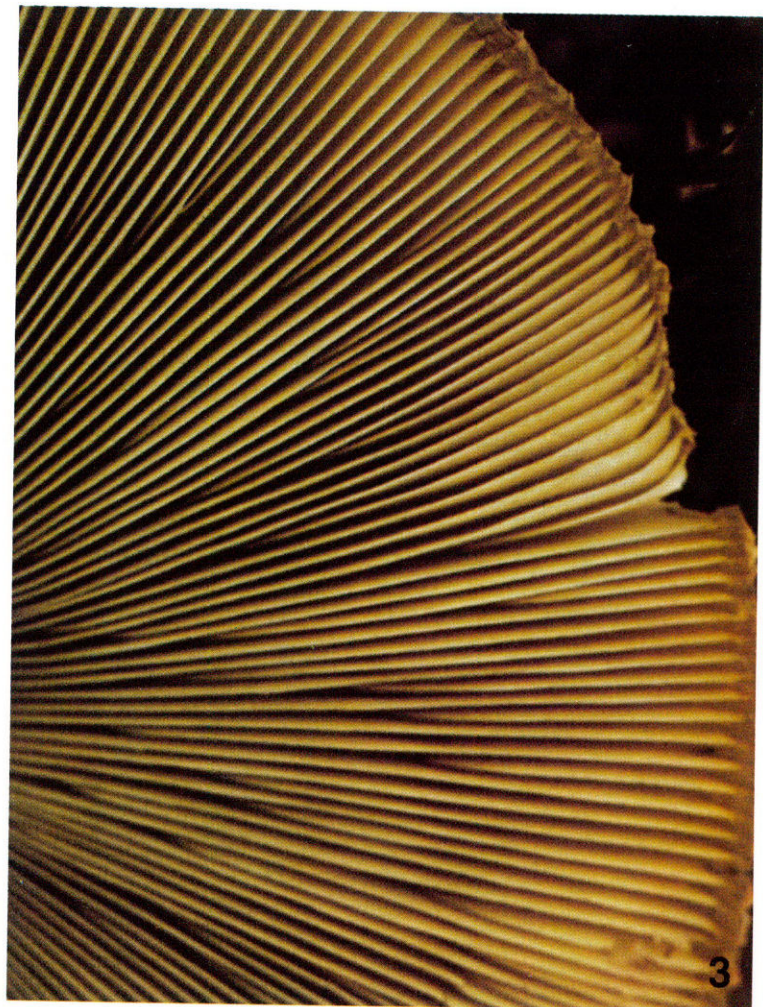


Neal Cook



2

Neal Cook



3

Jim Whitcomb



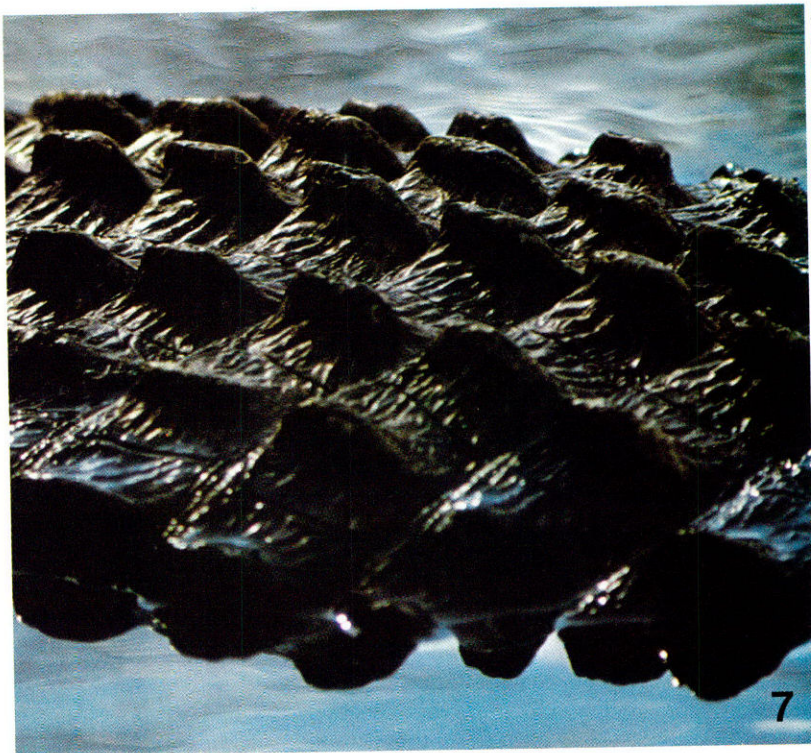
Neal Cook



Neal Cook



Martin T. Fulfer



LETTERS TO THE EDITOR

Updated Dove Names

The photography for Ilo Hiller's article on "Pigeons and Doves" in the September issue was exceptional and the information concerning the columbids was essentially correct. But, how in the world did the author use the outdated scientific names for the rock dove and white-winged dove? *Lithoenas domestica* and *Melopelia* have not been used for about 50 years. The 32nd Supplement to the AOU check-list (1957, Fifth Ed.) in April 1973 also changed the genera for the mourning dove and ground dove to *Zenaida* and *Columbina*, respectively.

Although most of your readers will never have use for the Latin names, those that do should be provided with accurate and up-to-date information.

Roy E. Tomlinson
Albuquerque, New Mexico

■ Research material for the pigeons and doves article was taken from several sources, but the outdated Latin names for the white-winged dove and the rock dove were inadvertently taken from

Harry C. Oberholser's "The Bird Life of Texas." Oberholser's book also lists the updated scientific names as they appear on the AOU check-list, 1957. The correct scientific names for these doves are: mourning dove, *Zenaida macroura*; white-winged dove, *Zenaida asiatica*; rock dove, *Columba livia*; and ground dove, *Columbina passerina*.

Senior Citizen Pass

It is my understanding that senior citizens are admitted to national parks without charge. Do state parks also offer a free admission to senior citizens?

Mrs. W. R. Sievers
Austin

■ Anyone 65 years of age or older may obtain a Parklands Passport which will waive the entrance fee not only for the passport holder, but also for any other occupants of his vehicle. If the senior citizen does not request a passport or show one already obtained, the regular park entrance fee will be charged. This special passport does not exempt the holder from paying facility use fees such as those charged for campsites or screened shelters.

Crossbows Illegal

Since I am right-handed, the loss of my right eye handicaps me for shooting a regular long bow. I have tried to shoot one left-handed, but without success. Under these conditions, would it be possible for me to use a crossbow for hunting?

Richard Mittelstaedt
Houston

■ Unfortunately, the law is specific. It is illegal to hunt any game bird or animal with a crossbow at any time in counties under the regulatory authority of this department or during archery-only seasons in other counties.

Railroad Park

Our local newspaper carried an item about the construction of the state's longest and narrowest state park — a railroad park between Rusk and Palestine. The item further stated that refurbished steam engines will chug along the 24.5 miles of park track through the East Texas pine forests and provide a glimpse of railroading's golden age at the turn of the century.

When will this railroad park be opened and how can I obtain ticket information?

John Noster
Mesquite

■ It is anticipated that this unique park will be open for full service by the summer of 1976. Scheduling of trips has not been finalized nor have ticket prices been determined at this time. Specific information will be available a couple of months prior to the opening date.

Answers to Young Naturalist

1. Cracks formed in drying mud.
2. Yellow jacket nest showing different stages of egg development.
3. Gills on underside of mushroom in which spores are developed.
4. Watermelon seeds.
5. Alligator juniper tree bark.
6. Undershell of box turtle.
7. Back of alligator floating in water.

INSIDE BACK COVER

Since 1957, department biologists on the Black Gap Wildlife Management Area have been working with desert bighorn sheep obtained from Arizona. Their efforts are geared toward increasing the population of the herd to the point where bighorns can be released into the wild. At one time the native bighorn was abundant throughout West Texas. Photo by Reagan Bradshaw.

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