

# Texas Game and Fish

DECEMBER 1951 TEN CENTS

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"When there's work to be done this fall . . ." Adam Wilson, III, and Lt. Allie B. Burtini, Jr., (right) pack him out of the roughs.



# Texas Game and Fish

A MONTHLY MAGAZINE DEVOTED TO THE PROTECTION AND CONSERVATION OF OUR NATIVE GAME AND FISH; AND TO THE IMPROVEMENT OF HUNTING AND FISHING IN TEXAS.

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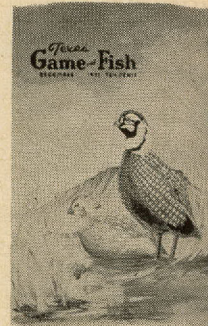
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### The Cover

The Mearns's quail, found in the Davis Mountains and part of the Big Bend, is a small and oddly marked bird. The female somewhat resembles the female bobwhite. The head and underparts of the male Mearns's quail surpass all other game birds in beauty and in shades of bold color combinations. This quail is also known as the fool's quail because it makes no attempt to protect itself. Few hunters have had the opportunity to kill Mearns's quail even when they were at maximum distribution because of the extremely retiring nature of the bird and its inaccessible habitat. These quail will no doubt remain of little concern to the sportsman unless it can be restored to lost range through better land use. It is prolific and with favorable habitat it should increase and extend its range.







# Conducted

**S**EPARATION of fact and fancy is frequently a difficult job. There doubtless are cases where such separation is purposely avoided; cold facts offer little attraction to people who enjoy flights of imagination. Some discussions of antelope hunting seem to represent such a situation.

A fair evaluation of the pronghorn in the game picture requires at least



By W. C. GLAZENER

Outdoor writer L. A. Wilke of Austin, draws the first lucky name in the 1951 drawing conducted at Game and Fish headquarters. Chief Clerk V. E. Skaggs watches. Hunters check in at Alpine, (left) at the processing headquarters in the Holland hotel. Standing left to right are Frank McGee, Albert Dean, Bob Boothe and Elvin Dean, all of San Antonio. At table left to right are: Game Warden C. H. "Swede" Johnson of Meridian; Bob Willoughby, member of the O-6 ranch staff, and Game Warden Supervisor Ray Williams of Alpine. Judge Joe Cherry of Edna, Texas, waits on a rocky slope for a target to show over the next ridge. One did. He got his buck at 10 a.m. the opening day, October 1.



a general knowledge of certain specific details. Some of these are historical in nature, while some have current economic relations other than to the price of gasoline, ammunition or T-bone steaks. A hurried, half-glimpse at the background too often breeds wrong opinions and misunderstanding. Therefore, let us take our time and try to see the overall scene.

What is now designated on the maps as "West Texas" was formerly the range of almost countless bison (buffalo to you, perhaps), antelope, prairie dogs and horned larks. As late as about 1840, antelope were distributed quite generally and in great numbers over the Upper and Lower Plains and southward to Corpus Christi and Laredo. They ranged eastward almost as far as Dallas; westward, they spilled across the Rio Grande.

In the three score and ten years following, changes occurred. Settlements and barbed wire fences, repeating rifles and store-bought cartridges, automobiles and oil wells—all these and many more startling developments became common. All the while, antelope were getting fewer and fewer. Even a closed season enacted by the Texas Legislature (and continued for 41 years) did not check the decline.



# Antelope Hunts . . . Why?

For possibly 20 or 30 years, antelope meat was an important item on West Texas tables. Part of that time, antelope steaks were even an item of some rank in commercial trade channels. Market hunters shipped them "back East" by the carloads. By 1880, the decline was evident in some localities; by 1910, it was apparent throughout the entire range in Texas.

*Director, Wildlife Restoration*

In fact, the species had disappeared from most ranches—a casualty to constant and increasing pressures and disturbances.

At some time, apparently between 1910 and 1925, a few ranchers in the Trans-Pecos Region decided to protect and cherish the remnant antelope herds on their lands. Just when, where, or why this move began, no one seems able to say. Neither do we know whether the move was by agreement on the part of several men, or just coincidental individual decisions. Whatever the reason, results were surprising. Herds stopped shrinking, held their own for a while, then began building up again. A combination of protection against hunting, control of predators and even relief from playful chasing by horsemen and automobiles seems to have accounted for the reversal.

From 1920 to 1940, Trans-Pecos antelope herds generally grew larger and larger. In the meantime, herds elsewhere in Texas continued to fade. Only one small remnant remained in Jim Hogg County. There were scarcely any left on the Lower Plains, and relatively few on the High Plains of the Texas Panhandle. In the Trans-Pecos, herd reduction was common only on ranches where sheep replaced cattle. The combination of netwire

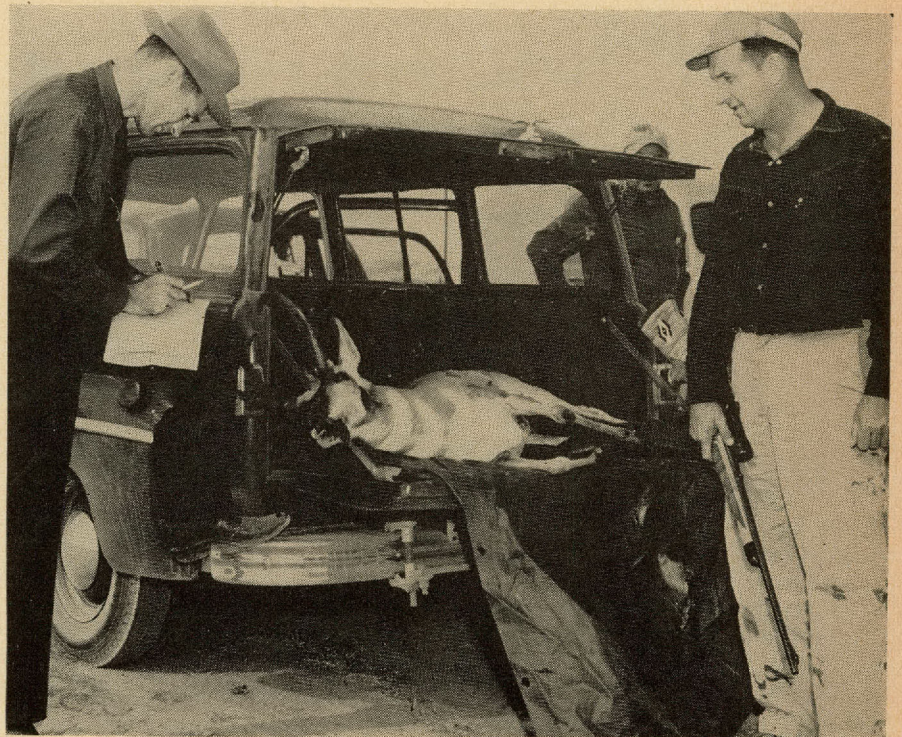
fences and intensive food competition with sheep were more than antelope could survive for long.

In 1939, the Game, Fish and Oyster Commission initiated antelope trapping and transplanting. Purposes of the program were to reduce overly large herds, or to save some being reduced by sheep, and to introduce new brood stocks on apparently favorable areas in other localities. Wartime complications interrupted this program from 1943 to 1946, but it was re-activated in 1947 and continued for three additional years. In the course of this program, 3,237 antelope were transplanted, most of them being moved to areas outside the Trans-Pecos.

Transplanting results, an important phase alone, have been somewhat disappointing. Of more consequence,

however, it became evident that herd reduction on good antelope range in the Trans-Pecos was not a single-year operation. Quite to the contrary, a herd refused to stay reduced. Furthermore, 100% removal through trapping, involving the expensive handling of surplus bucks, was definitely not an economical practice. It appeared even more questionable when the low success ratio of transplanting was taken into consideration, particularly the transplanting done outside the Trans-Pecos.

By 1943, the influence of factual data on Trans-Pecos antelope increases brought about another step; for the State of Texas it was a quite radical innovation. In that year, the Texas Legislature gave to the Game, Fish and Oyster Commission some regulatory authority in the Trans-

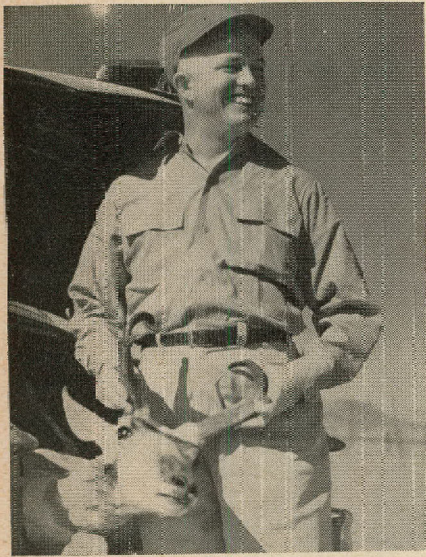


Game Warden Charles Edmondson of Cuero checks in a prong horn shot by James Alowich, Commerce.





The Commission's mobile radio transmitter takes position in the field to relay messages from wardens' cars following the hunt. That's Warden Raymond Miller of Lufkin, standing. Ted Read, left, of Austin, one of the hunters scoring early on the opening day, smiles while checking in his prize.



Pecos. This included a provision for an open season on antelope (buck antelope, that is) to such an extent as population studies might indicate desirable.

The measure also stipulated that hunting should be on a permit basis only, the permits to be assigned fairly and impartially. In effect, the Legislative Act prescribed a "controlled," "regulated," or "conducted" hunt. Why? In the first place, the idea was to make antelope available to the legal hunters of Texas. Secondly, the "contro." was to guard against overshooting of individual herds, but at the same time to encourage an adequate harvest of legal bucks on ranches where owners were willing to allow hunting. Further comments on

these points are in later paragraphs.

To ranchers, this was a slightly doubtful venture, to say the least. Mental pictures of careless and trigger happy hunters zipping high velocity rifle slugs among prized beef cattle and sheep, and the probable shooting of other hunters, were not conducive to ready acceptance of the antelope hunting program. There was also consideration of the time and manpower waste concerned with the rescue of city residents getting lost in 50,000-acre pastures, or in some even larger. Now, if a fellow could just take in a few trusted friends; it might be all right, they reasoned.

The outcome of landowner-game department negotiations was something of a compromise. After a thorough census of antelope on a ranch, to determine the number of animals there, a written agreement was executed. In this was designated the number of permits for the ranch in question, under normal conditions never more than 75% of the adult bucks present. The landowner was allowed to assign 20% of the permits to hunters of his choice. The remaining 80% were to be assigned through

a game department central pool in Austin.

It is in order at this point to make some contrasts between the hunting of antelope and of other big game species. Antelope range on open grassland. It is relatively easy to locate them and to determine how many there are. It is never possible to see the entire deer, elk, or moose population on any given area. Distinction between bucks and does is easy and certain. Consequently, herd control through regulated hunting is a dependable management tool. On the other hand, unregulated hunting, as was earlier observed, can more readily wipe out an antelope herd than a herd of deer. A too heavy harvest of bucks would lead quickly to herd decimation, yet it can be quite easily avoided since the number present can be determined at any time. This is not true with deer, either; it too often is a question of seeing *any* buck deer.

As a further move to assure antelope hunting for hopeful nimrods, the Commission agreed to have wardens check the permits of hunters entering each ranch. Wardens also were to advise hunters relative to legal activities and give hunting suggestions to inexperienced ones. This was all directed towards a successful hunt; the removal of surplus bucks, the satisfaction of participating hunters and the safeguarding of property and lives.

No human undertaking on this earth seems to have escaped all human criticism. The Texas antelope hunt is no exception. However, there are numerous indications that it is set up on a sound pattern and is moving in the right direction. A number of slight revisions, made in recognition of valid reasons, have helped maintain this status.

Each year, there have been more applicants than could be accommodated. The seasonal harvest has varied from 297 for the first season (1944), to 629, with a mean success ratio of about 92%. In seven seasons, a total of 3,073 bucks were harvested. Many hunters are eager to make the hunt year after year, but a regulation gives priority to applicants who did not hunt the preceding season.

Because of last minute withdrawals



of permit holders, and the unwillingness of some eligible applicants to leave home on short notice, a few eager hunters have been able to participate in several hunts. They were willing to accept an assignment to any ranch right up to the last possible moment. One Midland resident has enjoyed five hunts. A man from Waco has four hunts on his record. A farmer from Lamesa has been another repeater, as was a Houston physician. Rarely does a person show as much persistent interest as have numerous antelope permit applicants through the past six seasons. Their insistent requests might well be used as material for a book on the philosophy of human persuasion.

While the hunts probably have not been entirely to the liking of ranch operators, continued participation by an increasing number of them points to more than just a fair degree of satisfaction with the program. Occasionally a rancher is inclined to request too heavy a kill, contending that he has seen considerably more antelope than the aerial census taker found. In other instances, landowners are reluctant to admit as many hunters as would be required to take 75% of the adult bucks on their land. Misgivings about dead cows and wounded hunters have subsided to a minimum after the completion of seven seasons without any happening of that kind. The only known accident involved an over-eager hunter, whom it is rumored, jumped from a moving automobile in an effort to win a wager that he would be the first to kill a buck in that pasture. He broke a leg and lost the wager, but did not kill an antelope.

Some people may think it never rains in the Trans-Pecos, but most Texas antelope hunters can argue otherwise. The first of the three-day antelope hunts begins on or shortly after October 1 and the last one ends not later than October 15. Almost every year from 1944 to 1951 has brought fall rains to the Trans-Pecos in the course of the hunt period. It is then that troubles come. Either hunters or wardens, and sometimes both, have been cut off from town by flooded draws and creeks. Since most hunters operate from nearby hotels ("nearby" may be up to 50 miles),

they seldom have camping equipment with them. In addition to going cold and hungry, they face the possibility of getting stuck in the mud. The damage to cars and ranch roads has been somewhat expensive in a few instances.

As a management program, the conducted hunts in Texas are not as effective as they might be. The removal of 300 to 600 bucks annually from a population that runs from 6,000 to 7,000 naturally affects the sex ratio. A preponderance of females is becoming evident and a continuation of the present harvest plan will make the situation progressively worse. Currently existing laws do not give the Commission latitude for allowing the harvest of female antelope, an arrangement found desirable elsewhere. Colorado, for instance, issues approximately 1,600 permits for one antelope of either sex, against a population of about 7,000 animals. Wyoming has sought a 30% annual harvest, believing that this would stabilize their antelope population under average conditions and maintain good hunting.

Some hunters begin and end their antelope hunt with one shot. Some even shoot the first buck they see. Not so all of them. One prominent citizen

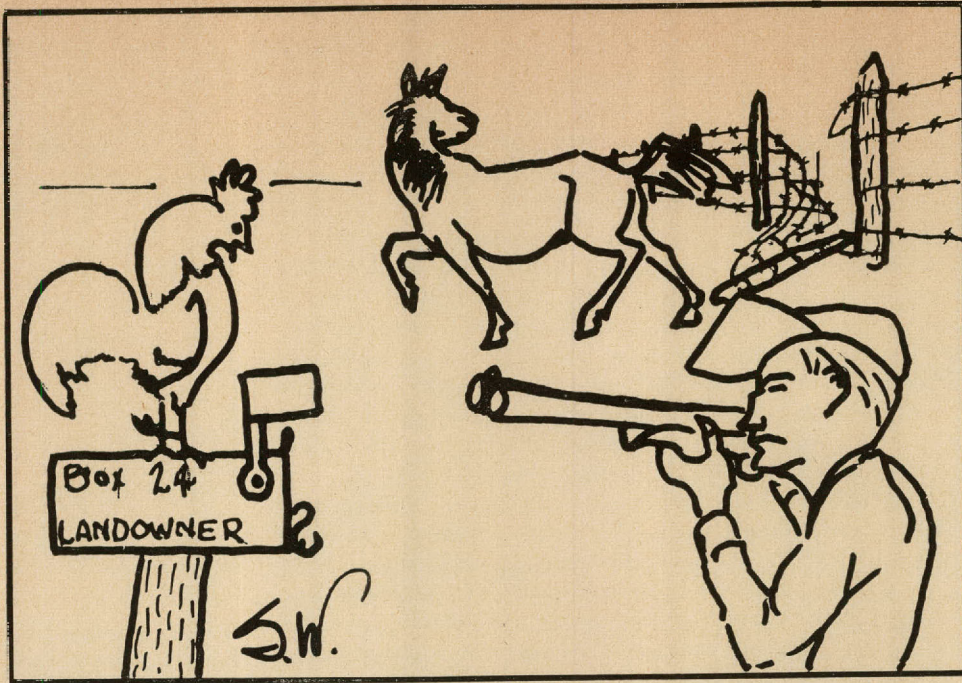
is known to have fired not less than 148 rounds without getting a hit, but he had three days of hunting to remember. For the man who is interested in exercising skill to take a selected animal, antelope hunting can be something else again. After such a buck has been approached or disturbed a few times, wariness and speed make shots increasingly difficult. Ranches vary, too, with regard to the ease with which hunters take a full quota of bucks. Those having more rough land call for more time and effort, as a rule.

How do wardens react to conducted hunts? Most of them consider it a mark of commendation to be assigned to the hunt roster. An existing clause forbids the issuance of an antelope hunting permit to any employee of the Commission, but it does not detract from their pleasure in working with the hunters. The contacts between wardens and hunters have been good for both, in that mutual respect has come from them. New friendships are formed each fall. So far as we can determine, the three-way landowner-hunter-Commission relation has been consistently good. A few exceptions do not necessarily prove otherwise.



Here are some of the fine antelope specimens hanging in a Marfa locker plant.





## Don't Get Left at the Gate!

By CHARLES HJELTE

RELATIONS between sportsmen and landowners are becoming more strained with each new fishing and hunting season. Evidence of this is found in the constant increase in posted areas.

Those "NO TRESPASSING" signs mean "no hunting or fishing." In their shadows lie the portent of things to come... the time when sportsmen may look forward to "hunting seasons" on a rifle range or a "fishing season" in their back yard ponds, unless the feeling between them and the landowners improve.

Seemingly trivial details which the sportsmen may consider of no importance are usually the causes of landowners angrily posting their property.

Sportsmen who are aware of these details and show consideration for the landowners are welcome to take what game and fish they can from property that belongs to another. Those who ignore or overlook these details not only spoil their own enjoyment, they prevent thousands of innocent, considerate sportsmen from enjoying their favorite sports.

Knowing what angers the landowner is the key to preventing the erection of those "NO TRESPASS-

ING" signs, and the key to removing a good number of them.

Although the blame does not lie wholly on either party, perhaps, it is the sportsman who must shoulder the larger portion of it. He is the one who must do the hunting or fishing a good deal of the time on someone else's property.

First among the "musts" on a sportsman's list of "thou-shalts" is *always ask for permission to hunt or fish on private property.*

This little courtesy in itself is a big factor in preventing the posting of property. Taking for granted that all land is open is enough to bring a rash of "NO TRESPASSING" signs for miles around.

Remember, too, that getting permission to hunt or fish on one piece of property does not mean that permission is granted to hunt on adjoining land. Always make sure that you

know where another property line begins—then get permission to fish or hunt on it from the people who own it.

Once you have permission, your responsibility to the owner has just begun.

Be sure you leave no gates open. Don't cut across a field of grain, trampling down a broad-soled boot trail through it. Don't tear fencing wire loose from the posts while letting yourself or companions crawl between the strands. If the landowner asks you not to fish in certain reservoirs or pools, stay away from them. They belong to him.

When you have a gun instead of a rod and reel, observe the same rule on asking permission. Show your respect for the landowner by closing gates carefully behind you. And watch your shooting.

As everywhere else, there are places on private property where you can shoot to your heart's content and places where you have to be plenty careful—and even places where no shooting should ever be done.

Don't shoot in the immediate vicinity of the landowner's home. Aside from the danger of shooting someone

(Editor's Note: The wildlife species listed for Colorado may not be the same as those found in Texas, but the other conditions DO apply.)



going about his work or play, there is the livestock to consider. Even if you do not shoot any, cattle, horses and sheep have been known to stam-pede at any loud, sudden and un-expected noise. Cows have lost their calves, horses their colts because of it, and that's hitting the farmer right in his pocketbook. You would put up a batch of "NO TRESPASSING" signs yourself if you were in his shoes. Chickens and other feathered denizens of the farm can be thrown into pande-monium by a burst of gunfire.

For those reasons, among others, hold your fire until you are well away from dwellings of humans or livestock. You will be doing all you can to win the good will of the land-owner by observing this simple rule.

In getting away from the dwellings, be sure you do not leave a string of open gates, broken or sagging wire fences and trampled fields behind you.

Neglect in burying the cleanings of dead fish or game is another means of rousing the ire of landowners. The resulting stench is one objection. The fact that dogs may often drag in some reeking carrion is another. Then, too, this practice may easily attract coyotes, bear, mountain lions or other beasts of prey that may find the farmer's livestock more attractive fare.

Then always...ALWAYS...know what's moving before you shoot. Shooting a cow or horse can spoil your fun on a particular property for all time, besides causing a consider-able monetary loss. Shooting one of your companions, the landowner or some of his family or someone else would bring untold regret.

Another method of building solid good will is to share your sport with the landowner. Leave a few fish with him for his dinner occasionally. Bring him a pheasant or rabbit, or a steak or roast from bigger game. Farmers and ranchers are busy people and often do not have time to hunt or fish themselves.

While on another's property (or wherever you are when hunting or fishing) be extremely careful with your smokes, your matches, your campfires. A grass fire, brush fire or forest fire could wipe out dozens of landowners, ruin hunting and fishing for as much as a generation or more.

Another good rule is to hunt or fish on the same property year after

year, conditions permitting, of course. In this way the sportsman becomes an old friend. A mutual trust is created, with the landowner and the sports-man both knowing what to expect of the other. And don't just curry favors during hunting and fishing season. Send the fellow a little token of friendship, his wife some little memento between seasons. Even a Christmas card will serve to cement a kindly feeling.

Before closing, it may be appropri-ate to suggest that cooperative units be formed—a sort of club with sportsmen and landowners as members.

For the privilege of using the land, the sportsmen would agree that any damage done to the property would be paid for by the sportsmen as a body. The landowners would receive a monetary consideration or some other tangible consideration for his efforts to improve the wildlife conditions on his property. Or the landowners' streams would be restocked from time to time in order to provide sport for them and the sportsmen, and to com-pensate them for allowing members to hunt and fish on his property. The

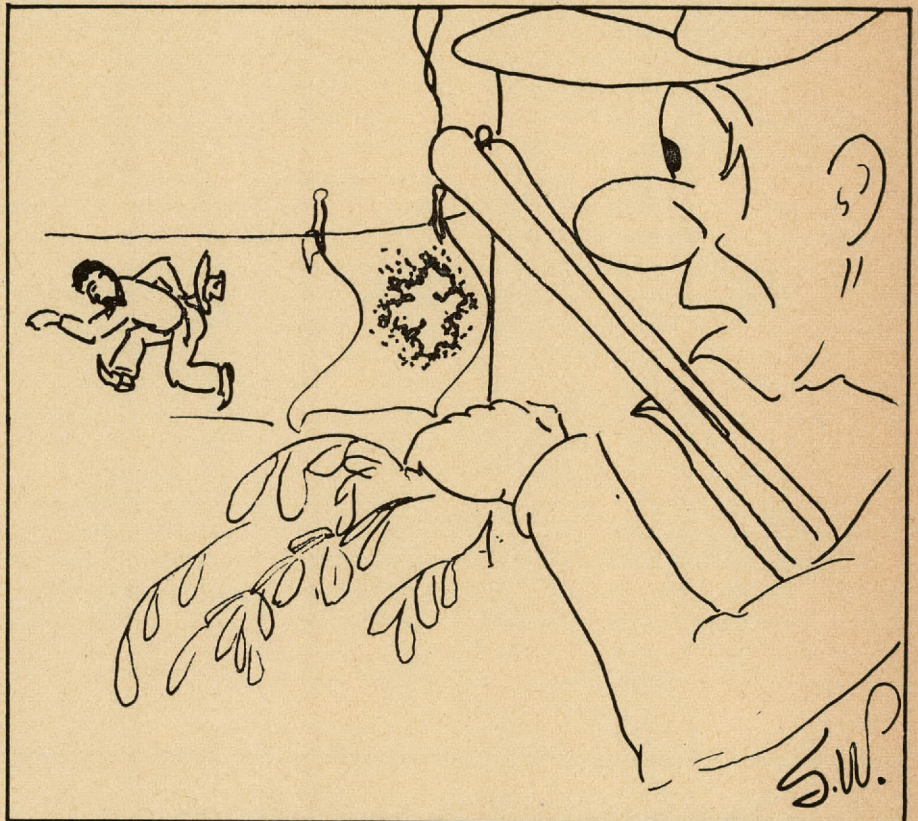
sportsmen would police their own "black sheep."

It would be a reciprocal policy, since the farmer depends on the pub-lic to consume what he produces, and a large portion of the public relies on the farmer, rancher or landowner for recreation.

Along with following the simple rules discussed above, the conscien-tious sportsman must engage in a continuing educational program.

Education, of course, is the long-range answer in making sportsmen feel their natural obligation to the landowner. It is his duty to educate the negligent sportsman, the incon-siderate one who is definitely in the minority, but who, nevertheless, causes the erection of 90% or more of the "NO TRESPASSING" signs.

Through education and the proper punishment for their misdeeds, these people can be made to realize that the good of all depends on the goodness of each individual. It is this unscrupu-lous minority that must be educated or prevented from continuing their transgressions if hunting and fishing are to continue as major sports.—Colorado Conservation.



First among the "musts" on a sportsman's list of "thou-shalts" is always ask for permission to hunt or fish on private property.



# LUMBERJACKS

## of the Animal Kingdom

By "SCALLY" MAURICE

THE BEAVER is a funny little animal with a big flat tail and a terrible habit of eating himself into a home. He picks out a nice juicy tree and proceeds to cut it down. Sometimes he eats the bark and cambium on the bank, and at other times he cuts the tree into lengths that he can handle easily, pulls them into the water and, acting as a tug boat, either floats them to his storage pile or to his lodge.

The beaver lodge is made of mud, cat brier, bramble brier, and short lengths of timber from which the bark has been removed. Shopping, to him, is a pleasure as he brings home the bacon and part of the roof at the same time.

I was quite amused at one time to run across a farmer who wasn't cussing the beavers for cutting down his timber. He was glad to have them around. They dammed the creek on his place, and he had a pond which he could stock with fish. They were also a source of comfort to him since they cut his winter wood—all he had to do was to go out and collect the logs for his fire! Some pieces were even cut to stove length!

If you have never seen nor heard beavers at work or play, then you surely have missed a lot. I've spent hours at twilight and after dark on the shores of a creek listening to

them. It's fun, at dusk, to sit quietly and watch them as they emerge from the lodge. The mirror-like surface of the pond, afloat with all kinds of little leaf boats, is suddenly the center of a storm and the boats rock and bounce and some sink as the beavers come up from their underwater highway. Some head directly for duties and destinations unknown; others swim and dive all over the pond and then slap the water with their tails as if applauding themselves. Slowly, the darkness blots out the scene and then you can hear them swimming and climbing out on the bank.

Soon they are walking all around. You can hear them gnawing on trees and dragging branches. They continue gnawing on all sides, and then, without warning, the crash of a falling tree makes you almost jump out of your skin! Once this happened so close I almost felt the rush of air. The woods were alive with the patter of feet, the dragging of tails, the gnawing, falling of chips, trees toppling and splashing into the water. It was a nightmare in disguise!

How these night time lumberjacks of the mammal kingdom do their logging at night and escape injury is marvelous. Since self-preservation is the first law of nature, I started to leave. The beam of my flashlight picked up the swaying brown bodies

as they stopped operations "Wood-chopper" and headed for deep water. Soon the water was literally boiling with them as they swam and smacked it with their tails. These smacks were louder than the playful slaps had been, and carried a warning that danger was at hand. Gradually the noise subsided as the beavers sank beneath the surface and swam to the safety of the lodge. Then all was still and quiet again.

Being a week-end naturalist, I have spent quite a bit of my time following three different beaver colonies. One of them is located in a swampy section of the county near a river, and the beavers seem to take great pleasure in flooding the road. It's a sort of game of "Put and Take" between the beavers and the Highway Department—the beavers build a dam and flood the road, and the Highway Department has to take the dam down.

As for a preference of trees for food, Mr. Beaver seems to make few exceptions in this section—ironwood, beech, oak, dogwood, and holly have all fallen to the charm of his incisors. He does not seem to care too much for pine (maybe he doesn't like the resin taste), or for laurel and rhododendron.

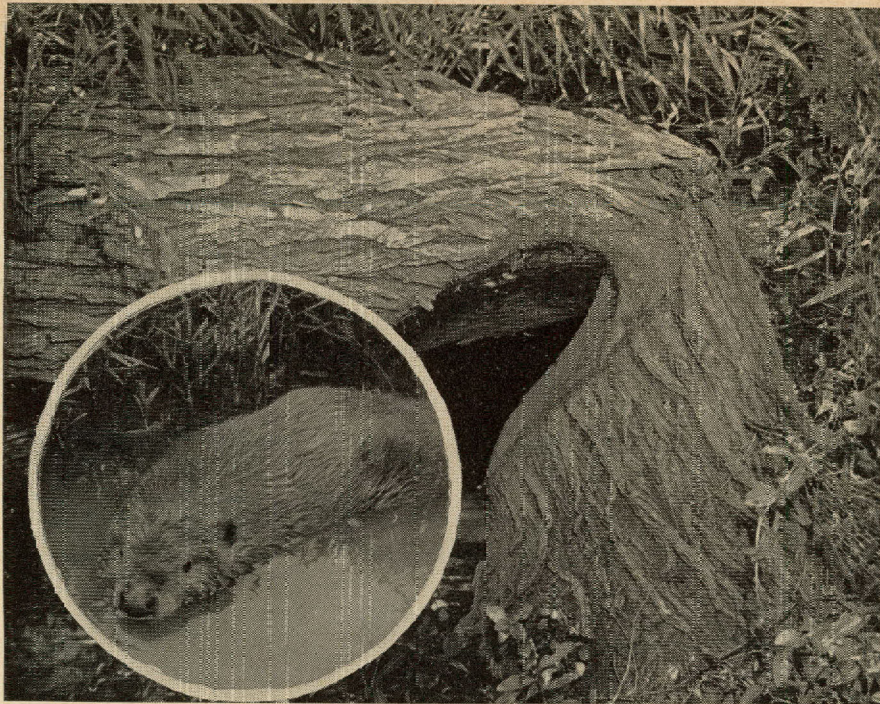
In binding his timbers together for a lodge he uses cat briers, green brier,

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## *A Beaver Eats Himself Into a Home*

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Shopping, to the beaver, is a pleasure, as he brings home the bacon and part of the roof at the same time.

and bramble for twine. The largest tree that I have found cut down was three feet nine inches in circumference, and about eighteen inches from the ground, and it did not block the stream as intended.

After watching and studying the beaver for a number of years, there are still some things I have been unable to learn. First, just where does the beaver go when he takes his vacation? Every year in late summer and early fall they seem to completely disappear from their haunts. Absence of fallen trees, tracks, or new cuttings tells they have slipped away into the unknown. Then, in November, fresh chips, new stumps, and chopsticks show that Mr. Beaver is back again on the job, preparing for the winter ahead. Just where did he go—to the mountains, the seashore, or into hibernation?

Is the beaver a slap-happy ruler or king? It was spring and the bushes and trees were just beginning to show signs of awakening from their long winter nap. It was an hour before twilight and all was quiet in the vicinity of the beaver lodge. Suddenly, the plate glass surface of the

pool was smashed into a thousand ripples, as an average-sized beaver broke the surface from his underwater highway. Around and around the lodge he swam and cavorted, slapping the water with his tail every so often. What a time he was having!

Then in the distance came the sound of a louder slap on the water. As this new sound floated in on the twilight breeze, the beaver swimming in the pool seemed to be alerted. Nearer and nearer came the loud, ringing slaps of the mysterious interloper. Now he was just around the bend in the creek.

The beaver in the pool around the lodge, still swimming in circles and slapping the water with his tail, slowly retreated down the creek. Then from around the bend and down the middle of the creek came the beaver creaknaught, slapping the water a loud crack with his tail at almost timed intervals. He glided into the pool surrounding the lodge, cruising here and there, bashing the water terrific smashes and sending out a thousand little ripples.

From down the creek could be heard the medium-sized beaver as he slapped his way into the night. Later

the big beaver was joined in the pool by others from the lodge, and they swam and dived like porpoises at play. I left them to their fun. After reaching the car, I sat quietly for a few minutes and many thoughts ran through my mind. Deer, elk, and many other members of the animal kingdom have battled to the death for leadership in their respective groups—could it be that beavers did not fight for leadership, but on a quiet cool night, met and tail-slapped each other into oblivion? Or could there be some other meaning to all this noise at twilight?

I've been tempted once or twice to see if the beaver has a "sweet tooth" and just how good is his sense of smell. My idea would be to go back into the area where they do their logging, pick out certain trees, mark and girdle them about eighteen inches above the ground with molasses or honey, and then go back the next day to see if they picked these trees out of hundreds of others to cut down. Trying this for quite a few nights would give some slants as to whether the beavers could smell out the marked trees, and as to how sweet a tooth they have.—VIRGINIA WILDLIFE.



# Co-Operation H

By THERON D. CARROLL  
*Supervisor Conservation Education*

OVER in East Texas, in a county lying between the Trinity and Neches Rivers, where the hardwoods meet and mingle with the pines, a group of landowners, sportsmen, school people, and business and professional men are cooperating with county, state, and federal agencies in a program of wildlife restoration and management.

In this particular area, referred to geographically as Houston County, biologists have found all of the natural essentials to provide food and cover for the most popular big game mammal of Texas—the white-tailed deer. The natural habitat is also suitable for squirrels, bobwhite quail, and possibly wild turkeys. Turkeys have long been driven from this area; bobwhite has done well on a few protected sites; the squirrel crop comes and goes; and the few deer in the area have, according to the natives, in-

filtrated from surrounding counties.

The habitat is suitable. Native food and cover crops such as oaks and the other hardwoods, green briar, yaupon, haw, French mulberry, and native grasses and forbs are present and available. Water is sufficient in spring-fed creeks, two rivers, farm ponds and lakes. Everything seemed favorable, but, where was the wildlife? The people reasoned wisely that perhaps in the human element could be found the missing link. Then they began to see that if the people in the area did not recognize the role of wildlife in the community and did not make provisions for the wise use, management or, if you prefer, the *conservation* of wildlife, they could never expect Houston County to produce the game in sufficient quantity for the full utilization of this natural habitat.

A group of sportsmen and land-

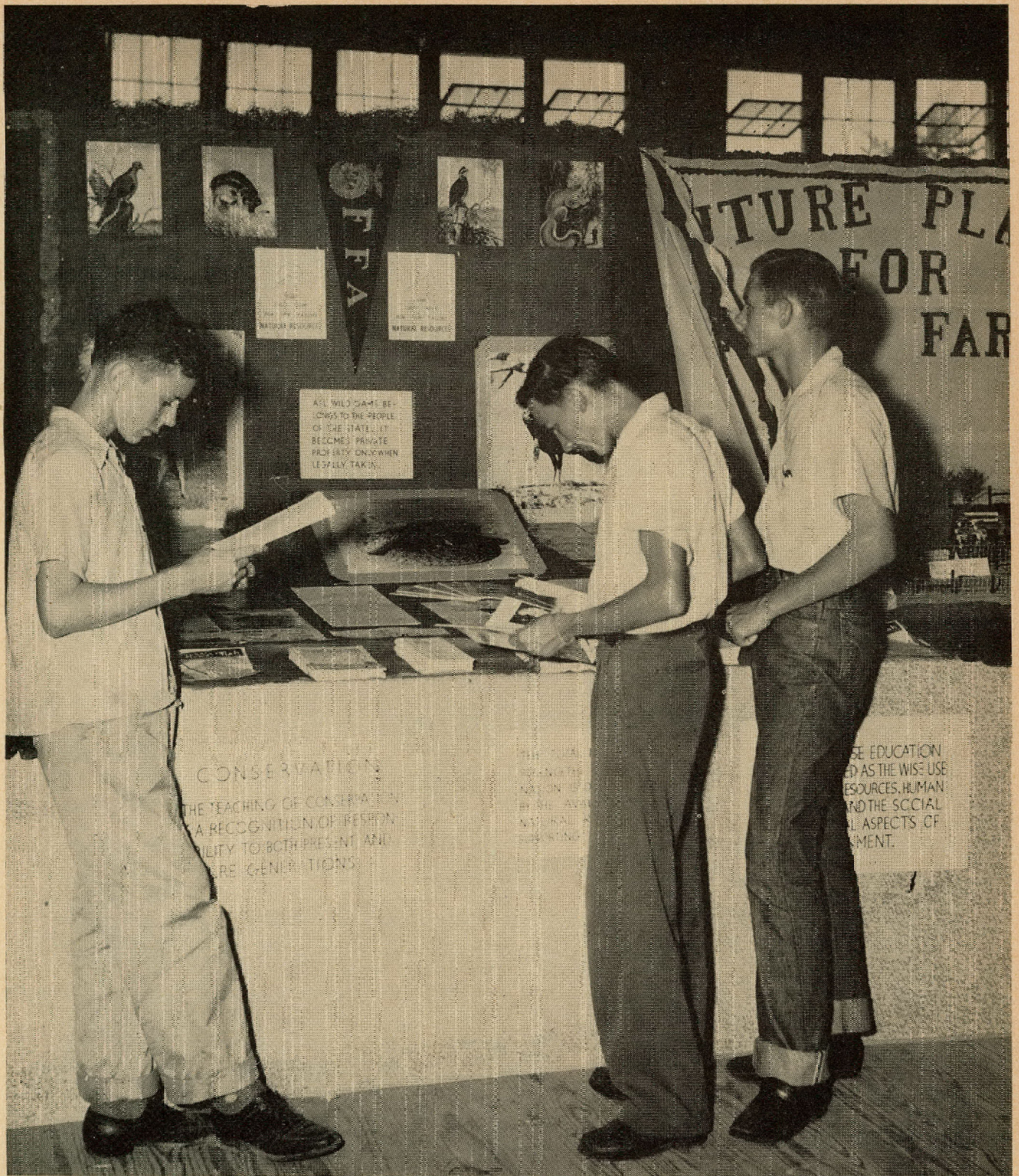
owners sparked by Jack Ashby, a merchant in Crockett, the county seat, worked with state representative, the Hon. Clifford W. Wood, in drawing up and introducing House Bill No. 609 to the 52nd Legislature. This bit of legislation, which was signed by the governor April 12 and is now a law, permits the State Game and Fish Commission to enter into cooperative agreement with the United States for the protection and management of wildlife resources in the Davy Crockett National Forest which lies in Crockett and Trinity Counties. With some 40,000 acres of the national forest land to serve as a nucleus, many of the landowners agreed to the contractual arrangements which made them participants in the project so that, in the end, approximately 100,000 acres will be involved in this unique and precedent-setting Co-Operation H. Basically the plan is this: The state will furnish the game brood stock (restoration); game will be produced on protected federal and private lands where none of the restocked species will be hunted for five years (protection); a sound cooperative management plan will be formulated and working when the area is opened to hunting (management).

This plan sounds simple enough but the people of Houston County know that such a program, to be successful, is going to call forth the cooperative effort of every citizen—yes, even the youngsters have a part to play. *Conservation education* is being introduced in the classrooms in such a way that boys and girls are taught the interdependence of man and the natural resources such as soil, water, forests, minerals and wildlife. A good example of the interest shown is the activity program of the Crockett Chapter of the F. F. A. These boys have their own deer, pheasants, and fox squirrels for year-round observa-



One of the many openings in the pine-hardwood association that is typical of Houston County, the site of Co-Operation H.





Charles Stringer, Jesse Cooper, and Wayne Calloway (left to right) are three of the Vocational Agriculture students who helped arrange their Crockett FFA chapter's wildlife exhibit at the 1951 Houston County Fair.

tion. Many of these Future Farmers are voluntarily taking on wildlife management projects in addition to their regular school work. They allotted their display area at the recent Houston County Fair to a display of

wildlife conservation education literature.

This project is not listed as "secret" or "confidential" in any of the county, state, or federal files—rather it is "open for inspection" to all interested

people, especially those of East Texas who are interested in the conservation of wildlife for the enjoyment of themselves, their children, and their children's children who are all concerned with "Co-Operation H."



# Ducks and the Plow

By J. L. BAUGHMAN

Chief Marine Biologist

FOR many years I have read the comments and papers of various men on why we do not have ducks, and I have seen them quote, a number of times, the casual observations of a casual observer on the Canadian prairies, as to what the situation was there 40 years ago. These comments, papers and quotations, while well meant and as accurate as their author could make them, no more approach what actually happened than Kip Farrington's book "The Ducks Came Back," although for a different reason.

Thirty-nine years ago my family moved to a farm 60 miles north of Regina, Saskatchewan, in the middle of the three prairie provinces of Canada. We went on the train through Emerson, Manitoba, to Winnipeg, thence up through Brandon, Virden, Moosomin and Qu'Appelle, to Earl Grey, and so home. At that time this was a vast and rolling prairie, dotted at intervals by tiny lakes or sloughs, and inhabited at much rarer intervals by a few farmers whose sod houses and tar paper shacks stood up against the treeless prairies, solitary outposts of civilization's advance.



Our home was two and one-half miles east of what is known as Long Lake, a body of water some 60 or 70 miles long and 3 or 4 miles wide. We had perhaps a half a dozen neighbors within a radius of five miles and except for their fenced barn lots and the pitifully small area that they had under cultivation at that time, the whole vast sunny land was just as the Indians and the buffalo had left it. Buffalo skeletons and skulls were scattered here and there on the prairie, and the remains of the trails, grass grown, although still some 6 to 10 inches deep, meandered in from the range of hills to the east, serving to remind you of the huge herds that once utilized this vast pasture. Gopher mounds, as we called them, were everywhere, riddled with badger holes, which these animals had dug while feeding upon the gophers. Coyotes were

almost the only predators and as they fed principally on the ground squirrels or gophers, the ducks had little to bother them. As a result, on every slough and pond in all that wide and untenanted land there were ducks, not by the thousands, but by the millions. Mallards and pin-tails, shovellers and teal, squattered and quacked and dozed in the sun, waking up occasionally to feed.

During the summer the great majority of the ducks on the sloughs were drakes, for the females were busy rearing their broods. These broods were reared, not at the edges of the pond, or even, in many cases, close to them, for I have found the nest, time after time, as much as a half mile from water, and I have seen many a duck mother waddling down the trail ahead of me, her brood in single file behind her, peeping merrily and making brave little dashes after the insects inhabiting the jungles of grass.

These youngsters were born on the prairies and reared in the sloughs where predators were at a minimum. Once they had attained sufficient size to fly they migrated to the larger lake where they remained until it was time to go south for the winter. It is in this paragraph that the crux of the entire situation lies.

The first year that man plowed, the sloughs had water in them until July or August as they had always had. The second year because much of the run-off sank into the ground instead of draining, the water in the sloughs did not last as long. The third year there was still less and by the fourth or fifth year the slough bottoms themselves could be plowed. Here, then, you have the destruction of the nesting grounds themselves first, and, secondly, the destruction of those safe harbors, the sloughs, in which the youngsters could grow to maturity without being exposed to the attack of any predator, except an occasional coyote.

As the years went on and the vast pasture land

● Continued on Page 31



# Ranchers and Farmers Can Raise Quail

By C. D. EDMONDSON

State Game and Fish Warden

ONE rancher's efforts to raise quail caught my eye on a swing through his property near Cuero.

This man had ideal country for the fleet game birds. His first step to encourage them was to plant a variety of quail food crops—lespedeza and maize.

Then he went on from there to build quail shelters. His own style was piling brush, half of mesquite and half of huisache. He framed the stacks around stumps of mesquite trees about three or four feet high. The larger limbs stacked on the stump provided an excellent umbrella-type cover.

To protect the birds, all riders and workers on the ranch were equipped with .22 rifles to destroy house cats, skunks and armadillos. Predators now are scarce on the ranch.

Before getting into the statistics on quail population, it is pertinent to note that quail have been harvested on this ranch for the last twelve years. The rancher advocates harvesting at least one-half of small coveys and two thirds of the larger coveys. The coveys range from twelve birds to thirty birds.

No one could actually call our count of quail an exact survey, because it does not cover the complete ranch. Our count was conducted along the roads that were made while constructing cover and along those going to tanks and feeding places for livestock.

On the day that I made this inspection tour of the ranch, the weather conditions were not ideal to catch quail under cover. The reason for our making the trip was to feed the quail since there had been an extreme drouth in this area. The feed consisted of crushed corn, shuck, cob and corn. The corn not only makes ideal food, but the shucks served as a suitable material for the quail to dust in.

The first pasture that we visited consisted of 580 acres. Shelters were built on the south and east sides of the pasture, actually covering approximately 350 of the 580 acres. On this plot,

there were 15 man-made shelters and nine natural shelters, making a total of 24. On my visit, we saw under these shelters 12 coveys of quail, with at least 20 birds to the covey. Birds were more abundant where little bluestem and sage weeds were growing, and less birds were seen where mesquite grass prevailed.

In the second pasture of 910 acres (shelters built on one-third of the area), there were 10 man-made shelters and five natural shelters where feed was left scattered. Nine coveys were found under the 10 man-made shelters.

In the next pasture, consisting of 800 acres, there were 32 man-made shelters and nine natural ones. On this particular trip, we counted 26 coveys of birds.

I am sure that this is no record of birds per acre, but at least it shows what a rancher can do when he wants a particular kind of game on his ranch.

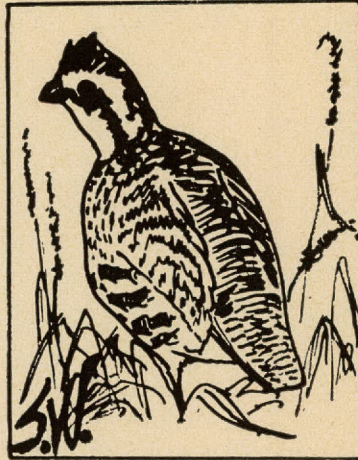
For a complete picture, there were a total of 2,290 acres of land, with an estimated one-half in cover; 57 man-made shelters, and 23 natural shelters. Even under adverse conditions, we saw 47 coveys of birds with an average of 20 to

the covey. This makes a total of 940 quail that we saw that day.

During the last week of the 1950 quail season, this particular ranch was hunted on by a party of 20 to 25 men. Each man bagged his limit by 11:00 a.m., after beginning the hunt at 8:00. The next day, the weather was very disagreeable, but all completed their hunt by 2:00 p.m.

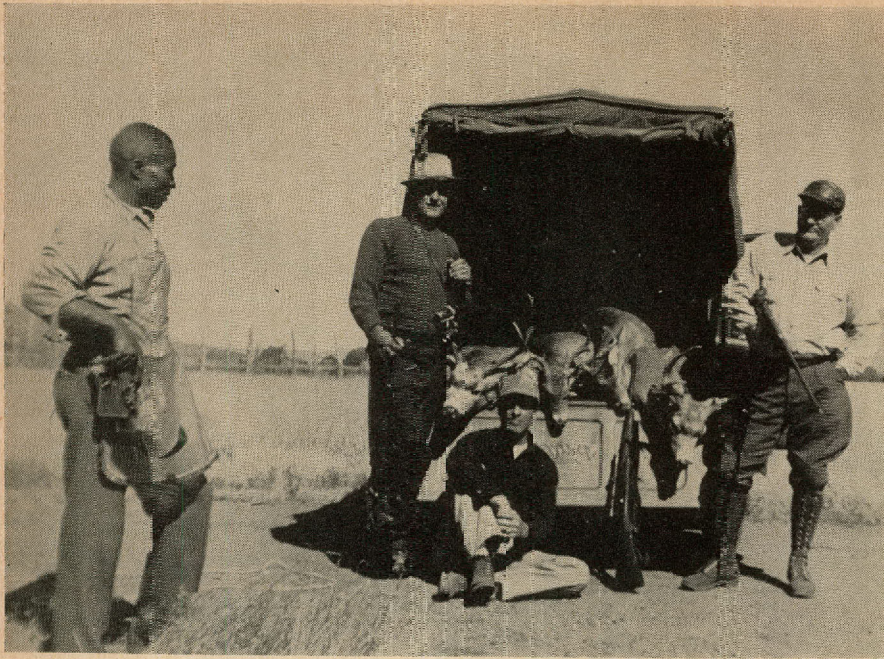
To further aid conservation, these hunters sent quail wings to the Game Commission in Austin, so that biologists could determine the age and sex ratio and other important information concerning this game bird. In return, this information was given to the landowner and hunters for their use.

I am sure that this rancher has no outstanding record of quail on his ranch, but at least you will have to give credit where credit is due. I think that he has done a marvelous job in the protection and conservation of quail.





# Deer



Karnack lines up the hunters, Finis, the author, and Sam, for a final shot.

By LEIGHTON B. DAWSON

**N**OVEMBER 5th. A two car caravan of deer hunters moved on Ft. Davis, headed for a hunting lease right below the McDonald Observatory.

As we sped along the mountainous road, we flashed by a highway sign that read, "Watch for Deer."

That sign was strictly superfluous, as far as we were concerned. For the past several miles or so, that's about all we had been doing—looking horns on every likely looking rock.

Four guys and a cook, with but a single thought. Deer. There are Murray Knox, Finis White, Sam Wheeler, myself, and Karnack—our cook—from Karnack.

All of us except Sam have been deer hunting in the Davis Mountains before. Sam has hunted deer all his life, but never the mule deer West of the Pecos.

"Sure want to get me one of those big ones," he said. "One I can take home and have mounted."

"Well, I'll tell you, Sam," I said, "these muleys are different. You don't

hunt 'em like whitetails."

"Oh, sure enough?" he replied. "What's different about it?"

"Well, you gotta ease along one of these canyons," I told him. "About a third of the way up. The trick is to jump a deer on the other side of the canyon. And then let him have it."

Sam glanced out at the rugged, rocky terrain of those mountains, and his eyes took on a sort of leer.

"You mean I gotta walk up and down all them things?" he queried.

"That's correct, Sam," I replied. "That is, if you want to get the kind of a deer you're looking for."

His only answer to that was a loud "Humph!"

It isn't that Sam is lazy. He is just conservative of his energies. One of these slow, easy-going guys who never gets in a hurry. He isn't slow about getting up in the morning, though. . .

**November 6th.** The first day of our hunt, and Sam got up at 4 a.m., just a mere three hours before daylight. That meant the rest of us had to get up, too. But just to be frank about

it, we had been ready to do that for about an hour ourselves. First day of deer season, y'know.

And cold? Wow! That wind felt like it was coming out of an ice box. I was glad when it got light enough to see, so I could start walking. I was almost as anxious to get warmed up as I was to get a deer.

This country is beautiful from a distance, but it sure is rough up close. The contours are sort of straight up and down, very precipitous—especially the canyons. That's where I was this morning—in the canyons. The rugged, rocky, tree-lined canyons, where the grey shadows lurk. The kind you strain your eyes on trying to see if there are any horns on them.

After the sun came up, things warmed up a little. At least enough for me to stop shivering so that I could concentrate on deer hunting.

Three hours and four canyons later I got a deer. A little buck mule deer. Typical cross-canyon shot—the deer was running full tilt when I got him in my Lyman Alaskan. One hundred and thirty grains of silvertip in my 270 was just the right medicine.

It seems, however, I picked the roughest, most inaccessible place in the Davis Mountains to kill a deer. I couldn't even get to him with a horse. But with the help of Karnack, I finally managed to get him back to camp.

Meanwhile Finis got a whitetail with his 30-06, and that made deer number two.

Murray wasn't so lucky. He came dragging in to camp a little after sun-down—looking about like I felt. Very, very weary. After comparing our experiences, we've decided we

## HUNTING DEER WEST OF THE PECOS



# Diary

didn't exactly whip the Davis Mountains today.

Sam didn't get in until after dark, and he was so noncommittal we couldn't find out very much about what he had done.

**November 7th.** It sure was hard to get out of those sleeping bags this morning. Somebody turned the air-conditioning up too high during the night. But that early morning chill was nothing compared to the sore feet, sore legs and sore backs in our crew. Oh, the life of a deer hunter!

Finally we got enough hot coffee inside to make us perk, and we got ready to go after the deer again.

I don't think any of us went too far afield today, though. The spirit was willing but the flesh was weak.

Everybody was back here in camp long before dark. That is, everybody but Sam. He came strolling in about 7:30.

As soon as we heard him coming, Finis hollered, "Didj'a have any luck, Sam?"

"Nope," he replied. "No luck. Didn't even see a deer."

Now we have all seen a number of deer since being here, so it was hard to understand why Sam hadn't seen anything at all.

That prompted Murray to ask, "What in the world have you been doing all this time, anyway?"

"Well, I walked around a little bit," Sam replied. "And then I found a likely looking spot and built me a blind. I've been down there ever since."

"Well, I'll be durned," I said. "Here's a guy who comes 750 miles to hunt mule deer, and then he spends all his time in a blind."

"You're not in South Texas now," Finis told him. "You've got to keep moving around out here to get a deer."

And so all of us so-called West

Texas deer hunters proceeded to give Sam some very valuable advice on how to hunt mule deer.

"Aw nuts," Sam said. "Deer are deer. Doesn't make any difference what kind they are. If you get close enough to 'em, you can get 'em."

**November 8th.** This morning Murray and Finis took the pickup and went over to another pasture. They're always greener on the other side.

They claim that they really hunted hard all morning, but they didn't have any luck; so they had quit deer hunting to come in and eat lunch. They were walking back to the pickup—doing everything that a deer hunter is supposed not to do, laughing, talking, joking, and making a lot of noise, when up jumped two big buck mule deer.

Bang! Bang! Two deer. Just like that. All they had to do was back up their pickup and load them in . . .

I really felt sorry for Sam tonight. When they asked him if he had seen any deer yet, all he could say

was "Nope." And those other guys really did rub it in about what a cinch it is to get one—if you just know how!

**November 9th.** Getting that big deer was all Murray wanted, and since Finis already has two, both of them are through deer hunting.

Funny how old deer hunting gets, after you've got your limit. After Sam left, Murray said, "Wish that guy would hurry up and get him a deer, so we could go on home."

"You all leave Mistah Sam alone," Karnack said. "I bet he's got his eye on the biggest deer in these mountains right now. He always gets him a good one."

"Well it's about time," Finis said and then he added. "Sam is never going to get him a deer out here, the way he's hunting."

Murray added, "If there are any deer down there where he's hunting, he would have seen one before now."

This evening Sam came in empty handed as usual. We quizzed him pretty closely about what he had been doing.



In the canyons where the grey shadows lurked—the kind you strain your eyes on, trying to see if there are any horns on them.



"Oh, I've seen two or three little bucks," he admitted. "But I didn't even try to shoot at them. They were not quite in range, for one thing."

"Oh, I see," said Murray, winking at the rest of us, "you don't shoot until you see the whites of their eyes."

"You'd better go ahead and take what you can get," Finis told him. "The season will be over, and you won't have a deer."

**November 10th.** I knew that if I didn't get my deer today, I wouldn't get him at all, because I was through. My feet were killing me, and my legs just wouldn't take me where I wanted to go any more.

I went out a little piece from camp, just before daybreak, and got settled in some rocks up on the side of a canyon. I'm not a geologist, but I found out something about rocks this morning. They get you cold a lot quicker than you get them warm.

By the time the sun came out I was chilled to the bone. But that was not what made me shake so. It was those grey shadows I saw moving around in some trees down in the valley, about 400 yards away.

The light was still not too good, but with the help of my binoculars, I managed to pick out one of those shadows with horns on it. But when I put my binoculars down, I couldn't find it again with my rifle scope.

Meanwhile every time that cold wind hit me, I would shake like an aspen. Not buck fever, you understand. Just cold.

I finally got my deer spotted by an old dead tree and then sighted my scope on him. I made a rest for my rifle by putting my knapsack on a rock in front of me. After that it was just a matter of getting a hold of myself long enough to squeeze the trigger.

The minute I shot, all the deer in the country started streaming out of those woods. That is, all except one, and that one jerked up and down two or three times back where I had shot him.

When I got down to him, he was stone dead; a little white-tailed buck.



The mule deer grow big in the rough and rugged Davis Mountains of West Texas as Finis White and Murray Knox will testify.

I thought sure Sam would have one when he came in this evening, or at least I was hoping he would, as I'm sorta like Murray and Finis. I'm ready to go home now.

But no. It's the same story with Sam. Still no deer. That guy is jinxed.

**November 11th.** Last day of deer season. This morning Sam got up at 3:30. He wasn't taking any chances on getting out there too late! And when noon came, he didn't even come in for lunch.

"Mistah Sam's done got him a big deer spotted," Karnack said. "He's waitin' him out."

"He won't have much longer to wait," I said. "This is the last day."

"Oh, he would'a done had him a deer before now, if he had'a wanted one," Karnack said. "He's just lookin' for a pertic'lar one."

Of course we all knew Karnack was just being loyal. Sam's chances of

getting any kind of deer were getting dimmer by the minute.

Late this evening we thought we heard a shot from over in the direction of where Sam was hunting. But the wind was blowing so hard we couldn't be sure.

When the sun finally went down, we knew Sam was through. Karnack still wouldn't give up, though. After awhile, when it began to get dark, he went down to see about Sam.

He hadn't been gone long when he began to holler like he had seen the promised land. We all went down there then, to see what it was all about.

When we did, we found Sam sitting very calmly by a tree, smoking a pipe, and watching Karnack finish clean the biggest buck mule deer I've ever seen.

"Yep," Sam said. "It's all in knowin' how. If you get close enough to 'em, you'll get 'em every time."



## BLUE GEESE

The Blue Goose is one of the most distinctive of the North American geese. It is not large, yet its markings, the dark body, white head and neck, and pink to lilac feet and legs, make it easy to identify. Once a person knows this goose, he never forgets it or confuses it with any other species.

Its scientific name is *Chen caerulescens*, *Chen* being the Greek word for goose and *caerulescens* being Latin for bluish.

It was only in 1929 that the nesting grounds of the Blue Geese were found. Up until then, finding their breeding resorts was one of the most alluring of the unsolved problems in American ornithology. J. Dewey Soper, acting under the direction of the Department of the Interior, Ottawa, Canada, discovered the nesting grounds on June 26, 1929. The site was a portion of the great western tundra of Baffin Island. The next year, G. M. Sutton found Cape Kendal, Southampton Island, Hudson Bay, to be another nesting site of the Blue Geese.

The nests, most of which are made of finely plucked and shredded moss and lined with a mixture of fine, dead grass, are built on the slight elevations of the tundra. From 3 to 5 white or very pale creamy white eggs are laid in the large, bulky nests. According to Soper, the males stand by at the nest to take turns at incubation, which is from 23 to 25 days.

The young of the Blue Geese are very active. They are hatched around the middle of July, and when only a day or two old, they are able to run with surprising rapidity and endurance. They also develop fast and are capable of short flights when little more than a month old. Then in early September, they participate in the autumn migration when they are only two months old.

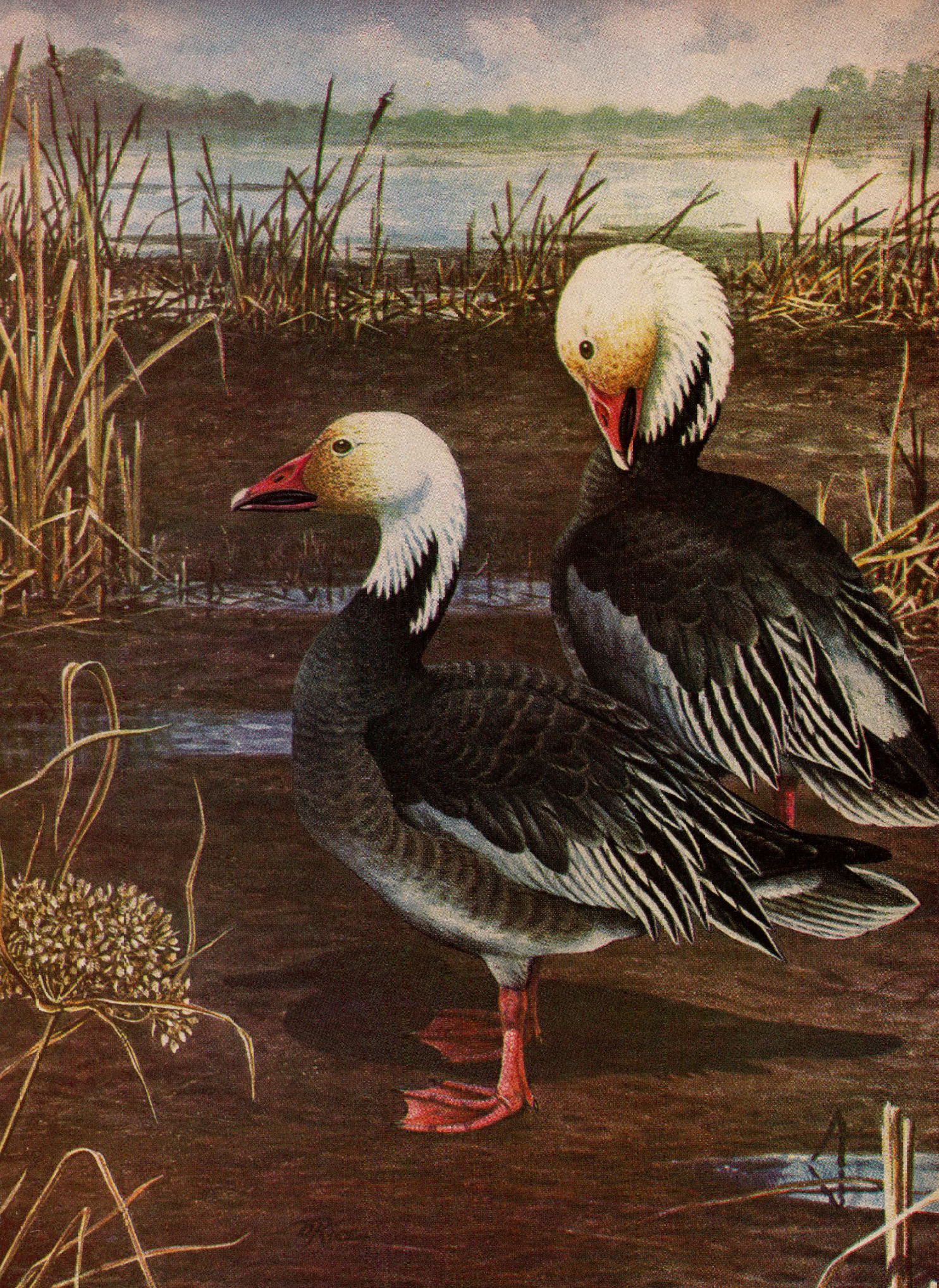
The Blue Geese are voracious feeders, and the chief food on their breeding grounds is the common tundra grass. Large areas often appear cultivated because the geese tear up the soil while searching for vegetation. While the plant life on the summer range is completely different, the feeding habits are similar.

Although the Blue Geese winter chiefly on the Louisiana coast, some are found in the eastern part of Texas, near the coast.















# Wildlife and Grass

By EVERETT F. EVANS

WHAT if the missus did call you a "dumb ox" just because you forgot the groceries? After all, you do eat grass, but she could have left off that word "dumb." Of course, you do not go out on the lawn and graze like a moo-moo. Instead you feast on corn flakes, pancakes, hot rolls, eggs, steak, and pork chops (I can dream, can't I?). The point is that we depend upon grass much more than we realize.

This idea was expressed more artistically by a noted historian, Hendrick Van Loon: "The history of man is the story of a hungry animal in search of food. History is also the story of man's constant search for grass, the basic food source in the universe."

Every scribe who believes in beating swords into pencils recognizes the species which Van Loon referred to as a "hungry animal." Perhaps the more intellectual folks will ponder that statement about grass being "the basic food source in the universe."

Before attempting to trace the relationship between wildlife and grass, let's consider our own dependence upon grass. Corn, oats, and wheat belong to the grass family, which means that corn flakes, oatmeal, and bread from wheat flour are grass products. If you can't walk past a soda fountain without buying a couple of scoops of ice cream, you're definitely a grass eater. Ice cream is a product made almost entirely from grass. Cows manufacture grass into milk and cream; and most of the sweetening for ice cream comes from sugarcane, a grass plant. A hen transforms grass seeds, which we call grain, into eggs. Beef and pork are the products of

animals which eat grass and grass products.

Wildlife is equally dependent upon grass for food and cover. Because of this dependence several species have fared badly in competition with livestock. At one time the nation's grasslands supported more than one hundred and fifty million grass-eating big game mammals. Among these were the bison, elk, bighorn sheep, mountain goat, mule deer, white-tailed deer, black-tailed deer, and prong-horned antelope.

Bison and elk were common in some parts of the South until about 1750. The bison disappeared from West Texas about a century later. The mule deer was once common in the foothills and outlying deserts of West Texas but has declined in numbers in competition with domestic livestock. Mule deer and white-tailed deer compete for food where the range of the two species overlap. The mule deer has shown some tendency to increase in a few areas which have been protected against overgrazing by cattle and sheep.

The prong-horned antelope also has had a hard struggle to survive on the ranges of the Southwest. In the western half of Texas the antelope was once second only to the bison in numbers. By 1890 the pronghorn had been removed from most of its range in Texas and Oklahoma.

Hunting and the fencing of range land hastened the decline of the antelope. This game animal was an important source of food during the early settlement of the Panhandle. Many antelope were killed because they grazed on livestock range. During blizzards some antelope perished

along fences while seeking ravines for shelter.

Prong-horned antelope respond well to proper management. However, the best natural environment for antelope is not necessarily the best range for cattle and sheep. The pronghorn eats weeds and brush. This animal sometimes declines in population as grasses replace other kinds of plants. Antelope have a keen sense of sight. They prefer to feed in open areas where natural enemies can be seen at a great distance.

White-tailed deer eat grasses and many other plants. Deer can use several different kinds and combinations of habitat. One reason for the wide distribution of this species is its adaptation to a mixed land pattern, such as farms and forests or grassland with brushy cover. Deer depend upon both sight and hearing to detect enemies. Like other grass-eating big game animals, the deer suffers in competition with intensive farming and grazing and the burning of ranges, cedar brakes, and pine forests.

The prairie chicken is another example of the relationship between grass and wildlife. Much of the open land from the Appalachians to the Rocky Mountains was once inhabited by prairie chickens. These interesting and valuable birds no longer occur in sufficient numbers in the South to be of major importance as game. The greater prairie chicken was rarely seen in Texas after 1900, and only a few thousand of these birds are still present in Oklahoma.

The lesser prairie chicken once inhabited much of the rolling plains region of Texas and the plains of Oklahoma. In both states this bird





Grass protects soil and water while providing grazing for livestock and food and cover for wildlife. (Photo courtesy Tennessee Valley Authority.)

is now restricted to local areas in the Panhandle. Overgrazing and burning of range and pasture land, intensive farming, and overshooting have caused the decline of prairie chickens.

The Attwater prairie chicken, like its relatives, is a victim of habitat destruction. This species is now limited mainly to a few areas along the Gulf Coastal Prairie. In this region, rice farming and overgrazing have reduced the range of the Attwater prairie chicken, just as cotton and grain farming reduced the range of the lesser and greater prairie chickens on the plains.

Restoration of prairie chickens is a challenge to wildlife and grassland management in the South. Prevention of burning of range and pasture land and the improvement of food and cover are two practices which are generally beneficial to all upland game birds.

Wildlife and grass have a mutual dependence upon soil, and this is another link in their relationship. Grass provides a favorable environment for bacteria, fungi, molds and

other organisms which are the life of the soil. Living grass roots carry minerals to the topsoil, and dead roots add organic matter. The root system of a grass plant provides a network of channels through which water can soak into the subsoil.

Grasses and trees are the principal kinds of natural vegetation in the South. Their character and distribution are related to both soil and wildlife. Forests develop in humid areas, and grasses take over the land which does not produce trees. Grasses are adapted to a wide range of conditions, and they grow on land which is too wet or too dry for forests. Some grasses also grow in places which are too cold or too high in elevation for trees. Grasses do best on good soil, although they can tolerate certain adverse conditions.

Grass protects both soil and water. Without the influence of a good vegetative cover, rain rushes off the slopes carrying silt into streams and reservoirs. Grass roots filter the water which soaks into the soil and the water which seeps out of the soil

through springs. This process improves the quality of water in streams and the regularity of stream flow.

The effectiveness of grass in protecting soil was established by research at ten erosion experiment stations in the United States over a period of ten years. Records at these stations indicated that five times as much runoff and five hundred times as much soil were lost from cultivated fields as from comparable land under grass sod. The influence of grass on soil fertility and erosion control is another factor in the connection between grass and wildlife.

All grasses occur on two narrow strips of land extending north and south through central Texas. Here the rainfall is thirty to fifty inches a year. There is enough moisture to support trees, but grasses are better adapted to the soils which are high in calcium or phosphate.

Most of the land which formerly produced tall grasses is in cultivation, but some areas provide excellent grazing. The most common native grasses are big bluestem, switchgrass, Indian-



grass, and little bluestem. Bobwhite quail is perhaps the most important wildlife species associated with tall grasses.

A mixture of tall and short grasses covers almost half of the state, extending north and south through west-central and southern Texas. Annual rainfall in this region varies from sixteen to twenty-eight inches, with the highest precipitation occurring in the spring. Tall grasses grow in the areas of higher rainfall, and short grasses grow where rainfall is light. Many areas of mixed grasses have been plowed and planted to small grains. The native grasses which have been properly managed provide excellent grazing. Little bluestem, buffalo-grass, side-oats grama, hairy grama, dropseed, curly-mesquite and Indian grass are the most abundant native grasses. The Texas wintergrass, purple three-awn, and western wheatgrass are somewhat less common.

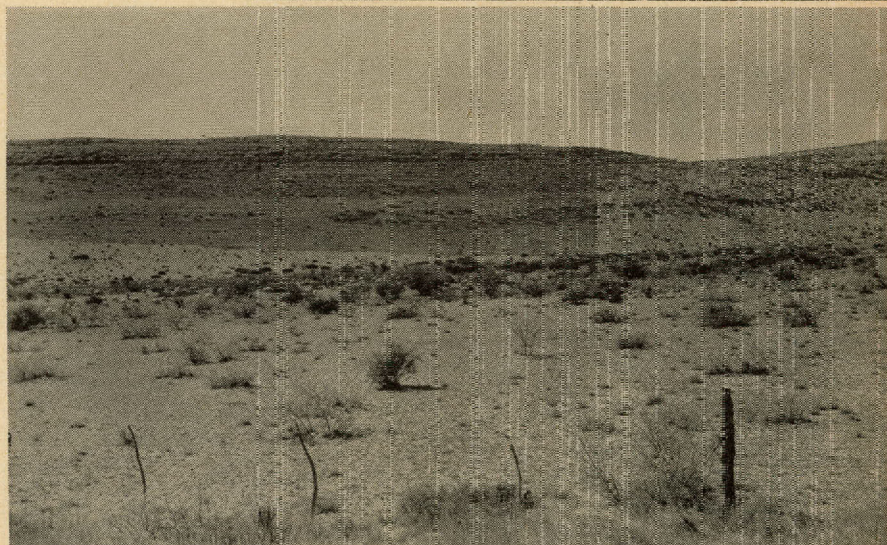
Some areas of mixed grasses in the southern part of the state afford a good habitat for bobwhite quail. Deer occur where a mixture of grassland and brushland provides both food and cover.

Short grasses occupy the high plains in the Panhandle of Texas and Oklahoma. There is a smaller area of the short grasses in the high elevations in the Trans-Pecos country of West Texas. Precipitation is from sixteen to twenty-four inches annually, with most of the rains occurring in late spring and early summer. Less rainfall would result in the growth of desert grasses, while more moisture would encourage mixed or tall grasses. This indicates that precipitation can determine the vegetation of a given land area.

Grasses which are associated with the deep loam soils in the short grass region include blue grama, buffalo, and dropseed. Little bluestem, black grama, and hairy grama grow on the sandy soils. Clay land produces tobosa, burrograss, red grama, and buffalo. Wildlife in this region includes antelope, scaled quail, prairie chicken, and pheasant.

Most of the desert grasses grow west of the Pecos River. This region consists of a large area in the Trans-Pecos country of West Texas and a

The prong-horned antelope is the principal big game animal on the open range land of West Texas. (Photo courtesy Texas A.&M. College Extension Service.) The land in the foreground (lower photo) and at the right has been overgrazed. The darker area has been protected by fences. Bison (bottom photo) were once common on the grasslands of Texas. (Both photos courtesy Soil Conservation Service.)



● Continued on Page 29



# *Fish, Hunt and Look*

By JESSIE MAYE C. SMITH

IT MIGHT be said that I am in but not of the sports circle. It is against this background that I have gathered the information I set forth here about non-game birds which may be observed by Texas sportsmen.

If the success of the endeavor may be measured in an unorthodox manner my husband's efforts to make a sportswoman of me succeeded beyond his fondest hopes. That's why I claim a special right to discuss my present subject. It was extremely flattering to find myself included in all his plans for outdoor activities in the early days of our marriage. I was to learn to fish and hunt so I could share the pleasure of all his expeditions. I visualized idyllic days spent together in romantic woodland settings. It was a disappointment to find that his special love was fly fishing, which he considered far too hazardous for me since it involved wading in streams with treacherous footing. Therefore, I was to be made comfortable on the streams' banks with suitable paraphernalia for still-fishing.

Much could be written about my experiences with wriggling, smelly bait; with the heat; with chiggers and mosquitoes; with poison ivy, and angry bulls. Then there was the undeniable fact that it was lonely waiting for the hours to pass until he returned, usually bringing the day's limit of fish. Hunting was no better. I had no desire to kill anything, and generally made him so uncomfortable that again I was left behind in a place of safety. It was during these periods of waiting that I began to observe the great numbers of non-game birds which moved about in the water and in the woods.

By the time the two events occurred which marked the end of my partici-

pation in regulation field sports my curiosity about this phase of wildlife was so aroused that I had a reason of my own for wanting to be a part of any trip afield. The fact that my husband's pleasure amounted almost to delight at this turn of events can be explained by the nature of the incidents leading to my concentration on hunting with binoculars. While still-fishing from a boat in Thurber lake a monstrous bass struck my hook. Forgetting all about the technique in which I had been so carefully instructed, I proceeded to haul the fish into the boat in what I was later told was a most unethical manner. The action was accomplished by shrieks which brought my husband across the lake. After disentangling me from the fish, which weighed four and one half pounds, he offered to rebait my hook. This gallant gesture revealed the fact that in the heat of the battle I had thrown my rod and reel overboard! Soon afterward we went hunting and I was given first chance at a squirrel perfectly posed for a target. After I fired four times he remained in the same position, completely unalarmed.

Now it was tacitly agreed that I was not obliged to fish or shoot in order to be included in the outdoor jaunts, and I was inexpressibly relieved. All my time afield could be devoted to learning about the birds I'd had such tantalizing glimpses of while supposedly engaged in the other pursuits.

There was the matter of the "cranes" for instance. It was as such that the associates of my mentor referred to the various stately wading birds which we encountered. These were not cranes as I had known them during my childhood spent in the Texas Panhandle where we often saw

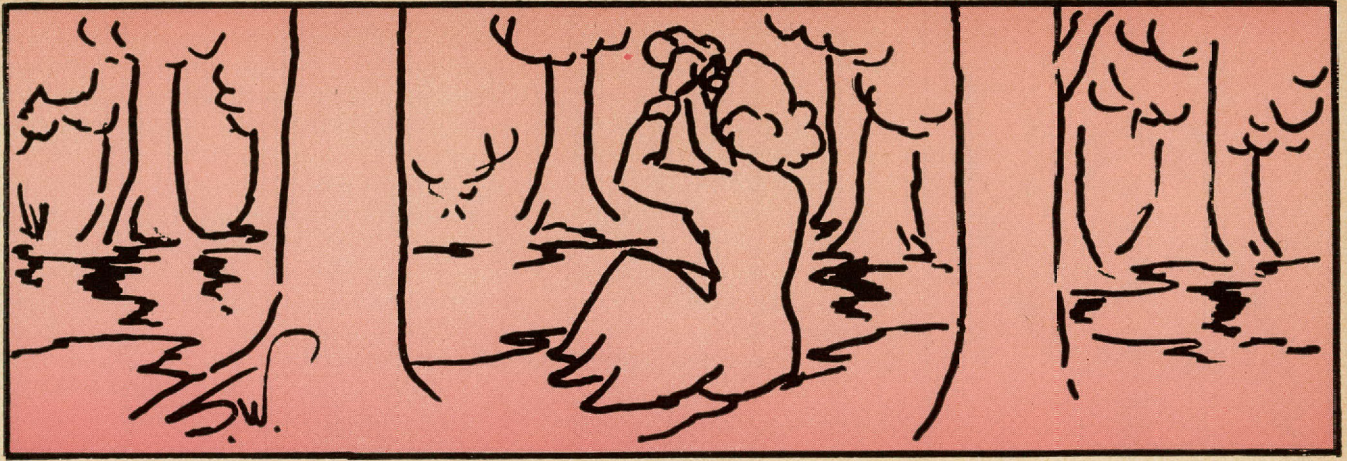
huge migratory flocks of the spectacular sandhill cranes alight to feed in pastures and fields. Curiosity led me to delve into the matter and many interesting facts about "fishermen's cranes" came to light. When flying these birds draw their heads back onto their shoulders, while true cranes always fly with necks extended. This characteristic flight and the variety of sizes and colors proved to be a great help in identifying them as members of the heron family.

Most majestic of the commonly seen herons is the great blue. The adult of the species is slate blue, with a whitish neck and head, the head being ornamented with a black crest. The great size, he stands about four feet tall, and his deliberate and skillful feeding habits make him an object of interest to any observer. Much of his hunting is done from a motionless position in shallow water. When his prey comes within striking distance the curved neck is straightened with incredible speed; carrying the long, sharp bill to the target with accuracy and force. In wading from one spot to another he moves with the utmost dignity and caution, placing each foot with precision. Flight is accomplished by slow, methodical flapping of the strong wings. He prefers to hunt alone, but nests in colonies composed of many pairs of his kind.

This bird is seen on many of our Texas streams and lakes throughout the year. Breeding occurs from the Gulf Coast into Canada, and wintering is common in the southern states, and rarer in the north and east.

Acquaintance with the little blue heron brought with it a great deal of confusion. To begin with these "little blue cranes" are not the young of the





great blue as is often thought. They are a distinct species, and while the adults do have the same slaty-blue plumage as the great blue heron, in other respects they differ greatly. The neck and head of these birds in the adult plumage are purplish-red, but this is difficult to observe except at very close range. What really complicates matters for the bird student is the fact that they do not acquire the blue plumage until they are about two years old. In the meantime they are white or mottled white and blue. The size is about half that of the great blue heron. They often feed in flocks in shallow water, and while they have some of the caution of their larger relative they do not give the same impression of stealth which that bird gives. Some inland nesting takes place, but much of it occurs on or near the coast.

After the nesting season the family groups wander far from the breeding grounds, and may be seen in all the southeastern section of the United States, some of the midwest and occasionally in New England. With the onset of cool weather they move south, some remaining along the Gulf Coast, and others going into Mexico for the winter.

If the green heron were human it could aptly be referred to as a "character." When frightened it flaps awkwardly to a perch where it often freezes in a grotesque position and clumsily takes flight when the intruder is within a few feet. When feeding, it displays true heron skill, and the illusion of stupidity created by its perching antics disappears. It is a small heron, about eighteen inches long, with comparatively short

legs. Often it is difficult to detect any green in the plumage, but in good light the adult may be seen to have a dark green crest and wings. The neck is deep chestnut color. Young birds are heavily streaked underneath and are brownish on top. Nesting is usually in single pairs in woods near water. They breed from the Gulf northward across the United States, and winter from Florida southward, some going into the West Indies, Mexico and Central America.

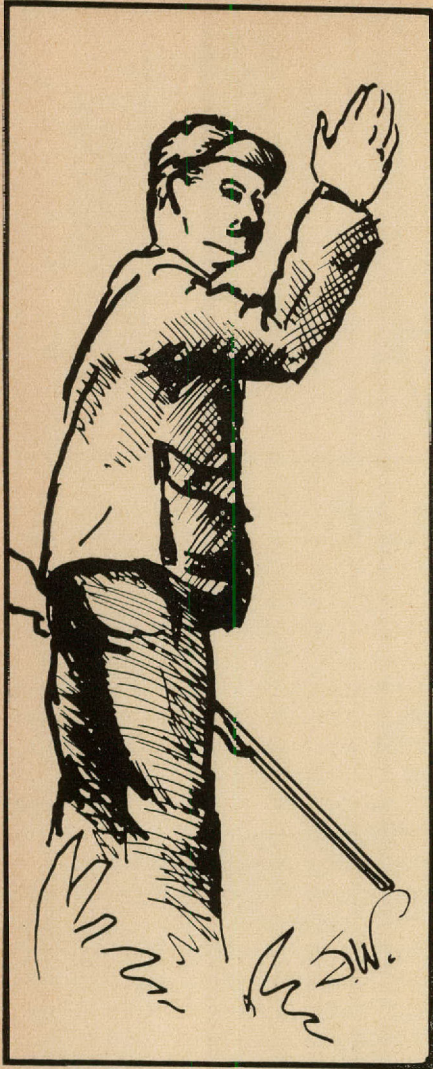
Egrets belong to the heron family too, and always give me a special thrill because of their dramatic comeback after being on the brink of extinction. For many years adults were killed for the beautiful plumes which adorn them during the breeding season. This left eggs unhatched or young birds to die in the nest. Protective laws and changing styles in women's headgear came to the rescue in the true American nick-of-time tradition, and their numbers have increased until they are common again in our part of the world. The American egret is the large white wading bird seen about lakes and streams during summer and early fall. It is next in size to the great blue heron, and can be distinguished from any other white wading bird by its distinctive yellow bill and black feet and legs. The breeding season over, these birds move inland from the coast and wander eastward. In winter they are seen along the coasts of southern states. The snowy egret is much smaller than the American egret, and is likely to be confused with the little blue heron in its white phase. It is seen inland in company with other herons from midsummer until early

fall, and in spite of any existing similarity between it and the others can be readily identified by its snowy plumage, black bill, black legs and golden-yellow feet. In some parts of the south it is commonly called "golden slippers." It is a southern bird, sometimes wandering northward in summer. The winter range is southern United States and southward.

Equipped by nature to find food chiefly in the aquatic field, the herons very often incur the enmity of sportsmen because they eat some game fish. Before condemning them for this, consideration should be given to the other food taken. They also eat rough fish, small snakes, crawfish, frogs, salamanders and other water creatures, many of which are harmful to game fish. They are as much a part of our wildlife heritage as the fish themselves, so judgment should not be passed on them lightly.

The cormorant is another interesting water bird which is seen with increasing frequency since so much water has been impounded behind dams built across our principal rivers. About three feet in length and dark in color, this bird is often called "crow duck" or "nigger goose." The long neck, long bill, sharply hooked at the end, and the feeding habits are distinguishing marks. It is likely to be seen perching on a tree over the water, its body erect and neck in an "S" shape. From this perch it dives into the water for its food, or it may dive from the surface of the water. Underwater it uses wings as well as feet in swimming in pursuit of its prey. Cormorants are found throughout North America during summer and move southward in winter.





The little pied-billed grebe has been given a variety of descriptive names by sportsmen. Most colorful of these are "hell-diver" and "didapper." His sudden disappearance beneath the surface of the water takes on a dramatic aspect as the onlooker waits for him to emerge. Reappearance is often made at an astonishingly distant point. He is a nondescript looking bird, grayish on top, with a black throat and chin, and mottled brownish underparts. His bill and feet are quite distinctive, the former being crossed by a dark band which gives the pied effect. The feet have lobed toes, which serve the same purpose as webs in swimming. Legs are placed far to the rear of the body, giving the bird a penguin-like look on land, where it is seldom seen. The pied-billed grebe is distributed throughout North America during summer, and winters from the southern United States southward.

Shallow water is the normal environment of the American coot, commonly called "mudhen." It is an easy, graceful swimmer, but I always find it distressing to watch a flock take to the air because of the noisy, laborious effort involved. After much pattering, skittering and flapping on the surface of the water they usually fly just above the water or ground. An excellent diver, it obtains much of its food underwater. This consists of aquatic plants and insects, tadpoles, snails, etc. It also feeds on grain, seeds and plants found on land where it moves awkwardly about. The dark, velvety plumage contrasts strikingly with the ivory-white bill. Other white accents on the dark bird are spots on the hind edge of each wing and under the tail. Feet have lobed toes similar to those of the grebe. The average size of the bird is about fifteen inches in length; wings are short in proportion to the size of the body. Its range is widespread over North America, with some southward migration in winter.

Another group of birds which crosses the path of the sportsman in fascinating variety is shore birds. It is among them we find the little spotted sandpiper teetering along margins of streams and lakes. This peculiarity of gait and the fact that in breeding plumage its white breast is covered with round, dark spots makes identification comparatively easy. In winter the spots are missing, but the tipping of its body persists in all seasons. It is seven or eight inches long. Breeding takes place throughout the United States and Canada, and wintering from the southern states into South America.

A larger relative of the spotted sandpiper is the upland plover, once so abundant that it was shot during spring and fall migrations with no thought given to the survival of the species. This, plus the fact that much of its breeding habitat was at the same time being put into cultivation, accounts for its reduced numbers and the consequent nostalgia felt by hunters who remember the days of its abundance. Due, perhaps, to my ostracism from the intimate sports sanctum, my feeling for the upland plover is rooted in a different viewpoint and nurtured by an appreciation stemming

from a source other than the one which evokes the emotion felt for the species by those who recall the delight they found in hunting it with guns. This feeling evolved, no doubt, from the introduction given me to the bird by my husband who remembers from his boyhood the excitement of plover hunting. That sport no longer possible, he consoled himself for its loss by listening for the birds' calls during migration, and with an occasional sight of a flock in a field.

There is an ethereal quality to be found in the sounds made by many birds, but the haunting, mellow calls made by a flock of night-migrating plover is to me the essence of the wildness which the bird itself represents. In utter disregard of the fact that it is classed as a shore bird, the upland plover feeds in plowed fields and grassy pastures rather than at the water's edge. Here they may occasionally be seen during migration, their large, buff-mottled bodies, about twelve inches in length, well camouflaged against the earth or dry grass as they move about on their long legs searching for the insects on which they feed. Migration through Texas is during April and early May in the spring and from mid-July into October in the fall. Nesting grounds range from Canada through eastern and midwestern United States. South America is the winter home of the species.

The Wilson's snipe, known to sportsmen as Jack snipe, is a familiar sight in marshes and bogs near waterways in much of Texas during the winter months. Here it probes for the mud-dwelling creatures which comprise its food with its exaggeratedly long bill, which in combination with its short legs gives the bird a decidedly comical appearance. The breeding range is northern and eastern United States into Canada. Most of the snipes move south in winter with a few remaining in the northern states. The killdeer is probably the best known of the shore birds, and is a permanent resident of Texas. Some other members of the group which are seen during migration and are interesting to observe are the yellow-legs; least, western, and semi-palmated sandpipers. Phalaropes are rather irregular migrants through some of the



state, and are mentioned because they swim as well as wade in search of food, a fact which is sure to attract the attention of the most casual observer.

A glimpse of a brilliantly hued male summer tanager set me off on a search for more information about the non-game forest and land-dwelling birds which abound in spots frequented by sportsmen. I soon found that the tanager in question is a summer resident in much of the state, arriving from the south in April and remaining until October. The female wears dull yellow instead of the vivid red plumage of the male, and the young males present a very unfinished appearance in a mingled combination of the two colors of plumage.

The pertness of tiny chickadees, trim in their gray coats with black caps and vests, and the sauciness of titmice, both permanent residents of the state, won my great admiration. The gymnastics performed by these small creatures as they search for food in tall trees has been known to confuse and distract squirrel hunters.

The brown thrasher, that goes earnestly about the task of finding food on the ground and does a fine job of pest control as he eats, is an acquaintance I recommend to everyone. This bird, because of its russet coloring and the noise it makes in turning over dry leaves in feeding, also is guilty of sometimes giving squirrel hunters false hopes.

Special pleasure lies in store for those who learn to recognize a family of beautifully marked and talented songsters—our native sparrows. While some members of the family are to be found in Texas in all seasons, it is the winter group which is most likely to attract the sportsman's attention. This is due to their presence in game territory and to their feeding habits which involve much lively motion on the ground. Some of these are the beautiful white-crowned sparrow, with his strikingly marked white and black head; the white-throated sparrow, which, in addition to the white throat which gives him his name, also has a black and white striped head; the fox sparrow which is adorned with a rust colored tail and streaks of the same color on its underparts; the song sparrow with a streaked breast which

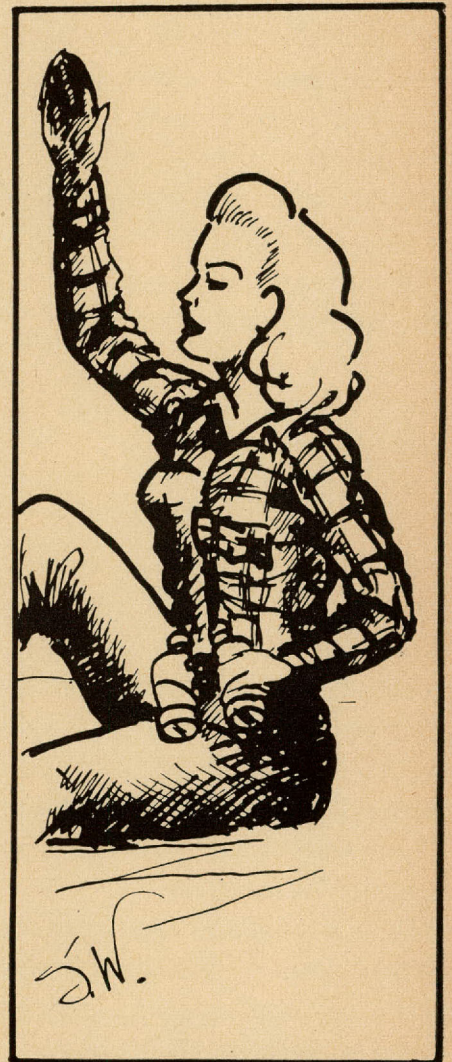
has a great blob in the center; the vesper sparrow whose tail has jaunty white feathers on each side, and the handsome Harris's sparrow which seems to be wearing a black hood and chin whiskers encircling a pink bill.

Woodpeckers are bound to enter into a sportsman's life. Some of my most unprofitable fishing moments, in terms of fish caught, have been enlivened by watching a pair of red-bellied woodpeckers feed their brood in a nesting hole made in the tall stump of an old cottonwood tree leaning over a stream. This woodpecker is about ten inches long, and has a black and white barred back and a red capped head. The smaller hairy and the tiny downy woodpeckers also have the black, white and red colors in the plumage, but have white backs instead of barred ones, and only the males wear the red head patch. The gaudy red-headed woodpecker wears the same colors, but they are divided into three bold splashes—crimson head, black wings and tail with the white spots creating a brilliant pattern of contrasts. These are all permanent residents of Texas. Winter brings us sapsuckers and flickers. Flickers sometimes abandon the customary woodpecker tree feeding technique and feed on the ground. They are exceedingly fond of ants.

Birds of prey certainly belong in any discussion of birds which concern sportsmen. To ignore them would be unrealistic. In Texas we find some thirty-six species which are classed as birds of prey. These are our vultures, hawks, owls and eagles, and of this number all except eight species are protected by law. Shooting of these birds is, in most cases, illegal as well as short-sighted. They are the natural enemies of game predators. The simple, uncomplicated reason for the killing these birds do, is hunger. It is never done in wasteful excess as is sometimes true with human hunters and fishermen. Surely no one who has watched the graceful, aerial maneuvers of an osprey, or fish hawk, as he locates his prey, then hovers on beating wings for the exactly right moment to make the dramatic plunge into the water to grasp the fish in his talons can feel that the bird has no right to the fish. He is simply satisfying the instinct of hunger as nature

intended him to satisfy it, and in doing so is acting as one of the checks and balances which are so vital to a natural working out of our wildlife pattern. Certainly any individual bird of this group which is known positively to be destructive to domestic fowls or animals should be disposed of, but their destruction for other reasons is against the best interests of sportsmen.

All of this, and more, is why it is difficult to judge the success of my husband's efforts to make a sportsman of me. Let me say that the resulting interest in our native birds has brought me many hours of pleasure, and a means of relaxation which I recommend whole-heartedly to all actual or would-be sportsmen. Look around you some day when the fish are biting slowly or the hunting is poor. You too might find there's real sport to be had in huntng with binoculars!





# WHAT IS IT?

By W. C. GLAZENER

Director, Wildlife Restoration

A RECENT issue of this magazine carried a picture of a metal "Wildlife Refuge" sign, and an explanation of the reason for erection of the sign on game areas. We cited a number of objections that developed in the course of a few years. Also, we recognized the possibility of a better marker for use around premises where the Commission is conducting some active restoration efforts.

The accompanying photograph is of a "Wildlife Management Area" sign. It is made of laminated cardboard, with a lithographed sheet glued over it, and the entire assembly then given a waterproofing coat. Properly, the sign should be mounted on a board backing to prevent wind breakage or other similar damage. It should be fastened on by using big-headed tacks or nails in each corner, at least.

As with the previously described "Wildlife Refuge" markers, these "Wildlife Management Area" signs are authorized only for areas on which the Commission has made a game transplant, or on which it is conducting a wildlife study of technical nature. In either case, the work involved is covered by a Federal Aid in Wildlife Restoration Project and a contractual agreement between the landowner and the Commission.

This cardboard sign is an experimental one. When properly installed, it should last for five years, but not longer than that. Use of cardboard relieves the demand for scarce metal and results

in a much lower cost. These markers carry no birds tempting road shooters to use them for targets. When they are shot, there is not so much damage done; the enamel finish on metal signs shatters badly.

Do the "Wildlife Management Area" signs mean "No Hunting"? Not entirely so. They indicate that the landowner has ceded wildlife rights for one or more species to the Commission. In some cases, all species are covered. In no instance should a hunter enter upon such a designated area without explicit permission from the owner. Even then, the hunter might unknowingly vio-

late terms of the owner's contract with the Commission, and be subject to legal action for such violation.

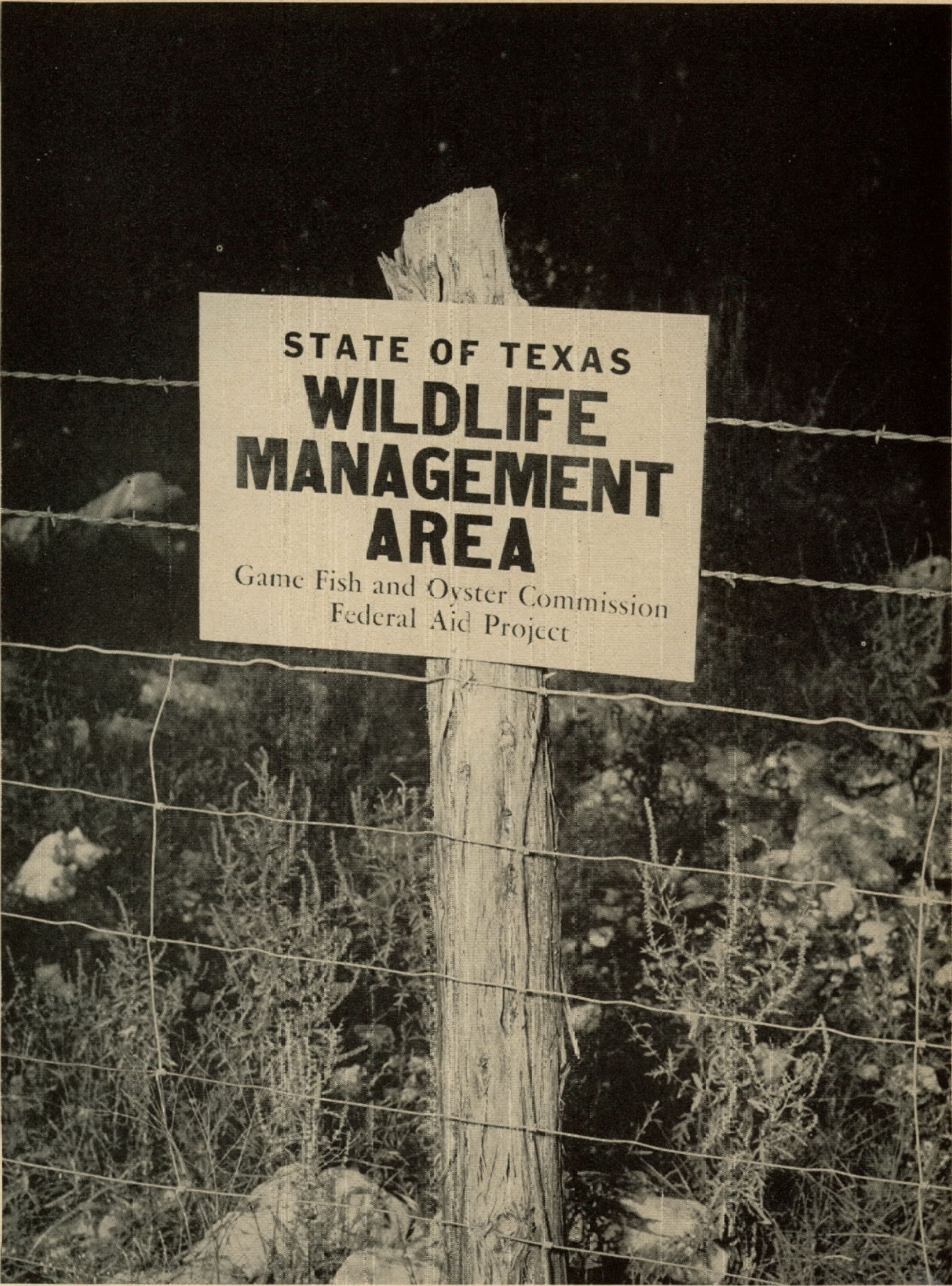
What is the public reaction to this new marker? It is too soon to tell. However, we have some reason to believe that the avoidance

of the "refuge" designation sets a little better with the hunter. If he understands the meaning of the marker, there is a higher probability that he will not shoot it to pieces; that he will observe its purposes, and benefit more in the long run.

Can just any landowner secure these markers and erect them around his premises? Not legally so. Many would like to do so, but the requirements are quite definite. Only those areas covered by a Wildlife Management License executed by the landowner and the Commission, and included in a Federal Aid in Wildlife Restoration Project qualify for such designation.

*Marker Indicates Landowner  
Has Ceded Wildlife Rights  
on Certain Species to Game  
Commission*





STATE OF TEXAS  
**WILDLIFE  
MANAGEMENT  
AREA**

Game Fish and Oyster Commission  
Federal Aid Project



# WHERE TO FIND YOUR GAME WARDEN

Game wardens and game warden supervisors have been listed with their districts and addresses for the benefit of Texans.  
Your game warden has many duties beyond law enforcement and has been trained to work with persons in his area on general wildlife subjects.

Supervisor	Warden	Address	Counties
<b>Austin Office</b>	Gene Ashby	Rt. 7, Box 213	Travis
	Paul Bogusch	Brenham	Burleson, Lee, Washington
	J. E. Ferguson	Lytton Springs	Bastrop, Caldwell
	Ben F. Gaddy	604 Josephine, Austin	Hays
	A. E. Hitzfelder	County Courthouse, San Antonio	Bexar
	F. E. Hollamon	Seguin	Guadalupe, Wilson
	J. C. Moore	4300 Ave. D., Austin	Travis
	Grover S. Simpson	5402 Sunshine, Austin	Travis
	W. F. Sumbling	347 E. Commerce, New Braunfels	Comal
	Jack White	5212 Woodview, Austin	Travis
Alton Willmann	County Courthouse, San Antonio	Bexar	
<b>Charles G. Jones</b> Box 12 Weslaco, Texas	John F. Crow	Riviera	Kenedy
	J. Thomas Daniel	Box 1444, Harlingen	Cameron
	William H. Gooch	Box 653, Raymondville	Willacy
	C. J. Hale	Port Isabel	Cameron
	John Phelps	Box 653, Raymondville	Willacy
Eugene O. Willmann	Box 87, Edinburg	Hidalgo, Starr	
<b>A. W. Lewis</b> First Floor County Courthouse Dallas, Texas	William F. Bennett	Box 307, Brady	Concho, McCulloch
	Harley Berg	2316 Lasker Ave., Waco	Coryell, Falls, McLennan
	Harold A. Bierman	419 U. S. Courthouse, Ft. Worth	Hood, Johnson, Parker, Somervell, Tarrant
	T. O. Bobbitt	Box 734, Denton	Denton
	Del W. Bowers	Box 275, San Saba	Mills, San Saba
	Chas. L. Boynton	510 W. 10th, Quanah	Foard, Hardeman, Wilbarger
	Hubert Brooks	Box 1623, Waco	Coryell, Falls, McLennan
	Joe B. Brower	Box 952, Greenville	Collin, Hunt, Rains
	Henry Brown	1st Floor, County Courthouse, Dallas	Dallas, Ellis
	W. C. Cave	2014 Elizabeth, Wichita Falls	Archer, Clay, Wichita
	Louis H. Clymer	Box 643, Lampasas	Lampasas
	Maurice S. Dry	512 S. Connellee, Eastland	Eastland, Erath, Stephens
	Floyd I. Gaby	Box 3127, Temple	Bell, Williamson
	W. A. Gentry	Box 283, Llano	Llano
	Travis M. Gilbreath	Box 163, Johnson City	Blanco
	Murrell B. Hopkins	Box 407, Kaufman	Kaufman, Rockwall, Van Zandt
	J. W. Hudson	Gainesville	Cooke, Montague
	Harry B. Everson	Box 176, Throckmorton	Haskell, Throckmorton, Young
	Clifford H. Johnson	Box 237, Meridian	Bosque, Hamilton, Hill
	Clarence Jones	Trenton	Fannin
Charles H. Lawrence	Rt. 1, Pottsboro	Grayson	
C. T. Pittman	Seymour	Baylor, Knox	
James S. Smith	419 U. S. Courthouse, Ft. Worth	Hood, Johnson, Parker, Somervell, Tarrant	
Morris E. Stallcup	1501 Fillimore, Wichita Falls	Archer, Clay, Wichita	
A. A. Stein	1st Floor, County Courthouse, Dallas	Dallas, Ellis	
F. M. Stovall	Box 153, Jacksboro	Jack, Wise	
Leon Stowe	Graford	Palo Pinto	
J. T. Taylor	Box 204, Marble Falls	Burnet	
John R. Wood	Box 223, Brownwood	Brown, Coleman, Comanche	
<b>J. H. Maggard</b> Rt. 1, Box 283-B Amarillo, Texas	G. P. Davis	Box 326, Shamrock	Collingsworth, Donley, Gray, Wheeler
	Patrick L. Donnelly	Box 149, Littlefield	Bailey, Castro, Cochran, Hockley, Lamb, Parmer
	Jess Felts	Box 727, Dalhart	Dallam, Hartley, top of Oldham
	Cecil Fox	Box 295, Spur	Dickens, Kent, King, Stonewall
	Verna G. Grady	Box 235, Lamesa	Borden, Dawson, Howard, Martin, Mitchell, Scurry
	Noel J. Head	Box 991, Seminole	Andrews, Gaines, Terry, Yoakum
	J. T. Hooten	Box 442, Stinnett	Carson, Hansford, Moore, Hutchinson, Sherman
	Johh D. Jones	Box 401, Abilene	Callahan, Fisher, Jones, Nolan, Shackel- ford, Taylor
	Chas. F. Keller	Box 2, Childress	Childress, Cottle, Hall, Motley
	Calhoun Lovelace	Rt. 2, Canyon	Armstrong, Briscoe, Deaf Smith, Potter, Randall, Swisher, lower part of Oldham
William V. Riddle	2606 40th St., Lubbock	Crosby, Floyd, Garza, Hale, Lubbock, Lynn	
Starkey V. Whitehorn	Box 126 A, Canadian	Hemphill, Lipscomb, Ochiltree, Roberts	
<b>Frank Mebane</b> Alvin, Texas	W. C. Childress	Box 181, Pearland	Brazoria
	A. F. Cook	Rt. 1, Box 82, La Porte	Harris
	R. Z. Finchum	2304 Strand, Galveston	Galveston
	C. B. Rohden	211 3rd St. N., Texas City	Galveston
	Don A. Troutt	78-d Island City Homes, Galveston	Galveston
<b>Lewis Morris</b> County Courthouse Beaumont, Texas	C. E. Beezley	Hallettsville	Gonzales, Lavaca
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# Letters

Dear Editor:

I have enjoyed your book very much during the past year, and I certainly want to continue reading it.

I have hunted some up in the state of Michigan and they have quite a bit of land on which the general public can hunt. It seems a shame that the biggest state in the Union doesn't have any good public hunting grounds. I would appreciate it if you could give me any information on how the average hunter might help in getting such a program started.

ERWIN W. SCOTT  
A & I College  
Kingsville, Texas

*(The public hunting grounds matter is one that we have considered at length for several years. We realize that it is something that would receive wide approval from many hunters, but it is also one that admittedly staggers us from the standpoint of the financial outlay involved.)*

As a state-wide program, it would be necessary to acquire public hunting grounds in each of several vegetative type regions. In the first place, such a distribution would be necessary because only through such a plan could access to the various game species be assured. Secondly, only such a distribution would meet the demands of those hunters located in various regions of the state.

For the 1950-51 season, we sold 336,543 hunting licenses. Since we do not have a universal hunting license in Texas, it follows that many other hunters operated without licenses. Therefore, we think it is reasonable to suppose that there were more than 500,000 hunters in the field for the above year. We definitely know that the number of hunters have been showing an increase each year since the close of the war in 1945.

To accommodate an average hunter in the various sections of Texas, it would take approximately 130 acres per man. On this basis, if we hoped to accommodate even one-fourth of the hunting public, it would be necessary to provide slightly more than 13,000,000 acres of land. At an average price of \$25.00 per acre, this would involve an outlay of at least \$325,000,000.00. If the present entire income of the Game Commission was devoted to this purpose, the purchase program would require 125 years for completion.

To assure adequate control and effective operation of large game areas, we suspect that a 50% increase in our personnel would be required. In addition, the Commission

would need rather broad authority to set rules and regulations for seasons and bag limits, and for conducting public hunts. Such authority is not at present so vested.

*It has been further pointed out that much of the unfenced timber land in East Texas is now, in effect, the equivalent of public hunting grounds. This evaluation is based on the rather prevalent practice of residents of that region of hunting somewhat when and where they please. If the state were to take over control of acreages so utilized, a certain amount of dissatisfaction would follow, because some of the people now hunting on such lands would be deprived of certain freedoms.*

The possibility of securing leases on hunting areas, as opposed to outright purchase, has also received extended consideration. Here again we immediately run into unwillingness on the part of landowners to make commitments that would be necessary to assure a successful public hunting program. Also, the annual cost of leasing arrangements would apparently be as high in the long-run as outright purchase. Since both programs would require a certain amount of management work to bring on increased game production, an additional cost item would need to be considered.

The foregoing discussion is admittedly somewhat generalized, but since it is based on a composite picture growing out of our investigations on a number of regional proposals through the past five years, we feel that the various points are well founded. If we may be in position to give you further information or assistance along this line, we shall be happy to have you call on us. W. C. Glazener, Director, Division of Wildlife Restoration.)

Dear Editor:

Why ruin the back page of your good magazine by pasting the address label over the reading matter and pictures. This has been going on for a long time, and is provoking to say the least when the reading matter is ruined, or the label is pasted over a picture.

Thought you might want to take steps to correct this. There seems to be sufficient blank space on which to place the label without putting it over reading matter or pictures.

G. R. MAJORS  
3851 Gramercy  
Houston, Texas

*(Thanks. We've taken the steps!)*

Dear Editor:

Enclosed is \$1.00 for my yearly subscription to TEXAS GAME AND FISH. I do not know when my time runs out and I darn sure want it every month. I enjoy all the articles, and as I'm mostly a "cat" fisherman, I especially enjoy those articles on catfish.

L. G. HOHERD  
1013 S. 43 St.  
Temple, Texas

Dear Editors:

## THE FOURTH FREEDOM

A pretty little woodland creature  
Walks without a fear;  
Wildcat, wolf, and even man,  
Give way when it draws near.

It never uses its atom bomb  
Except in self-defense;  
But if it should, all know too well  
The results would be immense.

Therefore aggressors, one and all,  
Give it the widest berth;  
And so, while others slink, it jaunts  
As if it owned the earth.

ETHEL ARNOLD

Dear Editor:

I would appreciate some information regarding swifts. About 40 of them used our chimney during the summer; however, now that winter is here, we would like to use our fireplace. Even though we think that the swifts go away by themselves, we do not want to fire up until they are gone. Can you tell me whether it is past time for them to go?

I do not leave the office until 7:00, so I cannot watch them dart down the chimney, as I do summer nights about 7:30. It gets dark here now before or by 6:00. And I never yet have been up and watching early enough in the morning to see them come out.

Thanking you and enclosing a postal card for your reply, I am

T. WESLEY HOOK  
Alvarado, Texas

P. S. Mrs. Hook just telephoned that she has a fire all laid, ready for a fire tonight. But we shall wait to hear from you before lighting it.

*(Swifts should all be gone south by this date. Go ahead and fire up. An insert of one-fourth-inch hardware cloth inside the top of your chimney will keep them out next summer and keep down flying sparks, too.)*



# Marine Fishes of Texas

## Great White Shark, Man Eater\*

### *Carcharodon carcharias*

By J. L. BAUGHMAN

Chief Marine Biologist

THIS shark is found throughout the temperate and tropical zones of all oceans, offshore and inshore, but is not plentiful anywhere. It occurs in the western Atlantic, even as far north as Nova Scotia and the Banks south of Newfoundland. To the south, it has been reported from southern Brazil.

The Marine Laboratory boat "K. T." caught three of these sharks off Port Aransas in February, 1950. For a full account of this see the March, 1950, issue of TEXAS GAME AND FISH.

White sharks are slate gray or al-

\* Abridged from Baughman, J. L., and Stewart Springer, Biological and Economic Notes on the Sharks of the Gulf of Mexico, Amer. Midl. Nat., July, 1950.

most black above, dirty white below, with a prominent black spot on the axils (armpits) of the pectorals. The tips of the pectorals are also more or less spotted with black on the lower surface. Large ones have been described as much paler or even leaden white.

It is one of the largest of sharks, apparently not maturing until 13 or 14 feet long, often growing to 16 or 20 feet and, at least occasionally, to 30 to 36 feet. The largest West Indian specimen (Cuban) positively measured was 21 feet. One of 8 feet may be expected to weigh about 600 pounds, increasing to 900 to 1,000 pounds at 9 to 10 feet, to about 1,300

pounds at 13 feet, with a recorded weight of 7,000 pounds at 21 feet.

The white shark is the man eater of legend and story. Huge, powerful and voracious, its speed and ferocity have given birth to many a tale, some of them unfounded, some of them with a solid basis of truth. Opportunities for examining the stomach contents of this species have been limited, but it is known to feed on prey as large as sea turtles, other sharks, seals and similar animals. It also consumes smaller fishes, squid, and is a scavenger of no mean ability.

The flesh is sold for food in many parts of the world.

## Wildlife & Grass

• Continued from Page 19

narrow band which follows the Texas-Mexico border to the Gulf Coast. Yearly precipitation is ten to twenty inches, most of which occurs in the summer. High winds and low humidity cause rapid evaporation of soil moisture, and droughts occur frequently.

Tobosagrass, burrograss, muhly grass, and red grama are the principal desert grasses on the hard land. Black grama, dropseed, and crowfoot grow on the sand. Most of the region is used for grazing. Management of the grazing land is very difficult because of the low rainfall and irregularity of rains.

Wildlife is generally scarce where desert grasses are the principal vegetation. Among the species which do occur are the black-tailed jackrabbit, scaled quail, prong-horned antelope, and white-tailed deer. The latter is restricted to brush strips.

The Coastal Prairie extends in a continuous band along the Gulf Coast from Texas to Florida. Most of the moisture comes as rain, the annual precipitation varying from thirty inches at the southern tip of the region in Texas to sixty inches in

Louisiana, Mississippi, and Alabama. Rainfall is well distributed throughout the year.

Principal grasses in the Coastal Prairie are little bluestem, cord (marsh) grass, brown-seed paspalum, and other paspalums. The wetter areas produce sedges, reeds, and salt-grass.

The Coastal prairie is the largest rice-producing area in the United States. Some of the native grasslands are used for grazing, and some cotton is grown. Rice fields are usually allowed to grow up in grasses and weeds for two years and then plowed for another rice crop. This type of rotation naturally limits the amount of permanent grassy cover available to wildlife.

Principal wildlife species in the Coastal Prairie are bobwhite quail, white-tailed deer, and doves. A few wild turkeys and Attwater prairie chickens occur in local areas.

Several kinds of grasses are associated with the pine forests of East Texas, where the annual rainfall averages forty-five inches or more. Little bluestem, broomsedge, paspalums, and

several of the panicgrasses grow in the openings among the pines. The principal game animals of this region are the bobwhite quail, white-tailed deer, and pine woods fox squirrel. Wild turkeys inhabit some of the bottom lands which provide suitable food and cover. The gray squirrel is found in thick stands of timber along the main streams.

In the post oak areas of east-central Texas, where the annual rainfall is thirty to forty inches, oaks in mixture with hickories are the dominant vegetation. Sweet gum and other hardwoods grow along the streams. Little bluestem, panicgrass, and broomsedge are the principal grasses in the forest openings. Bobwhite quail inhabit the areas which have adequate food and cover. The Texas fox squirrel is found in the oak woodlands. White-tailed deer occur in small, scattered areas.

Man's influence has been mentioned frequently in the discussion of wildlife in relation to soil, water, forests, and grass. The human factor in wildlife management will be considered further in the concluding article of this series, "Wildlife and Man."

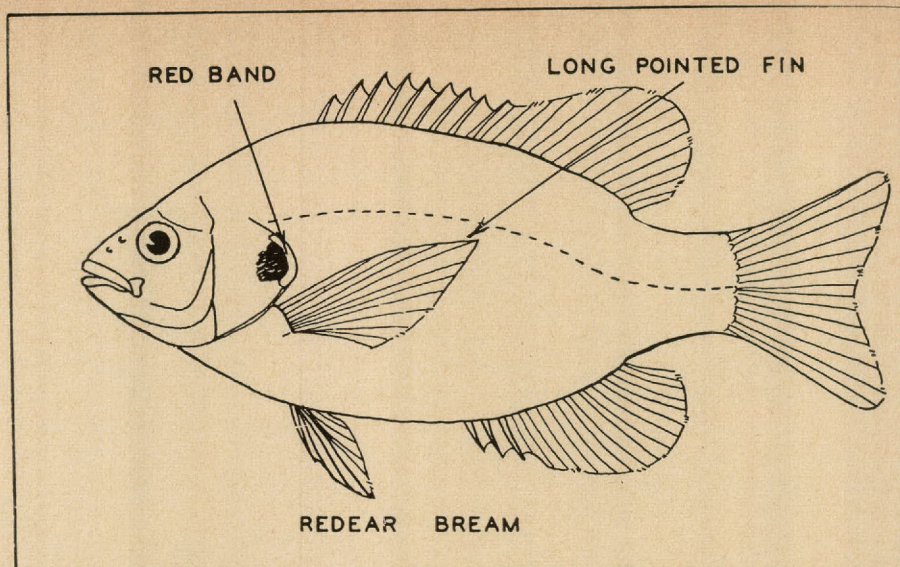


# Fishes of Texas

## REDEAR BREAM

By MARION TOOLE

*Chief Aquatic Biologist*



THESE excellent members of the sunfish family have only recently attained, by the Texas anglers, the popularity that they justly deserve. They are primarily southern fish, since they occur mainly from Florida through the other southern states to the Rio Grande of Texas; but they are also found in the Mississippi Basin to Indiana and Illinois. The redears first reached their popularity in the numerous club lakes in Northeast Texas. Members of these club lakes were as eager to fish for redears as they were for bass and crappie, and upon returning from their weekend fishing trips, they would proudly show their catches of Georgia bream and Georgia bluegills, as they called redears, to other anglers. Rival anglers who did not hold membership in the club lakes started to fish for redears in surrounding public waters and found that they, too, could catch these fine fish. The popularity of redears increased until now they are sought for throughout the waters of Texas.

Redears are shaped like the other sunfishes such as crappie, green sunfish, etc., except that the top and bottom outlines from the mouth back are equally curved and their bodies are moderately elongate. They are colored olive green, with yellow usually present on the belly. The sides, and especially the cheeks or gill covers, are mottled with brown and green. The margin to the opercular

flap is either banded with red or yellow, depending upon the sex; males have red bands and females, yellow bands. These fish have an extremely long pointed pectoral fin.

Apparently most of the waters in Texas are suitable for these fish because, in them, the fish reach a length of 12 inches and a weight of  $1\frac{1}{4}$  pounds—which may be considered large for a sunfish other than bass or crappie.

They eat crustaceans, insects and their larvae, worms, algae, some plants, snails and small clams. Probably the fact that they eat snails and clams has caused people to call them "shellcrackers," the name by which they are known throughout most of the Southern states.

Redear seem to thrive in all types of environments, since they do well in lakes, rivers and ponds; in both alkaline and acid waters; and in clear or murky water. They have been collected from mud-bottomed ponds and streams, as well as from ponds and streams having sand and gravel bottoms.

The food habits of redears cause them to stay near the bottom where they look for small clams, bloodworms, etc. Consequently, when anglers are fishing for other types of sunfish, they rarely hook a redear bream, because they fish too shallow.

There are several methods of fishing for redears which can be used

successfully. It makes no difference whether the angler prefers artificial or natural bait.

Remembering that these scrapping little fish are bottom feeders, the artificial lure addict rigs up his fly rod with light line, a small leader, a tiny trout fly and to this he attaches a piece of pork rind more narrow than a match and approximately a half-inch long. This is split in the middle. A small split shot is attached to the line as a weight. After the cast, the bait is allowed to sink to the bottom of the lake and is then retrieved with short jerks. This procedure will usually result in a strike. Once the fish is hooked, the man who is using light tackle is guaranteed plenty of thrills before landing Mr. Redear.

If the fisherman prefers natural bait, he can use either an ordinary pole and line or a fly rod, but the lighter the tackle, the more sport the angler will have. Attach a leader to the line and use either a small fly or narrow crappie hook. Put on as many angleworms as you can and leave an inch or two of the worms wiggling. Cast or drop your bait into the water and let it sink to the bottom. Leave it there for a few minutes and it is likely that the wiggling worms will attract your fish. If not, try again in a location two or three feet away.

Other good natural baits are grubs and shrimp.



# "Shoot the Works"

MANY common everyday phrases and expressions are often glibly and comfortably employed with little thought as to their antecedents or origin. Frequently these expressions endure for generations simply because of the succinct way they reduce a description into a small flavorful capsule. Present usage, however, may bear little or no relation to the original or specific meaning.

"A very fertile source of such expressions is to be found in the fields of guns and shooting," says W. G. Burckel, process engineer of the Remington Arms Company, Inc. "In the days when gun, powder horn and shot pouch were almost as necessary as pants—and often provided them—a lore came into being that colors our thought and speech to this day, adding crispness to our expressions when used in connection with matters far afield from arms and ammunition.

"Suppose we examine a couple, with comparisons of their present-day

usage and original meaning. Take the expression 'Lock, stock and barrel.' When one accepts a proposition 'lock, stock and barrel' it means that he accepts the matter in its entirety, without reservation. The expression stems from the colonial days when a gun, once acquired, was seldom scrapped or disposed of for a new one. Instead, when a part wore out or was broken, a new part was made or procured, such as the trigger and hammer assembly (the lock) or perhaps a new barrel. Therefore, when it was desired to emphasize completeness of anything, the essential parts of an essential article were itemized . . . 'lock, stock and barrel,' the whole gun.

"Today we use, in a derogatory sense, the statement 'He is "just a flash in the pan."' This signifies that the person referred to is one who makes a big fuss, is noisily enthusiastic but whose actions are inconsequential. Or it refers to an individual who accomplishes something worthwhile *once*, but only *once*. A 'flash in the pan' was much worse for the pioneer armed with a flint lock musket or rifle when he stood face to face with an angry bear or when meat for the family stood poised for flight only a few yards away. If, at such a time, he pulled the trigger and the priming

powder in the pan at the breech merely burned with a flash without discharging the gun the shooter was victim of an embarrassing, disgusting, and sometimes even tragic, experience.

"Here are a few of the common expressions of today that originated in the lingo of shooting. A little fanning of the embers of memory will undoubtedly recall many more.

"Lock, stock and barrel."

"Flash in the pan."

"Our plans 'misfired.'"

"Set your sights high."

"He scored a bulls-eye."

to "draw a bead on" something.

"Keep your powder dry."

"Don't fall short of the mark."

"Straight as a ramrod."

"He overshot the mark."

He is "loaded for bear."

"Sharpshooter."

"Crackshot."

"A shot in the dark."

"He goes off half-cocked."

"He is all primed for the occasion."

"Hair-trigger nerves."

"Hold your fire."

"Always be a straight-shooter."

to "hit dead center."

He has "lined his sights on" . . . . .

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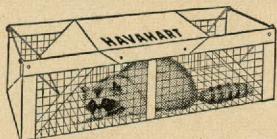
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## Ducks & the Plow

Continued from Page 12

of the buffalo became an endless sea of golden wheat, there was no place left for the ducks except the margins of the deeper lakes and there was not room even there for all of them. The result was that fewer and fewer were raised each year. Now, where once the nesting ground extended from Winnipeg in the east to the foothills of the Rockies in the west and from the southern border of Canada to the subarctic forest in the north, there are farm houses, barbed wire fences, hard roads, and automobiles but very few ducks. It was not the man with the gun who was to blame, although he helped. The man with the plow was the killer.



Season's Greetings



WOOLDRIDGE



# Merry Christmas Today

'Twas the night before Christmas,  
The hillsides were white,  
Many creatures were moving  
By sparkling starlight.

All the turkeys were roosting,  
Secure in their boughs.  
Nearby grazed man's creatures,  
The sheep, goats, and cows.

The deer quietly browsed,  
To the whippoorwill whistle,  
They were brought to "alerte,"  
By a stray cacomistle.

There was danger abroad,  
And a mountain lion prowling,  
Peter Cottontail shook,  
To the lone coyote's howling.

When suddenly high  
In the Heavens above,  
Came a soft light so blinding  
And the call of a dove.

Every creature looked upward  
And strained eye and ear,  
To see what was happening  
And make sure to hear.

The young man-thing peered  
From his crude cabin door,  
Heard faintly sweet music  
And listened for more.

Then the voice of the Master  
Came out of the light  
Saying, "Listen my loved ones,  
I greet you this night.

May there be peace among you  
When dawn brings tomorrow.  
Be ye gentle and kind,  
And to nothing bring sorrow."

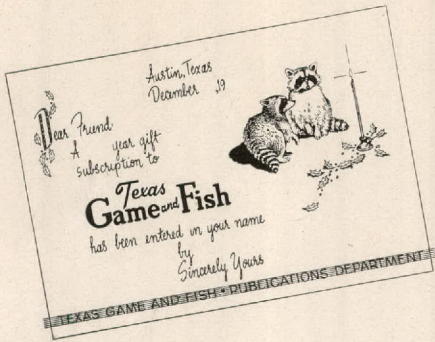
Then the sweet music faded,  
And the light seemed to pale,  
Creatures stirred on the hillsides,  
In meadows and vale.

As they passed by each other  
With dawn on its way.  
They spoke in their language,  
"Merry Christmas today."

—By T. D. Carroll







Remember your friends at Christmas time with TEXAS GAME AND FISH, the perfect gift for those who like the out-of-doors.



TEXAS GAME AND FISH is still only \$1.00 per year, so give that hunter or fisherman friend the one magazine that every Texas sportsman needs. Attractive announcement cards (pictured above) are sent around the middle of December to those who are to receive the magazine as Christmas gifts.



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