

Texas Game and Fish

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THIS BADGE IS A SYMBOL OF FRIENDSHIP.
It identifies your game and fish warden.

Today he is more than a seasonal game law enforcement officer. He has been, or is being, transformed into a year-round wildlife conservation officer who wears this badge with pride, because he is upholding a cause in which millions are vitally interested.

As a law enforcement officer, the wearer of this badge subjects himself to the chills of winter and the heat with its mosquitoes in the summer, to preserve that wildlife which the public owns and enjoys. Many other duties come within the obligation of this officer. He is constantly endeavoring to sell the Game Department's conservation program by discussing the value of the State's wildlife resources with individuals and at public gatherings; helping with wildlife surveys or advising landowners how they can manage their land to produce more wildlife. Many wardens carry out systematic programs in schools, promoting wildlife

conservation and good sportsmanship.

Every effort is made to select men to wear this badge who will be a credit to the community where they reside. Their backgrounds are thoroughly investigated, and every effort is made to select men who will conduct themselves as gentlemen and good citizens.

After an applicant is selected as a potential game and fish warden, he is given a four-month course at Texas A. & M. College, under the tutoring of the best talent available in the field of game law enforcement and wildlife management. Twenty students are now in training at Texas A. & M. who, when they successfully complete this course, will be assigned to specific areas over the State and take their places among you as citizens and public servants.

Know your warden! Ask him to help you with your wildlife problems. The name and address of YOUR game and fish warden is included in the list on page 23.

Earl Sprott, Director, Law Enforcement

Texas Game and Fish



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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.

February, 1957

Vol. XV, No. 2



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The Cover

The Duck Hawk is one of the fastest flying birds in the world and one of the most skillful on the wing. Possessing unexcelled courage, they are the aristocrats of the air. Their diet consists primarily of birds which they capture in flight. Many rodents are eaten also, as well as some insect forms. They range throughout the mountainous portions of the U. S. and Canada and winter southward to Mexico and Central America.

Water Shortage—A Texas Crisis

Sportsmen Meet With Resources Committee

THE PUBLIC HEARINGS conducted by the Texas Water Resources Committee in Austin on December 28-29 confirmed several well-known facts, namely:

1. Texas is faced with an acute water crisis.
2. A coordinated effort, amply financed, is needed to meet the crisis.
3. Nobody likes to be taxed, but the financial responsibilities of securing an adequate water conservation program should be shared equally by all who stand to benefit from the program.

The heat generated at the outset of the hearing could have been expected with the meeting of an aroused group of sportsmen and boating enthusiasts who felt their rights were being encroached upon and a conscientious Water Resources Committee which was faced with the unpleasant but necessary job of finding ways and means to finance its program of conserving Texas' water.

The Committee's original proposal to increase hunting and fishing licenses fees, with the increase earmarked to finance the water program, met with concerted disapproval by all the sportsmen's clubs represented.

Mr. Bob Taylor, representing the Bayshore Rod, Reel, and Gun Club of Baytown, made it clear that his group was violently opposed to the Committee's proposal. Mr. Taylor said that they had no objection to being taxed as hunters and fishermen if the tax was used to improve hunting and fishing, but that they did object to being taxed, as a specific group or class, for the benefit of an entirely different group.

Mr. Charlie Haas of Corpus Christi, President of the Laguna Madre Fishermen's Association, said that his group felt the proposal by the Committee was discriminatory. He expressed the interest of the Fishermen's Association in the conservation of all natural resources but asked that hunting and fishing licenses fees be left with the Game and Fish Commission.

Mr. Haas pointed out that Texas had forfeited the use of some one million dollars in Federal aid money over a six-year period because the Game and Fish Commission lacked funds to meet the Federal requirements. Under the existing program, the eligible states must put up one dollar to receive three dollars of Federal aid.

Excise taxes on sporting arms and ammunition and sports fishing equipment are paid by all Texas sportsmen. Mr. Haas pointed out that these excise taxes are the source of the Federal aid money and that Texas' failure to use its allotted share of these funds represented a direct loss to the State's sportsmen.

Mr. Haas also explained that, under the existing Federal law, Texas would become ineligible to participate in the national program if money received from the sale of hunting and fishing licenses was diverted to any usage other than wildlife conservation. He called on Mr. W. J. Cutbirth, Assistant Executive Secretary of the Texas Game and Fish Commission, to verify his statement.

Mr. Cutbirth also offered the information that whatever the Water Resources Committee might gain from the increased hunting and fishing licenses fees would be lost twofold by Texas sportsmen if Texas were no longer eligible for Federal aid benefits under the existing Pittman-Robertson and Dingell-Johnson Programs.

Among the other sportsmen club representatives appearing before the Committee were Mr. J. K. Burr, Anglers Club of San Antonio; Mr. Herbert Cole, Gulf Coast Rod, Reel, and Gun Club, Beaumont; Mr. George Camp, Sabine-Neches Sportsmen's Club, Port Arthur; Mr. Bob Young, Houston Sportsmen's Club, Harris County; and Mr. J. W. Hassell, Jr., Dallas Hunting and Fishing Club.

The Committee's proposal to place a 5 per cent excise tax on pleasure boats and motors ". . . sold, dis-

tributed or used in Texas," was opposed by a large number of boat dealers who had selected Mr. Bill Gaston of Austin to act as their spokesman.

Their opposition was based on several contentions, among them that:

Boat users do not consume or destroy the water they use in their boating activities.

Pleasure boaters in marine waters would be taxed but would receive no benefits from fresh water impoundments.

Excise taxes would result in a decreased boat and motor sales and would probably discourage new industry from coming to Texas.

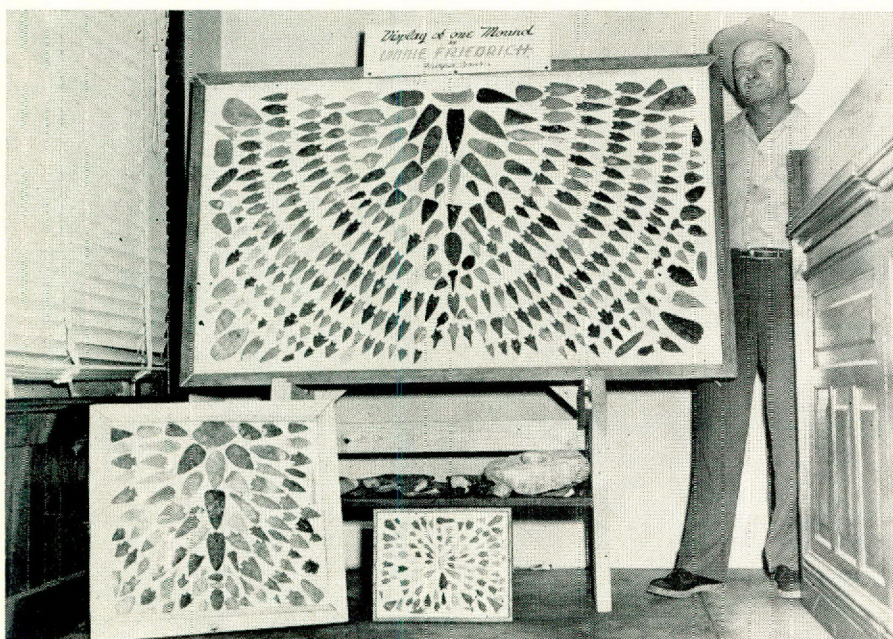
The boat dealers further contended that boat owners, as a group, should not be saddled with the chief responsibility of financing a statewide water conservation program.

The consensus of those appearing before the Committee was that none of them objected to paying their share of the cost of solving Texas' water problems. Most of them felt that some kind of a users tax or fee would be the most equitable and most acceptable way to solve the financial problems of the water conservation program.

After making sure that all who desired to appear before the Committee had been heard, the Chairman, Senator George Parkhouse of Dallas, entertained a motion that action be deferred on both proposals until other possible sources of revenue could be probed for practicability. The motion carried unanimously.

Senator Parkhouse said that he personally favored a water use fee and felt that in addition there were possible dedicated portions of the General Fund that might be used to meet the present emergency created by the water shortage.

He asked the Press to express the Committee's appreciation to all those who had indicated an interest in the Committee's work.—Theron D. Carroll. **



Artifacts

Editor:

All of the Indian artifacts shown in the enclosed photo were uncovered by my family and myself in a single mound near here—515 pieces that are in perfect condition.

Lonnie Friedrich
Rt. 2, Box 107
Fredericksburg, Texas

Galveston Buzzards

Editor:

I am writing regarding Mr. Briscoe's comment in the November issue that he has never seen a buzzard on Galveston Island.

I have lived in the Freeport area since 1941 and have never seen a buzzard on hunting or fishing trips from San Luis Pass to the San Bernard River.

I have two ideas which may account for the lack of buzzards along the coast. One is that buzzards find their food by sight and to some extent by scent after locating their meal. The salt mist from the surf may very easily interfere with the birds' sense of smell.

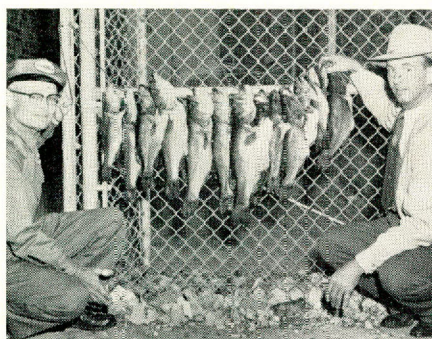
Second, buzzards and seagulls both are scavengers. Considering the high population of gulls and remembering the law of "survival of the fittest," buzzards probably would starve to death on the beach!

F. E. Blackstock
Lake Jackson, Texas

Inks Lake Bass

Editor:

This string of black bass weighed 45 pounds—an average of better than



three pounds each. The largest was seven pounds, the smallest two.

They were caught on Chuggers and Swimming Minnows in Inks Lake by Bob Fredericks and J. D. Conlee of Taylor.

We think fish like this prove that the ideas and the work done by Ken Jurgens, Commission biologist for the lake, are paying off.

Bill Kenedy
Outdoor Editor
Taylor Daily Press
Taylor, Texas

Taylor Daily Press photo

Texas Elk

Editor:

The first legal kill of a Texas elk in modern times was made by A. D. Mc-

Nabb, Dallas attorney, this fall. The three-year-old elk was a bull with ten points, and it weighed approximately 600 pounds.

This was one of a small herd of elk, consisting of six bulls and three cows, which we have on our ranch near Mount Pleasant in Titus County. Our foundation herd of one bull and one heifer was purchased from the U. S. Fish and Wildlife Service. They seem to be doing exceedingly well in North-east Texas.

Jack Langston, Sr.
3700 Elm Street
Dallas 26, Texas

(The Game and Fish Commission has special regulatory responsibility for certain game laws in Titus County. The elk hunt was held on the Langston ranch under this authority after the owners requested legal clearance to reduce the number of bulls.)

Law Clarified

Editor:

I would like to know the legal ruling on a situation such as this:

A hunter shoots a deer on property he has leased. The deer manages to cross a fence onto another landowner's property then drops dead just beyond the fence. If the hunter leaves his gun behind, can he cross the fence and retrieve his dead deer without violating the "trespass law"?

C. C. Miller
Route 9, Box 171
Fort Worth, Texas

(The trespass law says in part "It shall be unlawful for any person to enter upon the inclosed land of another without consent of the owner, proprietor or agent in charge thereof, and therein hunt with firearms or therein catch or take or attempt to catch or take any fish from any pond, lake, tank, or stream, or therein camp, or in any manner depredate upon the same . . .")

(Under strict interpretation of this law, the action you described probably would make the hunter liable to conviction for trespass. However, if there was clear indication that the deer had crossed the fence after being shot, it is doubtful that any warden or landowner would file a charge. A sort of "unwritten law" gives a hunter the right to cross a fence to retrieve a dead deer, and when this right is not abused by hunters, landowners usually are willing to grant hunters this common sense privilege.—E. M. Sprott, Director of Law Enforcement.)



Bigmouth Buffalo

Editor:

This is a photo of a 54-pound buffalo caught by Wm. G. Breazeale in a small farm pond on the Breazeale home place eleven miles west of Crockett.

Six or seven buffalo and carp were put into this pond in 1921. This fish is the fifth one to be taken out of it, and one more has been seen in the pond.

I would like to know the age and size reached by buffalo fish.

J. W. Henry
Crockett, Texas

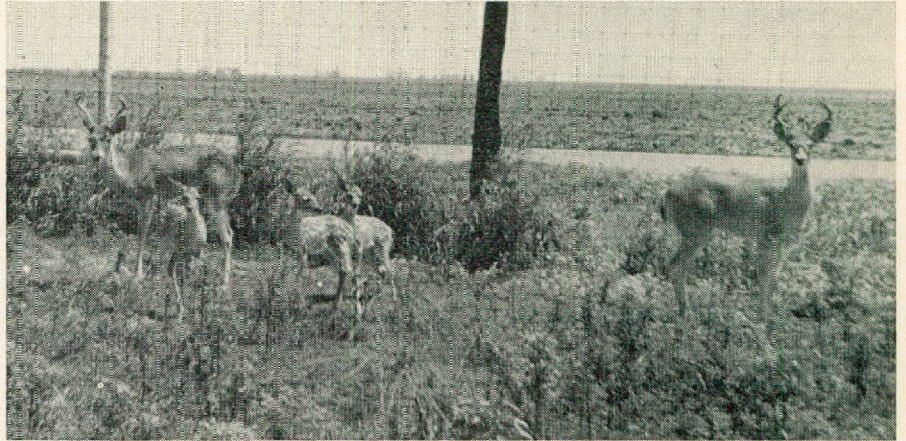
(Not being able to see the fish in the live state, it is difficult to give an exact answer to your question. In all probability this is a bigmouth buffalo. There is a bigmouth buffalo (*Ictiobus cyprinellus*), commonly called blue rooter, which reaches a maximum weight of 80 pounds; and a small-mouth buffalo (*Ictiobus bubalus*) or razor back, which will reach a maximum weight of 40 pounds.—Bob Meyer, Supervisor, Conservation-Education.)

Short and Sweet

Editor:

Your magazine is getting better and better. Keep it up.

Jess J. Laas
211 John Page Drive
San Antonio 1, Texas



Prolific Doe

Editor:

A single white-tailed doe deer produced the five offspring in the enclosed photo in just over a year. The triplets are one month old. The twin bucks are 13 months old.

Note that the yearling bucks have antlers of six and eight points.

Could you tell me how often triplet white-tailed deer are born in the wild?

These deer were born in captivity under my father's game breeders license.

David A. Schmidt
Rt. 2, Box 42
Taft, Texas

Nutcracker

Editor:

For a long time I have been trying to learn how crows eat pecans. I was never able to get a satisfactory answer from anyone who had actually seen them do it. Then recently I talked with E. J. Thomason, McGregor, and Tull Johnson, Valley Mills.

According to them, the crow holds a pecan with one foot on a firm base in a tree, preferably in a fork or crotch. Four or five pecks with his beak is sufficient to open the shell. They say they have seen it done so many times it ceases to be interesting, and they laugh at other ways people presume are used by crows to eat pecans.

It is their opinion that crows take more pecans than squirrels do and that a blue jay can open pecans quicker and easier than a crow can.

C. R. Allen
P. O. Box 1402
Corpus Christi, Texas

(Game Commission biologists say that possibly this method is correct, as they have no evidence otherwise.)

(The number of fawns brought forth by a doe deer is greatly influenced by her physical condition. This is the reason why, in overpopulated areas where the food supply is short, a large number of does may not produce as many fawns as produced by a smaller number of does in an area where the food supply has not been depleted. Malnourished does are more apt to produce single fawns or no fawns at all, although twins are usual for normal does.

(The birth of triplet fawns is not rare in the wild, but it is somewhat unusual.—Al Springs, Biologist, Wildlife Restoration Division.)

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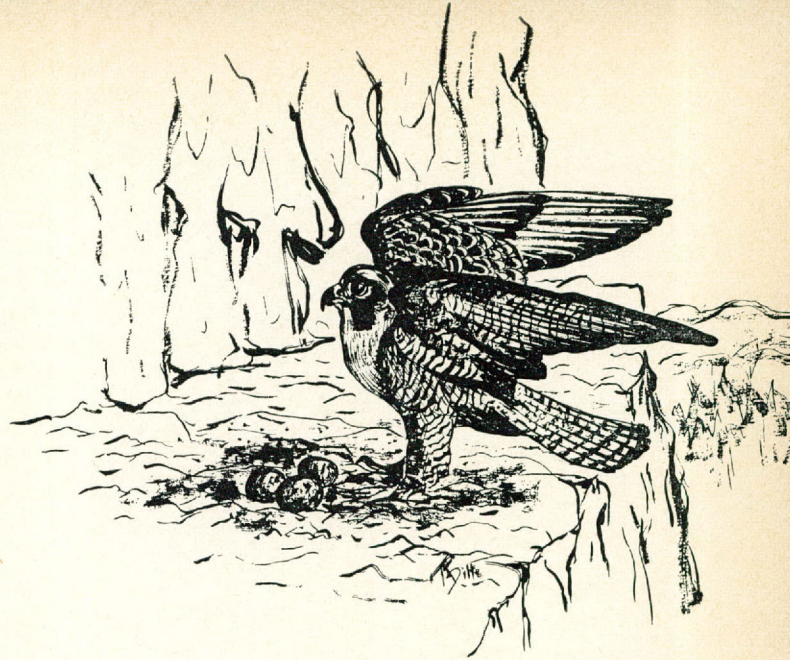
City, State

The exceptional speed of the duck hawk, in flight and in turning, makes it difficult for his prey to escape.

Sky Pirate

By WILLIAM S. JENNINGS

Assistant Director, Wildlife Restoration



Tom Diltz

THE DUCK HAWK, known to ornithologists as *Falco peregrinus anatum*, in the minds of all who truly know him, is the finest bird that flies. His scientific name is ideally suited—*Falco*, a falcon; *peregrinus*, wandering; *anatum*, of ducks. *Falco*, meaning a falcon, does not do full justice to his skill. On the wing, he is tops with a skill and power of flight which is unmatched. His wandering nature carries him over much of the earth's surface. *Anatum*, meaning of ducks, does not cover all of his exploits since he is known to feed on many different species of birds as well as a large number of rodents.

In the western hemisphere he nests from the northwestern part of Alaska, Northern Mackenzie across to Western Greenland and south as far as Central Lower California, Central Mexico, the central portion of Western Texas, Missouri, Indiana, Pennsylvania, Connecticut, Northern Alabama and the mountainous regions of North and South Carolina.

During the winters when snow and ice in the northern region pushes his avian food supply southward and covers his rodent foods, he joins the bird migration, wandering their flight lanes in search of food. These wanderings carry him as far south as the West Indies, Panama, Southern British Columbia and many other parts of South America.

In size, the duck hawk is small compared to a red-tailed hawk. Its average length will run somewhere between 15 to 20 inches. Its wing spread, from 38 to 40 inches. The female is always much larger and stronger than her mate. Both sexes have a blackish-gray head with a black patch beneath the eye which extends to the throat, providing a distinctive mustache effect. The underside of the body and breast is a light gray or light cinnamon buff on the female. A deep slate-blue back gives the duck hawk the look of wearing a tux with tails.

Unlike the more common larger hawks, which have large round-tipped wings, the duck hawk's wings are long, narrow and sharply pointed. This type of wing

allows and enables his spectacular aerial gymnastics.

Mr. and Mrs. Duck Hawk usually select a cliff or rocky ledge on which to build their nest and raise their family; however, they also use deserted nests of other hawks or owls in trees, or the ledges of tall buildings in the heart of large cities for nesting sites.

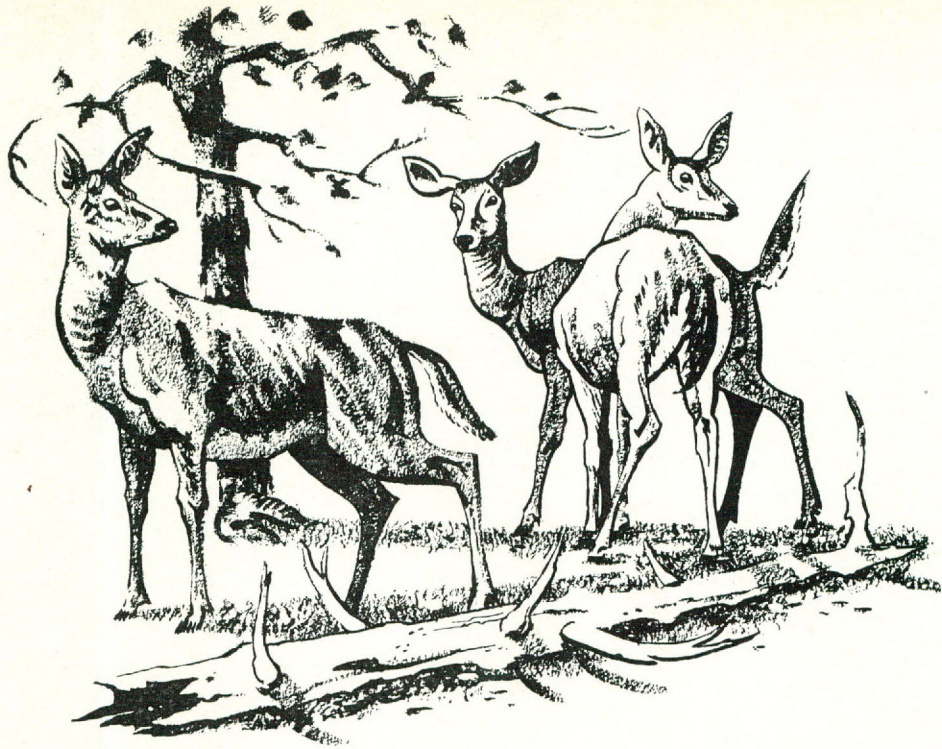
The nest may be a collection of sticks and twigs or merely the bare rock of high cliffs. The eggs are usually laid in late April, May or early June and usually number from three to five. When the young are hatched the parent birds are kept busy catching food and teaching them the art of mastering the supreme flying skill of the parents.

By September the young are ready for migration. The adult male has journeyed off by himself by this time, leaving the female to teach all of the tricks of catching food to the young. Excellent skill in the chase comes only with much practice. Young often miss repeatedly before finally capturing their prey.

Hunting tactics vary considerably but the most spectacular method is the accelerating dive from high overhead. In such dives the duck hawk has been known to attain a speed of 180 miles per hour. After climbing to a height of as much as 2000 feet, the duck hawk circles watching for flocks of birds far below, or glides swiftly across the land seeking his prey. Upon selecting his prey, he noses over in a steep dive, and with quick beats of his half-closed wings he plummets downward at blinding speed. As the falcon reaches the level of its prey, it levels out and approaches its target from directly astern. It strikes the prey with its talons with tremendous force. As the prey falls to earth, the falcon closely follows it down, feeding on it after it hits the ground, or picking it up and carrying it to a safer place to feed.

Sometimes the attack comes from below or from a direct chase from astern. Often ducks are captured by a falcon flying only a few feet above the ground and pulling up sharply into the flock as they pass overhead.

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A public hunt on the Engling Management Area proved an unforgettable experience.

Doe No. 1361

By LEIGHTON B. DAWSON

Illustrated by Clay McGaughy

THIS IS THE STORY of Doe No. 1361. The time is November 20, 1955. The place is the Gus Engeling Wildlife Management Area near Palestine, Texas. The person is me. I'm a hunter.

But wait a minute. Before we get started, let's go back to where the story really begins. Actually, the story starts back in 1949, when the Game Department released a few deer on a Wildlife Management Area, then unnamed, near Palestine, Texas. One of these deer was Doe No. 1361.

Up 'til 1949, there had not been any deer to speak of in this area for many years—they had all been killed out long ago.

What happened following the year 1949, when they released those deer is not generally known. And all I know about it, myself, was what happened to me on the morning of November 20, 1955.

The occasion was a special one-day deer hunt, sponsored by the Game Department. I was one of 40 who

received a special permit to hunt on that day. We had been selected by a drawing of applications we had submitted to the Game Department.

Frankly, I was skeptical of the hunt. I live in Corsicana, which is not too far from this Engeling Area, and I, for one, had never heard of any deer being down there. And I usually hunt deer somewhere every year, too.

But deer 30 miles from Corsicana? Practically right under my own nose? Ridiculous!

Nevertheless, here I was on the morning of November 20th, getting ready to hunt deer, just a few minutes from home. Why, I easily could have spent the night in my own bed, gotten up and had plenty of time to get there. But to make it seem more like a deer hunt, I did go down the day before, with some of the others from Corsicana, and camped out over night—using the very excellent facilities afforded on the Area itself. There were four of us—David Ralston,

Lonnie Beasley, Silas Fry, and myself. That made a domino game, whether we got any deer or not. But let's get back to the deer hunt, because now it's the next morning, and time for the hunt.

The Gus Engeling Wildlife Management Area is about 10,000 acres of deep woods, and black as Egypt at 6 A.M.—the hour we were supposed to be at the Area headquarters. As Silas and I sped through the woods that early morning in his pick-up, I could not help wondering if there were really any deer in that inky void that flowed by us on either side.

When we got to the headquarters building, the rest of the 40 hunters were already there, to draw for stands and get instructions. The drawing was conducted by E. G. Marsh, wildlife biologist in charge of the Engeling Area hunt, and he explained to us that we could kill either a buck or a doe.

"A doe?" I thought, "What kind of a deer hunt is this anyway, killing does?"

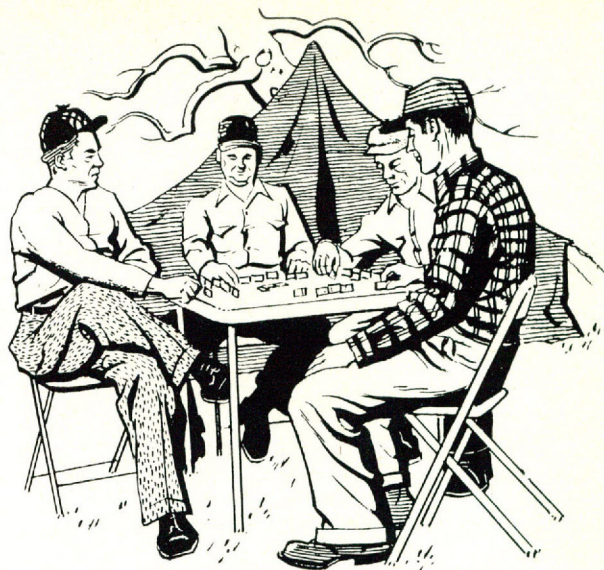
Mr. Marsh must have read what was in my mind, because he went on to say that this was the idea of the hunt, to harvest the surplus deer, if possible.

However, when the full significance of this dawned on me, I really had to pinch myself.

Here I was within a relatively short distance from home, hunting deer, on a game preserve, and being told by an official of the Game Department that it would be perfectly legal to kill a doe! Oh well, it all seemed sort of unreal, anyway.

Mr. Marsh went on to brief the group on the rules of the hunt. Each hunter would be escorted to his stand where he was supposed to stay until he got a deer (or got tired). Shooting hours were the regular hours in effect everywhere. If a hunter got a deer, he was supposed to wait until at least 9 A.M., so as not to disturb any other hunter, and then fire twice in rapid succession.

Of course there were other rules, too. If a hunter got sick, or hurt, or in case of any other emergency three shots were to be fired in rapid succession. This could be at any time. We were told further that if and when a deer was killed, it was to be brought to



There were four of us—that made a domino game, whether we got any deer or not.

the headquarters building to be cleaned. The Game Department biologists wanted to study the "innards" of the deer to see what it had been eating, or maybe what had been eating on it. Also to check the condition of the deer.

This rule about bringing the deer in to be cleaned appealed to me a lot, because I thought I was going to get out of cleaning my deer. I found out later, though, that my interpretation of this rule was slightly in error. The deer was to be brought in to be cleaned, all right—but by me.

I drew Stand No. 33. One of the men with the Game Department told me two deer had already been killed from that stand, on two previous hunts that year of a similar nature. That was hard for me to believe, based on what I knew (or rather what I didn't know) about hunting in this area. Anyway, I was still from Missouri—I had to be shown.

I was assigned to Truck No. 7, to be transported to the hunting grounds. A Mr. Price was the driver, and

● Continued on page 28



As we drove through the woods, I could not help wondering if there were really any deer in that inky void that flowed by us on either side.



A king-sized string of croakers is this man's reward for 2½ hours of fishing.

Photos by Patricia Pew

Two on a hook . . .

Fish by the bucketfull . . .

Fishermen's dreams came true at Rollover Pass

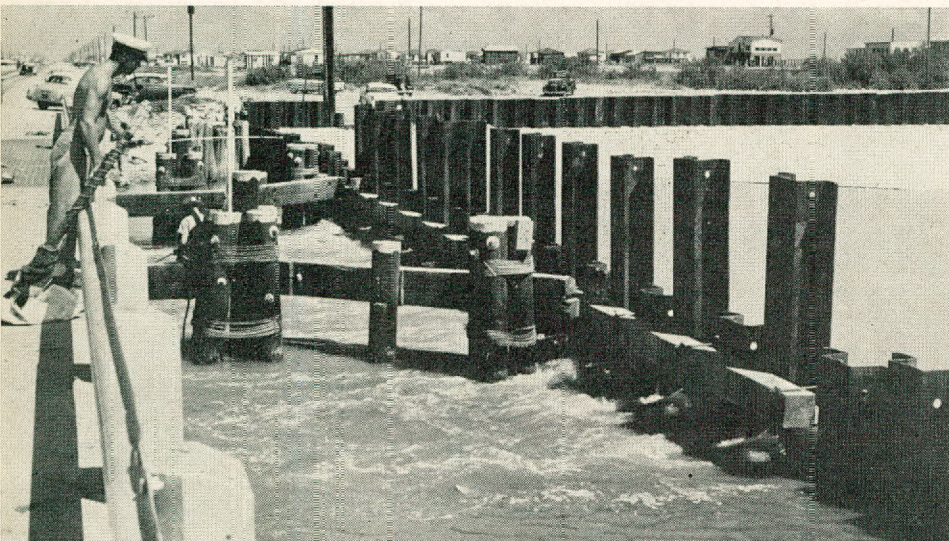
Croaker Harvest

By CARL BERGLUND, Marine Biologist

IN THE LATE SUMMER of last year a situation arose that surpassed even the wildest dreams of the croaker fisherman. The croaker, which is one of the most common fish of the Texas coast, has the habit of migrating from the shallow coastal bays and entering the Gulf of Mexico to do its spawning. When the croakers of East Galveston Bay begin their trek to the spawning grounds, they apparently chose Rollover Pass as their exit.

Ever since its creation in January, 1955, Rollover Pass, located at Gilchrist, Texas, has offered coastal fishermen many delightful surprises with its unpredictable variety and productivity. The pass, a man-made opening connecting East Galveston Bay with the Gulf of Mexico, offers a passageway to fish and other marine inhabitants whose life habits require a migration to and from the Gulf. Tidal differences in East Bay and the Gulf cause a constant exchange of water through the opening. Although Rollover Pass was opened by the Game and Fish Commission primarily to improve fishing in East Galveston Bay, it has become more famous for the phenomenal fish catches made in the cut itself. Trout, redfish, flounder, croaker, and many other species of coastal food fish are caught by many thousands of fishing enthusiasts who visit Rollover.

The croakers might have reached their destination unmolested, if it had not been for the bulkhead that was constructed across the pass to help prevent erosion, and which partially blocks the cut. This bulkhead caused the croakers to bunch up and mill around on the bay side of the pass. Discovery of this multitude of fish congregating in such a confined area set off fishing activity which has probably never been equaled in Texas fishing history. People lined shoulder to shoulder along the banks of the pass, and many took the dangerous risk of fishing from the highway bridge. At the height of this croaker run, the number of fishermen grew to such proportions that fishing was sometimes done in shifts.



The bulkhead across Rollover Pass which slowed down migrating croakers and gave fishermen a wonderful opportunity.



Crowded, maybe. But they're all catching fish, above. Multiple catches, right, were not unusual. This fisherman uses four hooks, and often catches two or more fish at one time.



As one fisherman would be removing a fish from his hook, his "replacement" would take his place. This eliminated time lost by removing fish and baiting hooks, and gave more people an opportunity to try their luck.

Almost any type of fishing tackle imaginable could be seen in use at Rollover. Handlines, cane poles and rods and reels with from one to four hooks on each line were used by this enthusiastic crowd. Kinds of bait used included live and dead shrimp, but the cannibalistic croakers didn't hesitate biting on a portion of one of their dead brothers. Many fishermen who used multiple hooks on their lines were able to hook two or three croakers at a time.

Due to the crowded conditions and wild casting on the part of some, many fishermen became hooked as their neighbor made a careless cast. More than one fisherman came away from Rollover with a better insight as to how a fish feels when he gets hooked.

The story is told down at Gilchrist about a man who

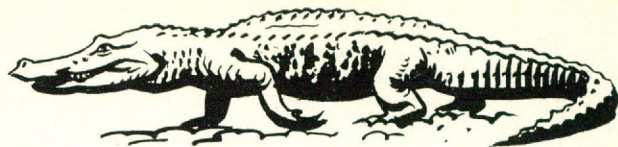
drove his pick-up truck across the bridge which spans Rollover Pass. The story goes that the man's dog which was riding in the back of the truck was hooked and jerked into the water by an extremely enthusiastic woman fisherman as she made a cast. It is not known if this tale is entirely so, but the author witnessed one man hook a Greyhound bus—it got away.

Although no accurate records were kept of the total fall catch at Rollover, it has been estimated that over 300 tons of croaker were taken by this army of fishermen. As can be seen in the illustrations, literally carloads of fish were hauled away from the pass. In fact, so many people from the area around Rollover caught fish that it affected commercial fish prices, and many of the local fish houses felt the sting.

Despite the hazards of flailing hooks, snarled lines, and occasional temper flare-ups over "who got my place," thousands of fishermen braved the crowds to get their share of the harvest from remarkable Rollover Pass.

Cars returned with literally tubs of fish, below. The wait, right, was sometimes a long one, as the cars lined up for the Bolivar Ferry (in the background) to take them from Bolivar Peninsula to Galveston Island.





The second of a two-part bibliography

Sources of Information

Compiled by JEAN RICHMOND

Illustrated by Clay McGaughy



This is the second part of a two-part bibliography which is designed to be of assistance to you in finding the answers to many of your questions on various forms of wildlife. The list of books was compiled from information sent in by recognized authorities in their various fields.

Many of these books can be found on home bookshelves. Others may be found in local public or school libraries. In some cases the County Agent might be able to furnish the reference material.

In instances where information cannot be obtained elsewhere, the Extension Division at Texas A. and M. College, Dr. E. P. Cheatum at Southern Methodist University, or the Entomology Section of the Texas State Department of Health, Austin, may be able to provide information in their respective fields.

A brief digest of the books listed is also included to help in the selection of the book best suited for answering your questions.

Books on Fresh-water Shellfish

THE MOLLUSCAN FAMILY PLANORBIDAE. F. C. Baker; University of Illinois Press. (1945) A discussion of a group of fresh-water snails which have a more or less flattened shell.

THE LYMNAEIDAE OF NORTH AND MIDDLE AMERICA. F. C. Baker; Chicago Academy of Science. (1911) Discusses the very common air breathing snail having an elongated spiral shell.

THE FRESH-WATER MOLLUSCA OF WISCONSIN. Parts 1 and 2. F. C. Baker. Bulletin 70, Wisconsin Geological Natural History Survey. (1928) Part 1 contains a discussion of the Gastropoda, a group comprising most of the existing forms of land snails having a univalve shell and some of the shell-less forms. Part 2 concerns the bivalves (those forms having two shells such as the mussels and clams) which cover a number of our native forms.

LAND AND FRESH-WATER SHELLS OF NORTH AMERICA, Parts 2 and 3. W. G. Binney. Smithsonian Miscellaneous Collection Nos. 143, 144. (1865) The book is very old but helpful.

LAND MOLLUSCA OF NORTH AMERICA (north of Mexico). Vol. 1, Parts 1 and 2. H. A. Pilsbry. Philadelphia Academy of Natural Sciences. (1939-1948) This is the best thing out on land snails, according to Dr. Cheatum. A useful reference for professionals and amateurs.

A PRELIMINARY LIST OF THE LAND, FRESH-WATER AND MARINE MOLLUSCA OF TEXAS. J. A. Singley. 4th Annual Report, Geological Survey of Texas, Part 2. (1892)

LAND AND FRESH WATER SNAILS OF TEXAS. J. K. Strecker. Texas Academy of Science, Vol. 17. (1935) General discussion of those forms of snails found in Texas.

FRESH-WATER SHELLFISH		Cheatum*
THE MOLLUSCAN FAMILY PLANORBIDAE THE LYMNAEIDAE OF NORTH AND MIDDLE AMERICA THE FRESH-WATER MOLLUSCA OF WISCONSIN F. C. Baker		*
LAND AND FRESH-WATER SHELLS OF NORTH AMERICA (Parts 2 and 3) W. G. Binney		*
LAND MOLLUSCA OF NORTH AMERICA (Vol. I, Parts 1 and 2), H. A. Pilsbry		*
A PRELIMINARY LIST OF THE LAND, FRESH-WATER AND MARINE MOLLUSCA OF TEXAS (Part 2) J. A. Singley		*
LAND AND FRESH-WATER SNAILS OF TEXAS (Vol. 17) J. K. Strecker		*

*Dr. E. P. Cheatum, Chairman, Department of Biology, Southern Methodist University.

Books on Birds

A FIELD GUIDE TO BIRDS, 2nd Ed. Roger Tory Peterson. Houghton Mifflin Company, Boston, Mass. (1947) Handbook-type book for identification of birds throughout the country. Illustrated.

A FIELD GUIDE TO WESTERN BIRDS. Roger Tory Peterson. Houghton Mifflin Company, Boston, Mass. (1941) An illustrated guide to the identification of various birds found primarily in the western part of the United States.

AUDUBON BIRD GUIDE OF SMALL LAND BIRDS. Richard H. Pough. Doubleday, Garden City, New York. (1953) Covers range, field identification, and general habits of small land birds.

BIRDS OF MEXICO. Florence Merriam Bailey. New Mexico Department of Game and Fish, Santa Fe, New Mexico. (1928) Excellent for birds of Arizona, New Mexico, and West Texas. Dr. Cheatum states that this is one of the best bird books in the country.

THE BIRDS OF LOUISIANA. Bulletin No. 20, Department of Conservation, New Orleans, La. (1931) Good summary of birds found in deep East Texas and Louisiana.

AUDUBON WATER BIRDS GUIDE. Richard H. Pough. Doubleday, Garden City, New York. Illustrated guide to water birds of the United States.

MEXICAN BIRDS. George Miksch Sutton. University of Oklahoma Press. (1951) Good for the Rio Grande country from Brownsville to the Big Bend.

LOUISIANA BIRD LIFE. George Lowry. Louisiana State University Press. (1955)

BIRDS OF THE AUSTIN REGION. George Finlay Simmons. University of Texas Press. (1926) This is the best book for birds in the Central Texas area.

DUCKS, GEESE AND SWANS OF NORTH AMERICA. Frances H. Kortright and T. M. Shortt. American Wildlife Institute, Washington, D. C. (1943) Illustrated with color plates and pen and ink drawings. Descriptions, habits, range and life histories of waterfowl. A must for anyone interested in this group of birds.

BIRDS OF AMERICA. T. Gilbert Pearson. Garden City Publishing Company, Inc., Garden City, N. Y. (1942). Illustrated with colored plates, includes general descriptions and life histories of various birds.

BIRDS	Bedichek	Stallcup	Selander
	*	*	*
A FIELD GUIDE TO BIRDS, 2nd Edition Roger Tory Peterson	*	*	*
A FIELD GUIDE TO WESTERN BIRDS Roger Tory Peterson	*	*	*
AUDUBON BIRD GUIDE OF SMALL LAND BIRDS Richard H. Pough		*	
BIRDS OF NEW MEXICO Florence Merriam Bailey	*		*
BIRDS OF LOUISIANA Louisiana Conservation Department	*		
AUDUBON WATER BIRDS GUIDE Richard H. Pough		*	
MEXICAN BIRDS George Miksch Sutton	*		
LOUISIANA BIRD LIFE George Lowry		*	*
BIRDS OF THE AUSTIN REGION George Finlay Simmons	*		*
DUCKS, GEESE AND SWANS OF NORTH AMERICA, Frances H. Kortright		*	
BIRDS OF AMERICA T. Gilbert Pearson			*

Dr. Roy Bedichek, Extension Division, University of Texas;
Dr. William B. Stallcup, Assistant Professor of Biology, Southern Methodist University;
Dr. Robert K. Selander, Instructor in Zoology, University of Texas.

Books on Marine Fishes

FIELD BOOK OF MARINE FISHES OF THE ATLANTIC COAST FROM LABRADOR TO TEXAS. (Revised edition) Charles M. Breder, Jr., G. P. Putnam's Sons, New York, N. Y. (1948) Distribution, characteristics, and habits of coastal species from Labrador to Texas are discussed with technical keys to identification of the species. Illustrated.

MARINE GAME FISHES OF THE WORLD. Francesca La Monte. Doubleday and Co., Garden City, N. Y. (1952) Illustrated in color and black and white; covers characteristics, habits, size, market value and angling methods for the major marine game fishes of the world.

NORTH AMERICAN GAME FISHES. Francesca La Monte. Doubleday and Co., Garden City, N. Y. (1945) Discussions of characteristics, size, living habits, distribution, market and methods of catching game fish found in the North American waters. Well illustrated.

FIELD BOOK OF GIANT FISHES. J. R. Norman and F. C. Fraser. G. P. Putnam's Sons, New York, N. Y. (1949) Illustrated in black and white and some color; a good reference for the larger marine animals and fish.

THE LIFE STORY OF THE FISH, HIS MORALS AND MANNERS. Brian Curtis. Harcourt, Brace and Co., New York, N. Y. (1949) An interestingly told biology of fishes written for the layman.

THE WAYS OF FISHES. Leonard P. Schultz. D. Van Nostrand Co., Inc., New York, N. Y. (1948) A general discussion of the lives of marine fishes, suitable for both layman and student.

FOOD AND GAME FISHES OF THE TEXAS COAST. Patricia Pew. Texas Game and Fish Commission Bulletin 33. (1954) Well illustrated with black and white drawings and photographs. An excellent handbook for identification of fish commonly found along the Gulf coast, giving size, distribution, food habits and uses.

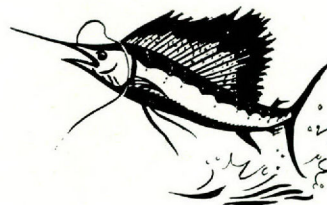
STUDIES ON MARINE FISHES OF TEXAS. Gordon Gunter. Institute of Marine Science, University of Texas. (1945) A semi-technical discussion of survey findings from netting along the Texas Gulf coast. Includes discussions on water content, size and concentrations of various fish, temperatures, and food habits. More for the student than the layman.

SEASHORES, A GUIDE TO ANIMALS AND PLANTS ALONG THE BEACHES. Herbert S. Zim and Lester Ingle. Simon and Schuster, New York, N. Y. (A Golden Nature Guide) (1955) An illustrated handbook written for the layman for use in identification of shore plants and animals.

NATURAL HISTORY OF MARINE ANIMALS. G. E. MacGinitie and Nettie MacGinitie. McGraw-Hill Book Co., New York, N. Y. (1949) A handbook of marine life and marine biology for the student and layman.

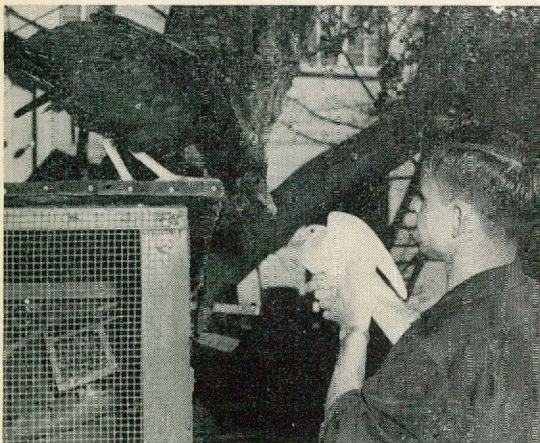
MARINE FISHES	Arnold	Reid	Hildebrand
	*	*	*
FIELD BOOK OF MARINE FISHES OF THE ATLANTIC COAST FROM LABRADOR TO TEXAS, Charles M. Breder, Jr.	*	*	*
MARINE GAME FISHES OF THE WORLD Francesca La Monte	*	*	
NORTH AMERICAN GAME FISHES Francesca La Monte	*		*
FIELD BOOK OF GIANT FISHES J. R. Norman and F. C. Fraser	*		
THE LIFE STORY OF THE FISH, HIS MORALS AND MANNERS, Brian Curtis		*	
THE WAYS OF FISHES Leonard P. Schultz	*		
FOOD AND GAME FISHES OF THE TEXAS COAST Patricia Pew			*
STUDIES OF THE MARINE FISHES OF TEXAS Gordon Gunter			*
OTHER MARINE LIFE			
SEASHORES, A GUIDE TO ANIMALS AND PLANTS ALONG THE BEACHES Herbert S. Zim and Lester Ingle		*	
NATURAL HISTORY OF MARINE ANIMALS G. E. MacGinitie and Nettie MacGinitie		*	

Edgar L. Arnold, Jr., Fishery Research Biologist, U. S. Fish and Wildlife Service;
Cecil Reid, Director of the Marine Division, Texas Game and Fish Commission;
Dr. Henry Hildebrand, Acting Director, University of Texas Institute of Marine Science.





When Bill Ward found the young buzzard, he had no idea that it could be tamed successfully, but he decided to try.



Buzzy has learned it's fun to be scratched, top above. Much to everyone's surprise, Buzzy didn't try to harm any of the other members of Ward's menagerie, below.



The pigeon, left, turtle, below, squirrel, and kangaroo rat, right, are Ward's present unusual guests.

Not many people would consider having a buzzard for a pet.

Unusual House Guest

Photos by Clyde Graham

Occasionally you will hear of someone who has a truly unusual pet. This is especially true in the case of Bill Ward of San Antonio, at present a student at the University of Texas. It is doubtful that very many people have ever thought of a buzzard as a possible pet, yet his unusual pet is a buzzard (turkey vulture). However Bill has had a number of unusual pets, and when he found the young bird when it was about three weeks old, he decided to add it to his menagerie.

At the time that he found it, it was about the size of his hand, but "Buzzy," as it was quickly named, proceeded to grow rapidly until at 10 months old it was almost fully grown. Feeding did not prove to be a problem, as expected, since "Buzzy" would eat only raw meat. He is fed twice a day and eats surprisingly little. His favorite food has proved to be ham, but he will eat no meat that has ANY fat on it at all.

Buzzy picked his own place to sleep—under the eaves of the back porch roof. He is very mischievous and loves to tease, and whenever Bill goes out into the yard, will fly down to play.

One unusual habit Buzzy has is that of following Bill when he goes to the bus stop or the store. He will waddle along behind him, but when he comes to a street crossing, flies over, waiting patiently on the other side until Bill catches up with him.—J.R.

A wide variety of meats are
yours for the eating, IF
you are willing to try . . .

Something New . . . Something Different

By JEAN RICHMOND

A great number of meats were found on the dining tables of our pioneer ancestors which we scorn today. The corner butcher shop has made us less inclined to try different meats—it is so much easier to buy a steak than to kill and dress other forms of meat. The result is that a large number of very edible and reputedly delectable meats are scorned or ignored. On the off chance that some of our readers may still have some of the old pioneer instinct for trying new things, we are offering some recipes for preparing some of the meats that our great-grandfathers considered as staples or delicacies.

Two of the more common meats which are still in general use today are rabbit and squirrel. Probably the most popular wild rabbit for eating purposes is the cottontail. Young, tender rabbits can be prepared in much the same way as chicken, usually by frying or stewing.

For fried rabbit, the following recipe has been found to be quite good:

- 1 small rabbit, cut up
- Salt
- Pepper
- $\frac{3}{8}$ teaspoon crushed oregano
- 2 tablespoons milk
- 1 egg
- $\frac{1}{4}$ cup flour
- $\frac{1}{2}$ cup fine dry bread crumbs

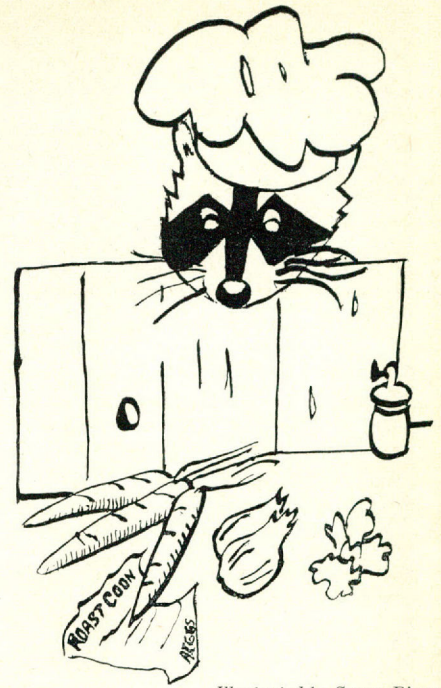
Sprinkle each piece of meat with

salt, pepper and oregano. Beat milk and egg together slightly. Dip seasoned meat into flour, egg mixture and lastly in bread crumbs. Brown quickly in $\frac{1}{2}$ -inch hot fat, reduce heat and cook 20 to 30 minutes longer, or until tender. Drain and serve.

A favorite dish from "the old country" is the famous German Hasenpfeffer, a tasty rabbit stew. For this you will need:

- 1 cup vinegar
- 1 12-oz. bottle beer
- 2 large onions, sliced
- 1 tablespoon mixed pickling spices
- 1 teaspoon salt
- $\frac{1}{2}$ teaspoon pepper
- 1 large or 2 small rabbits, cut in serving pieces
- $\frac{1}{4}$ cup flour
- $\frac{1}{4}$ cup fat
- 1 tablespoon sugar

Combine vinegar, beer, onion, pickling spices, salt and pepper in a large earthenware bowl. Add rabbit pieces. Cover an let stand in refrigerator 1 to 2 days, turning the meat several times. Dry rabbit pieces with absorbent paper, then dip in flour. Melt fat in a large skillet. Add meat and brown on all sides. Pour off fat. Strain the mixture the meat has soaked in and add with sugar to the meat. Bring to a boil; reduce heat, cover and simmer 40 minutes or until rabbit is tender. If desired, the liquid may be thickened with flour mixed with a little water. This may be served with potato dumplings



Illustrated by Sonya Riggs

and buttered green beans. (Recipes taken from "A Guide to Game Cookery.")

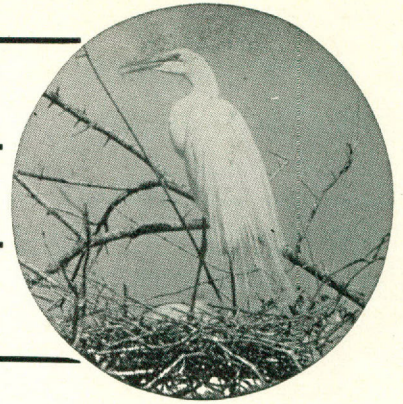
Squirrel may be cooked in the same way as rabbit or chicken—fried or in various kinds of stew. Young squirrel is also delicious when broiled. To broil squirrel, prepare the same as you would a chicken, cutting the meat into serving pieces. Place the meat on a shallow pan and brush with melted butter to which a little garlic salt has been added. Place the pan in the broiler, add 2 inches below the flame. Cook 20 minutes, or until the meat is tender, basting frequently with melted butter.

Both rabbit and squirrel are excellent when curried, and offer something a little unusual. To prepare, cut the meat into serving pieces and simmer in just enough salted water to cover for about 30 minutes, or until the meat is tender. The curry sauce can be prepared using your basic white sauce recipe with the addition of 1 to 2 teaspoons of curry powder with the flour. The meat can be added to the sauce either in pieces or it can be removed from the bones and cut up before adding. Cook 5 minutes longer. This curry should be served over cooked rice, with a tossed salad on the side.

Although they are seldom used today, a number of the fur-bearers can be prepared in taste-tempting ways.

• Continued on page 26

Spotting the Birds of Texas



This is the sixth in a series of articles taken from *A Guide to Bird Finding West of the Mississippi* by Olin Sewall Pettingill, Jr. (Oxford University Press, New York) which list some of the interesting birds which appear (in season) in general areas of the state. Each area is divided into smaller localities noting the typical habitat where the birds may be found.

An incomplete list, it is intended only to encourage interest in and enjoyment of birds found in Texas.

EL PASO AREA

ASCARTE PARK

Horned grebe	
Western grebe	
Pied-billed grebe	
Ducks (species)	
Hérons (species)	
Coot	Winter
Mountain bluebird	
Brewer's blackbird	
Spotted towhee	
Baird's sparrow	
Oregon junco	
Brewer's sparrow	
White-crowned sparrow	
Scaled quail	
Gambel's quail	
Mourning dove	Year-round
Red-shafted flicker	
Ladder-backed woodpecker	
Yellow-billed cuckoo	
Black-chinned hummingbird	
Western kingbird	
Traill's flycatcher	
Mockingbird	
Bell's vireo	(June-July)
Yellow warbler	
Yellow-throat	
Yellow-breasted chat	
Bullock's oriole	
Summer tanager	
Blue grosbeak	
Painted bunting	

McKELLIGON CANYON

Desert and canyon habitat
Scaled quail

Road runner	
Verdin	
Cactus wren	Year-round
Canyon wren	
Rock wren	
Brown towhee	
Desert sparrow	

BIG BEND NATIONAL PARK AREA

GARDEN SPRINGS (near Marathon)

Cottonwood—willow thickets	
White-crowned sparrow	Winter
Lark bunting	
Mesquite—creosote bush thickets and arid flats	
Red-tailed hawk	
Swainson's hawk	
Scaled quail	
Mourning dove	Year-round
Road runner	
White-necked raven	
Loggerhead shrike	
Pyrrhuloxia	
Desert sparrow	

THE BASIN—5300 FEET

Pinon pine, juniper, scrub oak, sotol	
Cactus wren	
Scaled quail	
Road runner	Year-round
Bewick's wren	
Lesser goldfinch	
Brown towhee	
Mountain bluebird	
Virginia's warbler	
Macgillivray's warbler	
Green-tailed towhee	Transients and
Oregon junco	Winter Residents
Gray-headed junco	
Chipping sparrow	
Black-chinned sparrow	

Cliff walls and taluses	
Canyon wren	
Rock wren	Year-round
Rufous-crowned sparrow	
Poor-will (April-July)	

OAK CREEK

Thickets and rimrock

Band-tailed pigeon
Acorn woodpecker
Arizona jay
Black-crested titmouse Nesting
Cactus wren
Crissal thrasher
Western tanager
Hepatic tanager
Lesser goldfinch
Spotted towhee

White-winged dove (occasionally)
Inca dove

Elf owl (dead bloom stalks of century plant)

Pyrrhuloxia
Painted bunting Some may be found
Duck hawk Year-round

Zone-tailed hawk
Mexican black hawk
Ladder-backed woodpecker
Black phoebe
Say's phoebe
Canyon wren
Yellow warbler
Orchard oriole
Blue grosbeak
Desert sparrow
Red-shafted flicker (dwarf)

Audubon's warbler Winter
Red-naped sapsucker

BOOT SPRINGS—6500 FEET

Maples, oaks, Arizona cypress
Colima warbler (ground nester) (May-Sept.)

Golden eagle
Band-tailed pigeon
Screech owl
Whip-poor-will
White-throated swift
Blue-throated hummingbird
Broad-tailed hummingbird
Acorn woodpecker Nesting
White-breasted nuthatch
Hutton's vireo
Western tanager
Black-headed grosbeak
Mearn's quail

Black-throated gray warbler
Townsend's warbler Winter Transients
Western bluebird

Meadows
Townsend's solitaire Nesting
Bush-tit

TORNILLO CREEK—1800 FEET

Mesquite, desert willow, agave, button bush,
cottonwood, and willow
Black-chinned hummingbird
Broad-billed hummingbird Nesting
Vermilion flycatcher
Scaled quail (in dry washes)
Lesser nighthawk

White-winged dove
Inca dove
Road runner
Great-horned owl (on the cliffs)
Ash-throated flycatcher
Crissal thrasher
Plumbeous gnatcatcher
Bell's vireo
Scott's oriole
Summer tanager
Cardinal

SANTA ELENA CANYON

White-throated swift
Black phoebe
Common raven Year-round
Canyon wren
House finch

FORT DAVIS AREA

LOWER ELEVATION—5000 FEET

Mesquite, acacia, yucca, and cactus
Common nighthawk
Lesser nighthawk
Cassin's kingbird
Crissal thrasher Year-round
Road runner
Horned lark
Western meadowlark
Cassin's sparrow

SLOPES AND UPPER ELEVATIONS— 5500-8000 FEET

Scrub oak, juniper, pinon pine, and aspen
Mourning dove (lower slopes)
Poor-will
Rufous hummingbird
Cassin's kingbird (conspicuous near
summits)
Ash-throated flycatcher
Olive-sided flycatcher
Scrub jay
Black-crested titmouse
Bush-tit Nesting
Bewick's wren
Canyon wren
Rock wren (lower slopes)
Hepatic tanager
Black-headed grosbeak
Brown towhee
Rufous-crowned sparrow
Chipping sparrow
Phainopepla (occasionally)
Scissor-tailed flycatcher
Say's phoebe
Scott's oriole
Lesser goldfinch
Black-chinned hummingbird



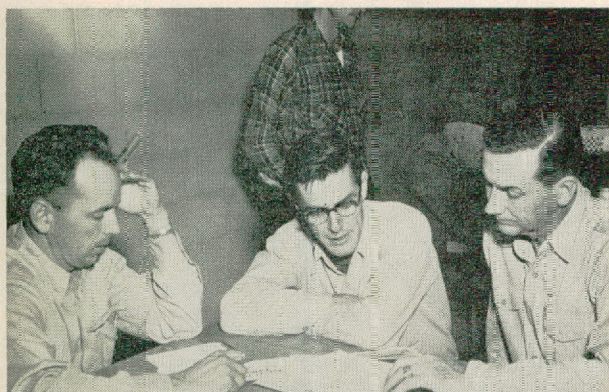
Biologist Tom Moore and Warden Bob Snow gave instructions to hunters. A map of the area was given to each hunter, and the boundaries of their respective hunting areas pointed out. Individuals and

parties of hunters were assigned to specific camp sites, where drinking water and firewood had been placed beforehand. All hunters participating had been chosen in a public drawing in Austin.

1 in 13 Were Chosen

for the Black Gap Area hunts

By TOM MOORE, Biologist



Tom Moore, left, biologist for the Black Gap Area; Al Springs, Assistant Director, and Eugene A. Walker, right, Director of the Game Commission's Wildlife Restoration Division in Austin, look over plans for the public hunt.

THE BLACK GAP Wildlife Management Area, a primitive game refuge in the Big Bend country, again played host to Texas sportsmen with the completion of its second year of public mule deer and javelina hunting. The 53,000-acre area is one of three such areas owned by the Texas Game and Fish Commission having a public hunt of surplus deer in 1956.

To participate, hunters made application to the game commission in early fall. Names were selected by public drawing prior to the 6-day season (December 8-13), and the lucky hunters notified. In the drawing for the Black Gap Area 200 people were selected out of 2,639 applications received. On the basis of information secured from

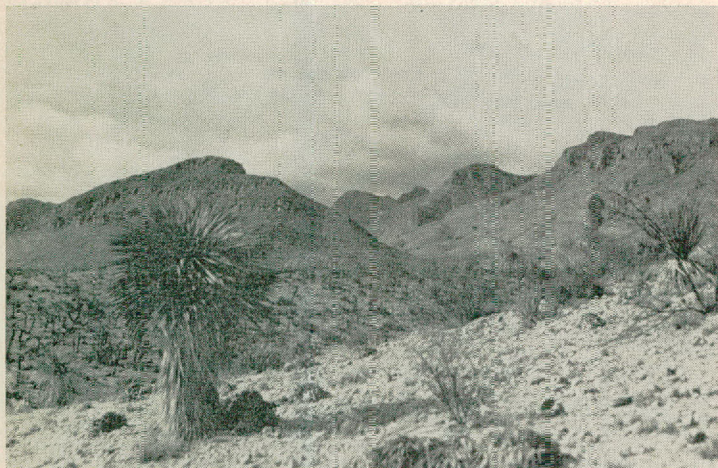


Photo by W. S. Jennings

This scenery is typical of the Black Gap Area in Texas' Big Bend country where the public hunt was held.

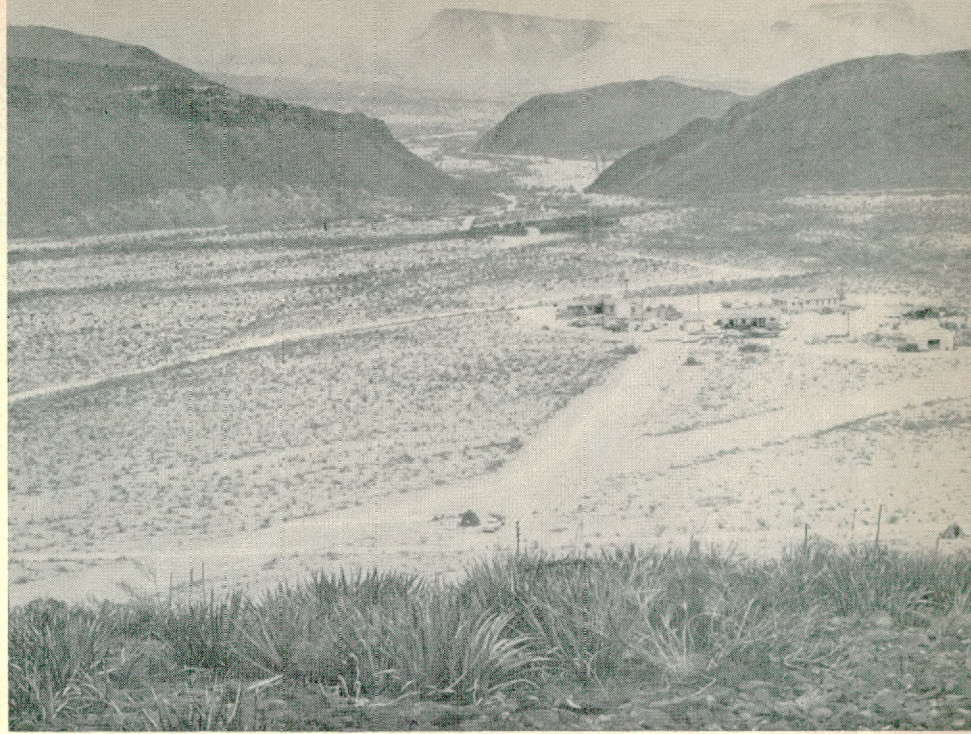


Biologist Moore with some of the deer and javelina killed during the 1956 hunt.



Photo by Tom Moore

Holes such as this one have been blasted from solid rock to furnish watering places for wildlife on the Area.



A view of the Black Gap Management Area, showing headquarters buildings and the "Black Gap" in the background for which the area was named.

the 1955 hunt, these 200 hunters were expected to bag 50 legal bucks. For varying reasons only 155 hunters reported to the area but this was anticipated and the 155 figure was considered appropriate. Only 27 out of 50 hunters selected for the 1955 hunt actually reported to the area. They killed five legal bucks and no javelinas.

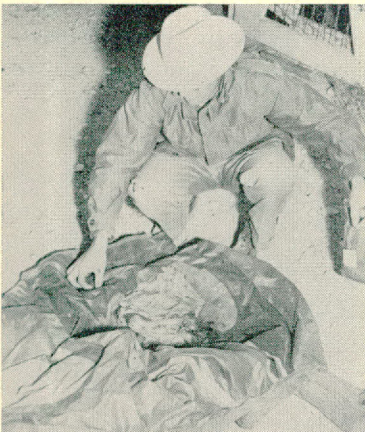
Sixty-one legal bucks were taken for a per cent success of 38.8. A kill figure such as this is very good considering that each hunter had only two days to hunt. The following is a breakdown of the three two-day hunts showing hunt data:

Hunt No. 1	Hunt No. 2	Hunt No. 3
55 hunters reporting	51 hunters reporting	49 hunters reporting
25 mule deer killed	19 mule deer killed	17 mule deer killed
14 javelinas killed	3 javelinas killed	3 javelinas killed

A total of twenty collared peccary or javelinas were bagged. Thirteen by successful deer hunters who also bagged a javelina, while seven hunters

● Continued on page 29

Photos by Russell Pancoast



Hunters were requested to bring in stomachs of the deer for examination by the biologists. One man complied by bringing one in, in his raincoat.



The heaviest deer, weighing 165 pounds, dressed, was killed by E. B. Sanders of Lockhart, right.



The only tagged deer taken in the hunt. It had been trapped in 1950. Although it was small (dressed at 108 pounds) it was in good condition.



WHAT DO YOU KNOW?

These two professional journalists went out into the field to determine whether the duck hunting they had been writing about was as good as they said. It just happened that Gus T. McMammal, the omnipresent layman wildlife exponent, came along to confirm what they confirmed.

SO ARE YOU

The way these aquatic biologists carry on when they're talking about the different fish species is a caution. For example here's the translation of a Game and Fish Commission report on gill netting tests on Medina Lake near San Antonio, showing that the studies included gar, shad, redbone sucker, carp, channel catfish, white bass, black bass, bluegill and crappie. The official report referred to them as *Lepisosteus osseus*, *Dorosoma cedianum*, *Moxostoma congestum*, *Cyprinus carpio*, *Ictalurus punctatus*, *Morone chrysops*, *Micropterus salmoides*, *Lepomis macrochirus* and *Pomoxis annularis*. If it helps any, the scientific references are made in the same order as the English references.

LASTING IMPRESSION

The several hundred big game hunters who served as guinea pigs to complete seasonal deer research on wildlife game management areas contributed perhaps more than they realized. Beyond actual harvest of the surplus game to top the Game and Fish Commission cycle, the gunners had fun—and action. Reference is to the South Texan who spotted mountain lions on successive days in the Black Gap shoot. And to such as Jon Ford, Statehouse correspondent for the San Antonio *Express-News*. Ford saw a what's-it that never has been definitely identified. Hunting on the Kerr area in the Hill Country, Ford observed something that seemed to be half way between a wild hog and a jungle cat. He wasn't certain whether it had feathers.

SOGGY STORY

M. Toole, Chief Aquatic Biologist for the Game and Fish Commission, found a new and practical use for deep sea diving equipment of the kind that has become standard for the 1957 model aquatic biologist. A crew cutting moss in Lake Austin, knocked out Toole's lakeside water system—consisting of a pipe extending along the floor of the lake into deep water. So M. Toole, all six foot, four inches, put on the down-under togs and restored the water works. In mid-winter, too.

DUCK AUTOPSY

The present custom of checking strange growths for malignancy caught up with an adult male baldpate duck shot on Lake Travis and turned over to Aquatic Biologist Ken Jurgens. He relayed it to Wildlife Biologist William S. Jennings, who conducted a post mortem at his

desk in Game Commission headquarters. He removed a growth on the fowl's back, using his pocket knife to separate the thing from the duck. Jennings then dispatched the pullet-egg-sized growth to Wildlife Biologist J. R. Singleton, down on the coast, who has a laboratory for probing such affairs. Jennings said he had no means of determining what the growth was, but he did observe that the duck seemed healthy and was fat.

WICKED WASPS

Hazards for the Texas outdoorsman were pointed up by the State Health Department *Bulletin* in that "the stings of wasps and ants killed as many Texans last year as did rattlesnake bites." Two persons fell victim to wasp stings, two died of ant stings and two succumbed after being bitten by rattlesnakes. A scorpion sting proved fatal to one person. Here is the official explanation: "The deaths from insect stings were unique instances of anaphalaxis caused by extreme sensitivity to insect venom. In the ordinary person the venom would have had no effect beyond an annoying itch at the site of the sting, or at worst a mild allergy, perhaps manifested in the form of hives."

DUCKOLOGY

A duck cannot get away with things like it used to, reports Game and Fish Commission technicians. A teal was trapped at Rockport and then released at San Marcos at 4:30 P.M. on February 10. The next morning it was found with other ducks in the same trap, 139 air-line miles away from where it was turned loose. Hunger again was the dominant factor.

Press Views Game Notes

ROBERTS' RICHOCHET

Tall Charley Roberts, the Travis county backwoodsman who shared a father-son gun safety feature in this magazine, became a cropper the week after the article appeared. He slipped on a rolling rock, fell down a slippery cliff and wound up with a broken shoulder and a bashed nose. Charley's six foot four, and from his description of the incident his fall would have done justice to a Hollywood stunt man.

TEXAS-SIZE TALE

The AP carried a yarn about a North Carolina woman motorist killing a deer with her car and then repeating the act as she headed for the game protector's office to report the initial tragedy. . . . A clipping of the incident was mailed to the Game and Fish Commission headquarters in Austin, with an anonymous handwritten note that the informer had read "in the paper" about a Texas person whose car killed a deer, being fined for killing a deer out of season. . . . Search of Commission records failed to turn up such a report.

BULL FROG BONANZA

Game Warden Harold A. Bierman of Fort Worth reported a rare scene on a new highway under construction between Lake Worth and Azle. He said for a period last October migrating bull frogs covered the area at night by the thousands, and motorists harvested them at the rate of three thousand nightly. He said some picked up fifty frogs or more. "I have never seen a sight like this before," wrote Warden Bierman. "Nor have I heard of same. These frogs were very large and most of them had legs as large or larger than the average chicken leg."



MINKS BEWARE

A dutiful Texas father is seeing to it that his boys know the pioneer ecstasies of arising at 5 A.M. to run a five-mile trap line. He is rancher Edgar Hudgins living down in the rich Wharton county plains. Hudgins personally gets up with the youngsters and shows them around the circuit. He did that first with Joe and Les, now 17 and 15, respectively. Now it's the turn of the twins, Bob (left) and Bill, shown here with a mink hide. The Hudgins have a comfortable rural home in preference to a town house just so the boys can keep close to nature. Take a second look at the photo and judge how they're faring on the old-fashioned routine.

AGAINST SIN, TOO?

Kenneth Foree, outdoor editor for the Dallas *Morning News*, has taken another firm stand, which is characteristic of his informative column. He has come out against using anything but rubber footwear in scrambling around slippery fishing boats. Ken, the indestructible type, started a mid-winter vacation in a pair of land-happy leather shoes. Boarding a craft at Rockport for some deep-sea research, he skidded on the wet bottom, crashed against the side of the boat and broke two ribs. And dashed his leave upon the rocks. . . . In his first back-home-piece optimistically observed that "the overall picture is good"; that "sportsmen's relations with the Legislature are improving," and that "the doors are being locked before the fun is gone."

TRUE TEXAS YARN

A tired hunter returned to his Lake Austin home after a fruitless big game hunt three hundred miles deep into Southwest Texas. His neighbor hollered over the fence that it was a fine "tame" deer—an eight-point buck—they had just seen sampling his yard grass and water. He asked not to be kidded too much in view of his frustrated frame of mind. . . . A few days later this same fellow blinked in amazement when he looked out his bedroom window and saw a fine, sleek, wild turkey hen standing atop the rickety bird feeding stand, dodging the dive bombing assaults of aroused cardinals.

WELL TRAVELED

The growing numbers of snow geese in Texas waterfowl wintering areas is reflected in a report by Wildlife Biologist J. R. Singleton, pinpointing states and areas where banded ducks and geese harvested in Texas were originally caught, trapped and "branded." The largest number—994—came from the Hudson Bay country of Canada. Saskatchewan was next with 756; Oklahoma third with 676; Manitoba fourth with 413 and California fifth with 374. Vocal expressions of the ducks and geese bagged by Texas hunters were mostly with a northerly accent—north, northeast, northwest—but one of the bagged birds was tagged straight eastward in Alabama.

MILADY'S DEMANDS

Floyd Murray who presides at "East Texas Talks" on Page One of the Tyler *Morning-Telegraph*, was backtracking about the furred varmint trade: "We'll never forget the fur price lists we used to get regularly, as well as the catalogs of trappers' supplies every fall and winter. Most valuable fur animal in our neck of the woods was mink. They were also the scarcest and hardest to catch. Even mole skins were quoted in the price lists, at about a dime as we recall—we gave all the mole skins we caught to the women folks for powder puffs."

"RING TAIL"

Strange, sly, and alert, the "Ringtail" is found over most of the state, but is seldom seen due to its nocturnal habits. In Texas the ringtail is usually clothed with dense silver gray fur. It has the ability to squeeze into extremely narrow cracks between rocks, where it often makes its home. It is one of our most valuable fur bearers.



Probably due to its cat-like appearance and ability to catch rodents, the ringtail has acquired the misleading title "Ringtailed Cat." It is not a cat but is the only Texas representative of the family "Bassariscidae." Other common names for the ringtail are "Bassariscus" and "Cacomistle."

Usually selecting a rocky ledge, hollow tree, or an abandoned house or barn, the female builds a nest of soft woody fibers for her 2-4 young ones. Their diet consists of fruits, insects, earthworms, small birds, and a number of rodents. The ringtail is one of our most unusual animals.



Walton Cude

GUNS

and

SHOOTING

This Month: Big Bore Rifles

By JOHN A. MASTERS

As probably any reader of this column knows, I have long belonged to the school of thought that believes that a fast light bullet is a better killer than a large slow-moving slug. My experience has indicated that in, say, George Curry's 250 Magnum, a 100-grain bullet shoved along at near 3500 feet/second will kill just about anything one will run across. There is one fly in the ointment, however. It must be conceded that such a light speedy pellet must strike when its velocity is still high, so that it can penetrate and then blow up. In this manner, all the bullet energy is imparted to the animal being taken—and a very telling clout it is, too. If the slug goes winging on through, and expends a great deal of energy on the atmosphere, not a great deal is accomplished in the way of shock.

However, a good wound channel is usually obtained and a clean kill the usual result, although the animal may travel far enough to amaze and confound you.

Conditions are not always favorable for the use of an ultra-high-velocity rifle. This year I got a right fair buck in the sights of my 270, which I had loaded with 60 grains of 4831 behind a 110-grain Sierra Spitzer bullet. He was standing in a little ravine, with perhaps four inches of his back visible, plus, of course, his neck and head. There was a fringe of grass between us. I decided that I would clip his spine rather than take the undesirable neck shot that might spoil a good cape, if I decided to mount the head. As is my usual practice, I was in a good firm sitting position when I

squeezed off the shot. I called it dead on, but the buck wheeled and ran right up an open glade, and, some distance away, paused to look again at this strange creature that had exploded in his face. He then turned and trotted off into the brush.

I examined the area closely, and found a dry, hard stalk of broomweed that was perhaps the thickness of a pencil. It had been clipped off neatly, and some two or three feet in front of the stub, I found a disturbed place in the hard-packed earth. That's where the bullet had gone after being turned off course by the broomweed.

Had I been using a big-bore rifle with a heavy bullet, very likely I would have harvested the buck.

What is a big bore? To me, anything over 30 caliber qualifies, except, perhaps, the .32 Special, which is for all practical purposes the same as the venerable 30-30. This puts us into .35 calibers for all practical purposes.

A good deer cartridge in the .35 caliber class is the .35 Remington. This is definitely not a long-range cartridge, but at ranges up to 150 yards, its 200-grain factory-load moving at 2210 feet/second is a good deer killer. It has been used on moose and elk, although it's probably not the best round in the world for such use.

A much better .35 caliber is the .35 Whelen, a wildcat obtained by necking the 30-06 case up to .35 caliber. This is, of course, a handloader's cartridge, and a good one. Vernon Speer lists a number of loads for the cartridge in his Volume One Handloaders Manual. With the 220-grain bullet, average velocities are around 2700, not far off the 30-06

Shootin' Shorts

I have just received Volume Two of Speer's Handloading Manual. This one is devoted to wildcat loads, and is the best source of dependable wildcat information that I have run across.

Speer didn't just gather up and compile his information. The dope in this book came from actual firing and chronographing, using a Potter chronograph, which is acknowledged to be the best available.

There is a wealth of information aside from loads in this excellent book. Speer is a handloader, and knows handloading problems. I highly recommend the book to any handloader or gun enthusiast.

Remington is now making their Sportsman 58 gas-operated, semi-

auto shotgun in 20 gauge. I will have one soon to look over and report on.

The famous Model 99 Savage lever-action rifle is now available in a range of calibers that makes possible the taking of virtually any North American game animal. This fine rifle, now available in 250-3000, .243 Winchester, .308 Winchester, .300 Savage, and .358 Winchester, has a long record of satisfactory performance, and is a good choice for the lever-action shooter.

Sears, Roebuck has dolled up their rifle based on the well-known FN Mauser action. A cheek-piece has been added to the stock, and some pretty nicely done checkering is also new. A good buy.—J.M. **

with a 180-grain bullet. This is a potent killer, and can be used on the largest North American game with complete confidence.

The newest big bore is the .358 Winchester, a necked-up version of the .308 case. This case is smaller than the 30-06, of course, so case capacity is limited somewhat, with resulting lower velocities. A 220-grain bullet can be moved about 2500 feet/second, which is certainly fast enough to make the gun chambered for the case a deadly killer on white tails, mule deer and the like. I wouldn't recommend it for moose or elk, although in the hands of a good shot who can place his bullets well, it would no doubt be adequate.

Another wildcat in the big-bore class is the .333 OKH. This is the 30-06 case necked-up to .333, a cartridge that Elmer Keith had a great deal to do with. I don't know just how they arrived at the size, but the case will move a 275-grain bullet along at around 2400 feet/second. Because of its great sectional density, the bullet flies quite flat, according to Keith and others who swear by the cartridge. It has been used on all North American big game, on rhino and lion in Africa, and has proved its worth beyond challenge. Right off hand, though, danged if I know where you could get a rifle built for the odd-ball critter, unless P. O. Ackley could fix you up.

A good, fast-handling brush gun is the Model 71 Winchester chambered for the .348 Winchester cartridge. Many old-time Alaskan guides swore by this cartridge, and it certainly has earned its place. I suspect the new .358 Winchester will pretty much replace it. Ballistics are similar.

That brings us to the widely used and thoroughly proved .375 H & H Magnum, a walloper that has been used on just about everything with four legs. While normally thought of as an African cartridge, it has been used in this country for virtually all game for a long time—long enough to establish it as one of the world's fine cartridges.

Jim Bean, a photographer friend of mine, has a really nice rifle for this cartridge, built for him by

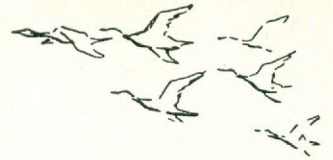
George Curry. It will group right along with the finest .270 and 30-06 rifles. Jim had it built with an Indian tiger hunt in mind, but he used it on a deer hunt we went on last year.

One can take the smaller deer with this monster cartridge with a minimum meat spoilage, provided the bullet is placed in the rib cage. Personally, I don't find the recoil unbearable, but it is heavy.

The recoil of the .375 is the direct cause of my coming into possession of another rifle. A fellow who bought a new .375 in a Model 70 found the recoil too much for him, and had the rifle rebarreled to something smaller. I got the barrel for a song and had Bill Cervenka of San Angelo fit it to a Springfield action. Bill rechambered it to the short blown-out version that will work through the Springfield action without lengthening the action. Thus, I have wound up with a .375 short magnum with just about the same powder capacity as the standard .375 H & H case. I am going to fit it with a 2¾ Kollmorgen Bear-Cub scope, and use it for brush hunting in Texas next year. I am also hoping to get an elk with it, and one day, perhaps a moose or a Kodiak Brownie. (No, son, I didn't say a Kodak Brownie. Note the i.)

Elmer Keith has long held, quite sensibly, that dangerous game isn't dangerous until it is close, and that if it close, you need the huge power of the big bores. Keith knows whereof he speaks, and while I do not agree with him that the .358 Winchester is the only good all-around cartridge, I do concede that the bigger stuff requires a bigger hole in the barrel. I believe with my .243 Winchester, my .270 and my .375 Short Magnum, I have an adequate arsenal for all the hunting I will likely ever do, and I am looking forward already to next year's hunting seasons.

If you don't plan to hunt where long shots are the rule, give the big bores some thought. If you intend to hunt brushy country a lot, undoubtedly one of them will do you a good job. They definitely have a place on the gunrack, and, even in a world gone speed mad, will continue to take their share of game.**



It Happened This Way . . .

A warden in South Texas recently became curious about a car traveling on a country road with its lights off, and started following it. Suddenly the car stopped for a minute, and the warden thought he heard a shot. However, the car went on quickly. The curious warden overtook the car and stopped it to question the driver, who, of course, denied any wrong doing. The warden told the driver to get into the back seat of the car and lie down so that he could not be seen, and then drove back to the site where he believed the car had previously stopped. He blinked the lights a couple of times, and imagine his surprise when a man suddenly jerked the car door open and quite literally leaped into the warden's lap. The suspected game law offender did not have his gun with him, however, after questioning he took the warden to the place where it was hidden under a pile of brush and leaves. These two men were charged with headlighting deer and shooting from a public road. Although the warden was unable to find evidence of a kill that night, further search the next morning disclosed the deer that had been killed illegally. * * *

Recently a Hill Country warden received a call to come out to a man's ranch to pick up a deer that had run into a post and broken its neck. When the warden arrived at the house an hour or so later, the man's wife told him that the rancher had "packed the deer right over there and covered it up with a blanket."

As the warden walked over to the blanket-covered deer, he noticed that it seemed to move a little. And when he reached the deer, it suddenly jumped up and ran into the brush. Aside from a possible headache, the deer appeared perfectly all right.

Where To Find Your Warden

A list of Texas Game Wardens with their addresses

Clip and Save This Directory

Your Game Warden is your local representative of the Game and Fish Commission. He is at your service to issue a license, to explain the work and services offered by the Commission, to interpret the game laws for you, or to help you in any way he can. Get better acquainted with him—he is there to serve you.

Quail Restocking Program . . .

If you are interested in obtaining quail from the Commission's quail hatchery, your local warden is the first person to contact for information concerning the required habitat improvement measures and the procedure for filing applications.

Information about game laws . . .

A summary of game and fish laws is contained in a "Digest of Game and Fish Laws," published by the Commission and available without charge from wardens and most license agents and sporting goods stores or from the Game and Fish Commission, Austin 14, Texas. Since laws on some species may vary in different counties, you may find it advisable to check with your warden concerning the laws in the county where you plan to hunt or fish!

GAME WARDEN REGIONAL SUPERVISORS

F. M. Cowsert	1905 Stamford, Austin
H. A. Ellis	624 Troup Road, Tyler
A. E. Hitzfelder	2nd Floor, County Courthouse, San Antonio
A. W. Lewis	First Floor, County Courthouse, Dallas
J. H. Maggard	2101 Teckla Blvd, Amarillo
Frank Mebane (Coastal)	Box 562, Alvin
Lewis M. Morris	County Courthouse, Beaumont
M. B. Mullinax	Box 274, Rockport
Bob Snow	964 Barnet St., Kerrville
G. M. Stricklin	Star Route 2, Beeville
Tom T. Waddell	Box 171, Eagle Lake
Herbert C. Ward	Box 106, Catarina
A. R. Williams	Box 995, Alpine
John R. Wood	Box 223 Brownwood

LAKE WARDENS

B. Dam	J. B. Weaver	Woodville
Belton	Floyd Gaby	Box 3127, Temple
Buchanan	R. L. Flanagan	Box 747, Burnet
Caddo	T. C. Browning, Jr.	Route 2, Karnack
Corpus Christi	F. C. Henze	Box 675, Mathis
Falcon	Raymond Davee	Falcon Heights
	Harvey Adams	Zapata
Medina	L. D. Nuckles	Castroville
Possum		
Kingdom	Leon Stowe	Box 265, Grafrod
Texarkana	Benjamin P. Brooks	808 Hickman, Wake Village
Texoma	Hill Lawrence	Route 1, Pottsboro
Whitney	Louis H. Clymer	Box 456, Whitney

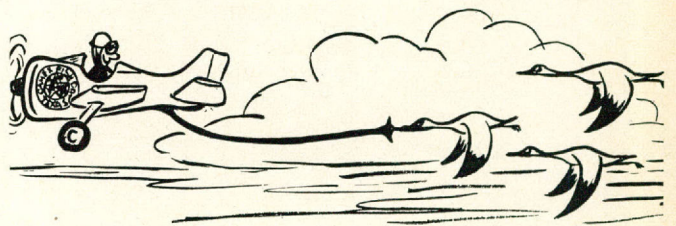
Wardens by Counties

County	Warden	Address
Anderson	Clarence D. Kornegay	Box 101, Palestine
Andrews	Noel J. Head	Box 991, Seminole
Angelina	H. W. (Bill) Seago	1407 Virginia, Nacogdoches
Aransas	M. B. Mullinax	Box 274, Rockport
	Earl Sloan	Box 247, Aransas Pass
Archer	W. C. Cave	2012 Elizabeth, Wichita Falls
	Morris E. Stallcup	3114 Sherwood, Wichita Falls
Armstrong	Lake L. Black	829 Maryland St., Amarillo
	Woody Pond	Box 801, Canyon
Atascosa	Bubba Gregory Reed	P. O. Box 605, Pleasanton
	Frank W. Smith	Box 32, Pearsall
Austin	E. E. Hargett	Box 95, Bellville
Bailey	Patrick L. Donnelly	Box 149, Littlefield
Bandera	R. L. Stevens	Box 54-A, Bandera
Bastrop	Ben Gaddy	604 Josephine, Austin
Baylor	C. T. Pittman	Box 12, Seymour
Bee	Curtis Oswalt	Box 7, Beeville
Bell	Floyd I. Gaby	Box 3127, Temple
Bexar	A. E. Hitzfelder	County Courthouse, San Antonio
	Alton D. Willmann	132 Honeysuckle Drive, San Antonio
Blanco	John T. Taylor	Box 204, Marble Falls
Borden	William H. Pratt	Box 176, Lamesa
Bosque	Clifford H. Johnson, Jr.	Box 237, Meridian
Bowie	John A. Shaddix	Box 783, New Boston
Brazoria	W. C. Childress	Box 181, Pearlton
	H. T. Mayne	Box 566, Angleton
Brazos	J. D. Robertson	Box 894, Bryan
Brewster	Sanford J. DeVoll	Box 698, Alpine
Briscoe	Woody Pond	Box 801, Canyon
Brooks	Harvey H. Schoen	Box 393, Falfurrias
Brown	Harol D. Penney	Box 473, Brownwood
Burleson	Paul Bogusch	Box 516, Brenham
Burnet		
(W. of Hy. 183)	J. T. Taylor	Box 204, Marble Falls
	R. L. Flanagan	Box 747, Burnet
	Billy M. Sprott	409 E. Kerr, Burnet
Caldwell	Del W. Bowers, Jr.	Route 1, Box 309, San Marcos
Calhoun	Herman C. Schliesing	Box 1235, Port Lavaca

County	Warden	Address	County	Warden	Address
Callahan	J. D. Jones	Box 401, Abilene	Guadalupe	F. E. Hollamon	Box 825, Seguin
Cameron	Robert E. Middleton	Box 1550, Brownsville	Hale	Wm. V. Riddle	2608 37th St., Lubbock
	William R. Stewart	Box 1444, Harlingen	Hall	W. D. Hicks	Box 43, Memphis
Camp	Robert B. Jesse	Box 366, Gilmer	Hamilton	Clifford H. Johnson, Jr.	Box 237, Meridian
Carson	Jack Woodford	Box 26, Miami	Hansford	Starkey V. Whitehorn	Box 103, Borger
Cass	B. P. Brooks	808 Hickman, Wake Village	Hardeman	Charles L. Boynton	510 W. 10th St., Quanah
Castro	Patrick L. Donnelly	Box 149, Littlefield	Hardin	Olan H. Davis	County Courthouse, Beaumont
Chambers	Olan H. Davis	County Courthouse, Beaumont	Harris	Robert L. Cross, Jr.	1203 Prudential Ins. Bldg., Houston
	Geo. B. Killebrew	Box 24, High Island		Martin A. Peterson	General Delivery, Humble
	Raymond E. Martin	Box 3112, Port Neches		Joe B. Brower	1203 Prudential Ins. Bldg., Houston
	Geo. T. Miller	6401 Dave St., Groves		C. E. Beezley	Rt 5, Box 563-A, Houston
	Chas. A. Short	Box 365, Anahuac			Sheldon Reservoir
Cherokee	James J. (Jack) Tisdale	Box 205, Rusk	Harrison	T. C. Browning, Jr.	Rt 2, Karnack
Childress	W. D. Hicks	Box 43, Memphis	Hartley	Jess Felts	Box 727, Dalhart
Clay	W. C. Cave	2012 Elizabeth, Wichita Falls	Haskell	Harry B. Iverson	Box 176, Throckmorton
	Morris E. Stallcup	3114 Sherwood, Wichita Falls	Hays	Del W. Bowers, Jr.	Rt. 1, Box 309, San Marcos
Cochran	Patrick L. Donnelly	Box 149, Littlefield	Hemphill	P. D. Moseley	Box 337, Canadian
Coke	Henry B. Burkett	204 Glenmore Ave., San Angelo	Henderson	Fred L. Gilliam	Box 746, Athens
	James J. White	1415 S. Van Buren, San Angelo	Hidalgo	W. J. Frazier	329 E. Cherokee, Pharr
Coleman	Harol D. Penney	Box 473, Brownwood	Hill	Louis H. Clymer	Box 456, Whitney
Collin	Charles R. McCallum	Box 531, Wylie	Hockley	Patrick L. Donnelly	Box 149, Littlefield
Collingsworth	G. P. Davis	Box 326, Shamrock	Hood	Edgar Sturdivant	Box 588, Stephenville
Colorado	T. T. Waddell	Box 171, Eagle Lake	Hopkins	John L. Jackson	Box 425, Sulphur Springs
	Leo T. Kohleffel	Box 721, Columbus	Houston	Thomas A. Hughes	Box 511, Groveton
Comal	W. F. Sumbling	Rt. 1, Box 120, New Braunfels	Howard	William H. Pratt	Box 176, Lamesa
Gomanche	Maurice S. Dry	207 W. Sadosa, Eastland	Hudspeth	Geo. W. Vickers	Box 756, Van Horn
Concho	William F. Bennet, Jr.	Box 307, Brady		N. L. Chamberlain	Box 1423, El Paso
Cooke	Lonnie R. Wooten	1812 Buck St., Gainesville	Hunt	Charles R. McCallum	Box 531, Wylie
Coryell	Hubert Lee Brooks	Box 1623, Waco	Hutchinson	Starkey V. Whitehorn	Box 103, Borger
Cottle	Alfred Weldon Fromm	Box 422, Matador	Irion	James J. White	1415 S. Van Buren, San Angelo
Crane	R. E. Miller	Pecos		Henry B. Burkett	204 Glenmore, San Angelo
	T. F. Wheelis, Jr.	Box 783, Fort Stockton	Jack	J. T. Hooten	Box 261, Jacksboro
Crockett	John A. Lockett	Box 735, Ozona	Jackson	Travis L. Hobbs	1211 N. Kleas, Edna
Crosby	Cecil Fox	Box 295, Spur	Jasper	J. W. Kincannon	Box 313, Jasper
Culberson	Geo. W. Vickers	Box 756, Van Horn	Jeff Davis	Sanford J. DeVoll	Box 698, Alpine
Dallam	Jess Felts	Box 727, Dalhart	Jefferson	R. E. Martin	Box 3112, Port Neches
Dallas	A. A. Stein	1st Floor, County Courthouse, Dallas	Jim Hogg	George W. Holbein	Box 222, Hebronville
			Jim Wells	Harvey H. Schoen	Box 393, Falfurrias
Dawson	William H. Pratt	Box 176, Lamesa	Johnson	John R. Hill, Jr.	Box 124, Cleburne
Deaf Smith	Calhoun Lovelace	Box 226, Vega	Jones	J. D. Jones	Box 401, Abilene
Delta	John L. Jackson	Box 425, Sulphur Springs	Karnes	Curtis L. Oswalt	Box 7, Beeville
Denton	J. Thomas Daniel	Box 734, Denton	Kaufman	Murrell B. Hopkins	Box 407, Kaufman
DeWitt	C. D. Edmondson	509 4th St., Cuero	Kendall	Bill Garrett	Comfort
Dickens	Cecil Fox	Box 295, Spur		E. O. Willmann	Box 363, Comfort
Dimmit	J. E. Pond	Box 401, Carrizo Springs	Kenedy	William H. Gooch	Box 653, Raymondville
Donley	Walter W. Hicks	Box 43, Memphis		Fred Lambert	Rt. 1, Box 585, Kingsville
Duval	George Holbein	Box 222, Hebronville	Kent	Wm. V. Lowry	Box 704, Jayton
Eastland	Maurice S. Dry	207 W. Sadosa, Eastland	Kerr	Jack W. Gregory	511 Josephine, Kerrville
Ector	Walter T. Rinehart	Rt. 1, Box 433, Midland	Kimble	Robert S. Evins	420 S. 16th St., Junction
Edwards	Ellis W. Martin	Rocksprings	King	Cecil Fox	Box 295, Spur
Ellis	A. A. Stein	1st Floor, County Courthouse, Dallas	Kinney	C. M. McBee	Box 213, Brackettville
			Kleberg	J. L. McDougald	523 S. Lantana Dr., Kingsville
El Paso	N. L. Chamberlain	Box 1423, El Paso		Max C. Kluge	2927 Lawnview, Corpus Christi
Erath	Edgar Sturdivant	Box 588, Stephenville	Knox	Fred Lambert	Rt. 1, Box 585, Kingsville
Falls	George E. (Jack) Schuh	308 S. Ross Ave., Mexia	Lamar	D. W. Sellstrom	Rm. 222, 1220 S. Staples, Corpus Christi
Fannin	Clarence T. Jones	Trenton	Lamb	C. T. Pittman	Box 12, Seymour
Fayette	Leo T. Kohleffel	Box 721, Columbus	Lampasas	R. H. Burks	Box 521, Paris
	T. T. Waddell	Box 171, Eagle Lake	La Salle	Patrick L. Donnelly	Box 149, Littlefield
Fisher	M. T. Reinhardt, Jr.	1409 Campbell, Sweetwater	Lavaca	Billy M. Sprott	409 E. Kerr, Burnet
Floyd	Alfred Weldon Fromm	Box 422, Matador	Lee	Russell N. Lancaster	Box 652, Cotulla
Foard	C. L. Boynton	510 W. 10th, Quanah	Leon	Emmett A. Wolfsdorff	Rt. 1, Hallettsville
Fort Bend	H. T. Mayne	Box 566, Angleton	Liberty	Paul Bogusch	Box 516, Brenham
Franklin	John L. Jackson	Box 425, Sulphur Springs	Limestone	Seth Taylor	Box 96, Normangee
Freestone	Brent Bergstrom	Box 324, Fairfield	Lipscomb	J. D. Clay, Jr.	Box 803, Liberty
Frio	Frank W. Smith	Box 32, Pearsall	Live Oak	George E. (Jack) Schuh	308 S. Ross, Mexia
Gaines	Noel J. Head	Box 991, Seminole		P. D. Moseley	Box 337, Canadian
Galveston	J. W. Worthington	Box 113, High Island	Llano	B. C. Peebles	Box 24, George West
	George B. Killebrew	Box 24, High Island	Loving	F. C. Henze	Box 675, Mathis
	R. Z. Finchum	2313 Ave. J, Galveston	Lubbock	J. C. Moore	Box 283, Llano
	(pollution only)		Lynn	Robert E. Miller	Box 343, Pecos
	C. J. Hale	Box 307, La Porte	Madison	William V. Riddle	2608 37th St., Lubbock
Garza	Wm. V. Lowry	Box 704, Jayton	Marion	William V. Riddle	2608 37th St., Lubbock
Gillespie	Adolph Heep	Box 66, Fredericksburg		Seth Taylor	Box 96, Normangee
Glasscock	W. H. Pratt	Box 176, Lamesa	Martin	Bill Belote	Box 209, Jefferson
	Walter T. Rinehart	Rt. 1, Box 433, Midland	Mason	T. C. Browning	Rt. 2, Caddo Lake, Karnack
Goliad	W. D. Henry	Goliad	Matagorda	Wm. H. Pratt	Box 176, Lamesa
Gonzales	Emmett Wolfsdorff	Rt. 1, Hallettsville		D. V. Williams	Box 576, Mason
Gray	Jack Woodford	Box 26, Miami		Harold W. Martin	Box 1426, Bay City
Grayson	Chas. H. Lawrence	Rt. 1, Pottsboro		C. F. Ray	Box 1346, Bay City
Gregg	Bert G. Cade	Box 85, Henderson			
	R. G. Goss	Box 651, Kilgore			
Grimes	Robert Lys	Box 604, Navasota			

County	Warden	Address
Maverick	C. M. McBee	Box 213, Brackettville
Medina	August Timmerman	2106 Ave. U, Hondo
	L. D. Nuckles	Castroville
Menard	W. G. Craig	Box 776, Menard
Midland	Walter T. Rinehart	Rt. 1, Box X-33, Midland
Milam	Ross Seale	202 Norwood Lane, Hearne
Mills	Junior L. Briggs	Box 275, San Saba
Mitchell	Malcolm T. Reinhardt, Jr.	1409 Campbell, Sweetwater
Montague	Lonnie Wooten	1812 Buck St., Gainesville
Montgomery	Chas. V. Kincannon	Box 188, Conroe
Moore	Starkey V. Whitehorn	Box 103, Borger
Morris	Wardlow Northam	Box 431, Mt. Pleasant
Motley	Alfred Weldon Fromm	Box 422, Matador
McCulloch	Wm. F. Bennett, Jr.	Box 307, Brady
McLennan	Hubert Lee Brooks	Box 1623, Waco
	Harley Berg	2316 Lasker, Waco
McMullen	Bill Ray Hoyle	Box 23, Tilden
Nacogdoches	James Rix Duke	213 Muller, Nacogdoches
Navarro	Fred L. Gilliam	Box 746, Athens
Newton	J. W. Kincannon	Box 313, Jasper
	Joe B. Murphy	Buna
Nolan	Malcolm T. Reinhardt, Jr.	1409 Campbell, Sweetwater
Nueces	Max C. Kluge	2927 Lawnview, Corpus Christi
	J. L. McDougald	523 S. Lantana Dr., Kingsville
	Dave W. Sellstrom	Room 222, 1220 S. Staples, Corpus Christi
Ochiltree	P. D. Moseley	Box 337, Canadian
Oldham	Calhoun Lovelace	Box 226, Vega
Orange	Olan H. Davis	County Courthouse, Beaumont
	George Miller	3126 6th Ave., Port Arthur
	Raymond E. Martin	Box 3112, Port Neches
Palo Pinto	Leon Stowe	Box 265, Graford
	W. T. Harris	Box 284, Mineral Wells
Panola	Joe Riggs	Box 181, Carthage,
Parker	J. R. Hill, Jr.	Box 124, Cleburne
	Harold A. Bierman	3rd Floor, County Courthouse, Fort Worth
Parmer	Patrick L. Donnelly	Box 149, Littlefield
Pecos	T. F. Wheelis, Jr.	Box 783, Fort Stockton
Polk	J. C. Manning	Box 214, Livingston
Potter	Lake L. Black	829 Maryland St., Amarillo
Presidio	Sanford J. DeVoll	Box 698, Alpine
Rains	Carson L. Seago	Box 687, Quitman
	M. B. Hopkins	Box 407, Kaufman
Randall	Woody Pond	Box 801, Canyon
Reagan	Clarence D. Vann	Box 202, Big Lake
Real	Chas. F. Keller, Jr.	Box 212, Leakey
Red River	Oma Puckett	Box 132, Annona
	C. W. Burnette	1014 W. Washington, Clarksville
Reeves	Robert E. Miller	Box 343, Pecos
Refugio	Curtis L. Oswalt	Box 7, Beeville
	M. B. Mullinax	Box 274, Rockport
Roberts	Jack Woodford	Box 26, Miami
Robertson	Ross Seale	202 Norwood Lane, Hearne
Rockwall	A. A. Stein	1st Floor, County Courthouse, Dallas
Runnels	J. J. White	1415 S. Van Buren, San Angelo
	Henry B. Burkett	204 Glenmore, San Angelo
Rusk	Bert Cade	Box 85, Henderson
Sabine	R. C. Nichols	Hemphill
San Augustine	George E. Berry	Rt. 2, San Augustine
	J. R. Duke	213 Muller, Nacogdoches
San Jacinto	Lewis C. Hallum	Box 973, Huntsville
San Patricio	Franklin C. Henze	Box 675, Mathis
	Curtis L. Oswalt	Box 7, Beeville
	Earl Sloan	Box 247, Aransas Pass
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	Henry B. Burkett	204 Glenmore, San Angelo
Stonewall	William Victor Lowry	Box 704, Jayton
Sutton	Nolan W. Johnson	Box 5481, Sonora

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Swisher	Woody Pond	Box 801, Canyon
Tarrant	Harold A. Bierman	County Courthouse, Fort Worth
Taylor	John D. Jones	Box 401, Abilene
Terrell	T. F. Wheelis, Jr.	Box 783, Fort Stockton
Terry	Noel J. Head	Box 991, Seminole
Throckmorton	Harry B. Iverson	Box 176, Throckmorton
Titus	Wardlow Northam	Box 431, Mt. Pleasant
Tom Green	James J. White	1415 S. Van Buren, San Angelo
	Henry B. Burkett	204 Glenmore, San Angelo
Travis	Gene Ashby	Star Route 7, Box 213, Austin
	Ben F. Gaddy	604 Josephine, Austin
	Grover S. Simpson	6207 Shoalwood, Austin
Trinity	Thomas A. Hughes	Box 511, Groveton
Tyler	J. B. Weaver	Box 434, Woodville
Upton	Robert B. Jesse	Box 366, Gilmer
Uvalde	C. D. Vann	Box 202, Big Lake
Uvalde	Raymond E. Custer	Uvalde
Val Verde	J. B. Phillips	103 Lilac Lane, Del Rio
	John A. Lockett	Box 735, Ozona
Van Zandt	Murrell B. Hopkins	Box 407, Kaufman
Victoria	C. D. Edmondson	509 4th St., Cuero
	W. D. Henry	Goliad
Walker	Lewis C. Hallum	Box 973, Huntsville
Waller	E. E. Hargett	Box 95, Bellville
	Robert Lys	Box 604, Navasota
	Robert E. Miller	Box 343, Pecos
Ward	Paul Bogusch	Box 516, Brenham
Washington	C. D. Whinton	417 Matamoras, Laredo
Webb	Harold W. Martin	Box 1426, Bay City
Wharton	C. F. Ray	Box 1346, Bay City
	G. P. Davis	Box 326, Shamrock
Wheeler	W. C. Cave	2012 Elizabeth, Wichita Falls
Wichita	Morris E. Stallcup	3114 Sherwood, Wichita Falls
Wilbarger	C. L. Boynton	510 W. 10th, Quanah
Willacy	Wm. H. Gooch	Box 653, Raymondville
Willamson	Aubrey J. Shaw	Box 12, Georgetown
Wilson	F. E. Hollamon	Box 825, Seguin
Winkler	Robert E. Miller	Box 343, Pecos
Wise	J. T. Hooten	Box 261, Jacksboro
	J. T. Daniel	Box 734, Denton
Wood	Carson L. Seago	Box 687, Quitman
Yoakum	Noel J. Head	Box 991, Seminole
Young	N. E. Glover	Box 269, Breckenridge
	Harry B. Iverson	Box 176, Throckmorton
Zapata	Harvey R. Adams	Box 192, Zapata
	Raymond H. Davee	Zapata
Zavala	J. E. Pond	Box 401, Carrizo Springs



Those Game and Fish boys think of everything.

Stocking Smallmouth Bass Planned for Llano River

Experimental introduction of smallmouth bass into Texas has been tentatively approved as a Federal fisheries aid project, reports Marion Toole, Chief Aquatic Biologist for the Game and Fish Commission.

The site for the release next spring of "the fightingest fresh water fish" is the Llano River above Junction and between that area and the river's headwaters. This stretch is spring fed and has had water despite the worst drought in history.

The state experimented with smallmouth bass propagation twenty years ago and did succeed in producing some spawn in hatcheries. But after the young smallmouths were planted in lakes and streams they were never seen again. The advent of fishery biologists with their vast research programs revealed that smallmouth bass thrive only in fresh water streams and lakes with solid

Did you ever consider cooking an armadillo?

Game Recipes

Continued from page 13

One of the most common of these animals is the racoon. It can be stewed, fried, roasted or barbecued. To prepare a 'coon for cooking, first skin and clean it thoroughly. Remove the glands in the muscles of the arm pits and between the legs. This can be easily done by cutting open the muscles slightly.

To fry 'coon, a young 'coon should be used, the meat cut into small pieces suitable for frying, placed in a bowl and covered with milk. Let stand for about 30 minutes, then roll in seasoned flour and fry the same as for chicken.

For barbecued 'coon, the meat should be parboiled until tender, but not to the point where the meat is loosened from the bones. Remove rock or large gravel bottoms and that areas conducive to silt or mud, are deadly to them.

The only stream studied that offers a possibility of the survival of smallmouths is the Llano.

from the water, drain, then place on a grate over wood coals or charcoal. Baste frequently with any desired barbecue sauce. Let cook slowly until well browned and saturated with sauce.

Another common animal in the Southwest which may be used for food is the armadillo. In the Big Thicket region in Texas it is quite popular when prepared as sausage. Most rural people prepare the sausage by following their recipes for pork sausage. Armadillo can also be prepared as a roast, first placing the cleaned animal in a large pot and covering with water. Add a couple of pods of red pepper and salt to taste. Parboil the meat until it is tender. Remove from the pot and place in a baking pan; sprinkle with black pepper and flour. Roast as for other meats, basting frequently with stock. Cook until well browned.

Young armadillo can be fried, following the recipe for fried racoon, and is relished by many as an excellent dish.

Some of our readers have requested a recipe for soft-shelled turtle, so we offer one for your approval.

Select a turtle 12 inches in length or longer. Cut off under shell and clean. Skin the meat out of the back shell similar to skinning an armadillo. Turtles consist of both light and dark meat, both being quite edible, and can be prepared as a soup, stew, or fried.

For turtle soup, the preparation is the same as for any soup or stew. Most vegetables are used, including potatoes or rice, and onions. Season to taste.

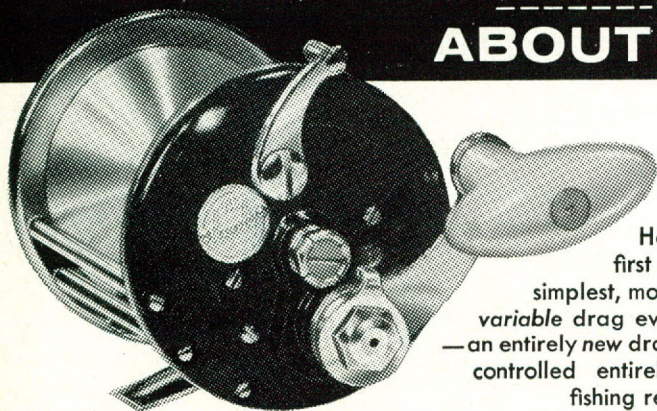
To fry, cut the meat in small pieces. Dip in corn meal or in beaten egg and roll in flour. Cook in deep fat until brown.

These recipes are intended merely as suggestions. There are a lot more meats which are edible and very tasty, such as muskrat, o'possum, and rattlesnake. If you would like to have some recipes for these, or if you have others that you feel might be of interest to our readers, let us know.

Meanwhile, Good Eating!

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Winter Bird Feeding Will Produce a Better Fall Game Bird Crop


The next two months are critical times for game birds in many sections. Heavy snows have covered natural food supplies in some areas and in many sections of the State additional food must be furnished by sportsmen and conservationists if adequate breeding stock is to be maintained. Many clubs have established game bird feeding programs, and the worth of these activities is proved by an ample game supply during the following open season. A hungry bird soon becomes weakened and a weak bird cannot survive winter's hardships.

Be sure to arrange your feeding stations so that the birds have easy access and also a good chance for a quick escape. Vermin soon learn the location of places to which game birds are attracted and a badly constructed station sometimes does more harm than good.

Always establish the stations in places where game is known to range. Be sure that they are close to protective cover so that if the birds are disturbed by vermin or otherwise they can gain safety quickly. Too much importance cannot be placed on this.

Visit the stations regularly, replenishing the food supply. This will allow you to see whether or not they are being used. If they are not being used, move them to another location. Build the stations out of weather-beaten wood, if possible, as game birds have a tendency to shy away from anything new or brightly colored. Try to make them a part of the landscape and better results will be obtained. Never place them more than 75 yards from protective cover.

Feed the game birds this winter and they will give you much pleasure next fall.

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A bird famous through history for his speed and agility

Duck Hawk

• Continued from page 5

Birds seem to "sense" when a falcon is hunting, much like big-game animals can tell when a lion is out for the kill. Ducks around water holes will only scramble out of the way when a duck hawk comes in for water after it has already fed. They do not seem afraid, yet when a falcon is hunting every bird will quickly scurry to cover.

Duck hawks often seem to chase other birds just for fun or to perfect their skill in the chase. I have observed them many times flying only a foot or two in back of a terrified duck as it dives for the protection of the water. They break off the attack just before the duck strikes the water only to flare back into the sky and repeat the same operation as the next duck flock comes into view. Such attacks definitely appear to be playful, since an adult falcon seldom misses its prey when it attacks from high overhead.

Another instance of playfulness was observed near the shores of Laguna Madre in Cameron County, where extensive salt flats stretch for miles. Some flats are two miles wide in places and are separated by low ridges covered with brush. Coyotes inhabit the area in abundance and often may be seen crossing the salt flats.

In December of 1950 while I was sitting on one of these ridges watching flights of redhead ducks going to and from fresh water I noticed a duck hawk making a shallow dive toward a wide salt flat. By following the direction of its dive, I saw a coyote trotting across the flat.

In its first pass the duck hawk struck the coyote on the back from behind at high speed. Without slowing its flight it immediately pulled up, did a complete loop, and struck

the bewildered coyote again in the same spot. This time the hawk pulled up, hovering about 30 feet above the coyote. When the coyote began to run the hawk made repeated attacks on his hindquarters, until he turned to fight, then broke off the attack and hovered above him until he ran again. As the thoroughly bewildered animal ran he was attacked repeatedly until he reached the safety of the brush.

On several occasions while making waterfowl counts along the Texas coast in a light plane, I have seen duck hawks leave a perch on a dead snag and fly an intercept course toward the plane. Flying low over the sand they await the proper moment then shoot upward toward the plane, often coming so close you can see their out-stretched feet as they attempt to attack it. These falcons were not just investigating, they were streaking in for the kill.

The duck hawk's beauty, its supreme flying skill and absolute fearlessness have earned him a place in men's hearts where he will never be forgotten. It is little wonder that he was chosen as the finest of hawks for the sport of falconry and in the old days could only be owned by noblemen.

Fortunate indeed, is he who has known the thrill of watching a duck hawk on the wing. Courage, skill and freedom are not better exemplified.

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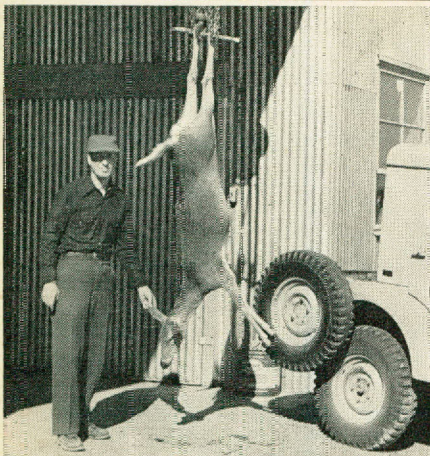
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There were three doe deer feeding behind me

Doe No. 1361

Continued from page 7



Author with now famous Doe No. 1361.

I decided on the way out I would really get the low-down on this hunt.

"Mr. Price, are there really any deer to speak of in these woods?" I asked.

"Why what do you mean, man?" he answered, "There are deer all over this place."

That was simply inconceivable to me, but Mr. Price went on to say that within six years, since 1949 when the preserve was first stocked, there were now over 1100 deer on this preserve!

I was amazed at this. To think that within such a short period of time just a few deer could increase to as many as 1100. Mr. Price went on to explain that the deer had increased so rapidly that *over-population* was now quite a problem—so much so that the Game Department

was having these special hunts, in order to reduce the *excess*.

I could hardly believe my ears. Here was a man not just telling about a lot of deer, but an *over-population* and an *excess* of deer, in an area where deer were supposed to be finished years ago. I was still very skeptical about the whole thing.

It was still dark when we got to the place where I was supposed to go into the woods. This place was marked by two white streamers. There were single white streamers hung at intervals of 50 feet to where the stand was marked by a tree with a lot of white streamers wrapped around it, and a number. In this immediate vicinity there was a blind, constructed by the Game Department. That's where I was supposed to hunt.

By daylight, the woods began to come alive, and I could hear all kinds of small noises, some of which indicated to me that there were deer feeding in the vicinity.

I had trouble keeping still—partly because of a very chill north wind—and partly because of the realization that I was practically surrounded by deer. After all, 1100 deer!

But those deer were not going to make it too easy for me. One hour went by. Then two. And after a while I didn't even hear the little noises any more. I was beginning to think that Mr. Price was sort of pulling my leg about all those deer,

when I heard a very slight movement right in behind me.

I turned very slowly, and in a few moments I made out three doe deer through the trees, about 75 or 80 yards away. They were feeding, apparently unaware of my presence.

I noticed that one of them was an exceptionally large doe, and so I thought "You better take that one—you might not see another one all day."

Every time I moved even so slightly, the deer's head would bob up, but I finally worked my gun up to my shoulder and fired. The deer lurched forward a few steps and went down. Good old 270 pointed soft point. The 130 grain bullet had struck right behind the shoulder.

I still felt a little guilty when I went over to look at this deer—on account of it being a doe. But when I examined the deer more closely, I was even more uneasy. It had a tag in its ear—bearing No. 1361.

"Oh great guns," I thought, "I bet I've done it now. This is probably some kind of very special deer."

It was a kind of very special deer all right. When I got to the headquarters, Mr. Marsh told me it was one of the original deer released in this area.

"Just think," he said, "this was one of the original deer that all these 1100 came from."

"Well, I guess it's too bad," I said, "that I should have killed one of the original deer."

"Oh no," he said. "That's all right. In fact," he went on to say, "that is the whole idea of this hunt. To kill off the surplus deer. Unless this surplus is killed off, they will die some other way and be wasted."

Any one would have thought I had killed a prize buck—the old bull of the woods—for the amount of attention given to that doe. It was by far the most photographed of all the deer killed that day.

This then is the story of Doe No. 1361. But that's not all the story. The real story is what good habitat and good management will do, in the way of bringing deer back. Doe No. 1361 is gone—but the story does not end there. It's just the beginning, in fact, of what promises to be a long era of good hunting in this area. **

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Deer and Javelina were harvested at Black Gap

1 in 13 Were Chosen

Continued from page 17

killed javelinas but no deer. The kill figure for this species does not indicate the abundance, for many hunters passed up a chance to kill a javelina. Some reasoned that extra shooting would hurt their changes to get a deer while other hunters did not care for the meat. Those animals brought in weighed, on the average, 30 pounds—hog dressed.

As the hunters arrived, each was given a map of the area and briefed on the hunt. Individuals and parties of hunters were then assigned to specific camp sites and the boundaries of their respective hunting areas were pointed out. In most cases existing roads, bluffs, and creeks were used to define each area. Drinking water and firewood had been placed at each camp site beforehand.

All deer, when brought in, were weighed, aged, measured for antler size, and the general condition not-

ed. When possible, hunters brought in stomachs, and a sample of each was taken for content analysis. These data collected will prove valuable keys to the management of the area.

The majority of deer were found to be in good condition, in fact, some were very fat. The heaviest buck, killed by Mr. E. B. Sanders of Lockhart, hog dressed 165 pounds. The lightest weighed 58 pounds with the average weight 110.3 pounds. Mr. S. W. Bishop of Midland brought in the largest antler spread which measured 27½ inches. The deer weighed 161 pounds. A number of deer were in the 150-pound class.

The 38 per cent success came as a surprise to all. Many hunters had never hunted before, while others had hunted deer but had never been successful. Hunters ages ranged from 17 to 70 years old. The high percent-

Inland Drought Affects Texas Oysters

Prolonged drought is gravely harming oysters along the Texas coast right at the time when the industry had begun a substantial rally, said C. W. Reid, Director of Coastal Fisheries for the Game and Fish Commission.

He quoted a report based on a study by Bob Kemp, Assistant Director, stating that in the bays ordinarily favorable to oysters the salinity content has almost doubled, with the likelihood the salinities in the isolated back bays will continue to rise until diluted by a heavy runoff from the watershed.

"Most of the young oysters, called spat, have probably already succumbed to the excessive salt conditions," said Reid. "Many of the mature oysters are in very poor condition. Last year's oysters appeared to be making a comeback, after several years of declining production. Now it appears that this year's crop will be small and will be even

smaller next year."

"Rockport, for example, recorded only 17.85 inches of rainfall for 1956, while the average annual rainfall for the area is 31.32 inches.

"Oysters in the Galveston Bay area, the major producing area on the Texas coast, are showing signs of suffering from the drought, although conditions are not yet as severe as in the Rockport area. Many organisms harmful to oysters such as conchs and boring sponges, are invading the fine reefs in Galveston Bay, where under normal low salinity conditions they could not survive.

"But the drought alone isn't responsible for the plight of the oyster. More large reservoirs are being built on Texas rivers each year, holding back great quantities of water. Add to that the tremendous increase in water use by rice farming and industry, and it leaves very little water to flow into the bays and keep them fresh."

age of success would have surprised no one, had all the participants been veteran hunters, but even for veterans to match wits with the canny mule deer in the rugged Black Gap terrain and come home with a buck is no cinch. Whatever might have been lacking in hunter experience was made up in sportsmanship. One creditable individual brought in a spike buck knowing that he would have to pay a fine, and others who wounded deer were persistent in their efforts to obtain their kills. Six deer however were not found, although this could be expected from so large a group.

Of interest were two bucks living inside a 640-acre tract enclosed by a seven-foot fence. From two to four people per day hunted the area but bagged only one of the deer. For six days the other crafty "moss back" eluded the hunters to come out unscathed and remain among the living. So, what was first thought to be the best hunting area turned out to be the poorest of all.

Several factors are responsible for the high kill. No doubt the later season, which found the bucks just beginning to rut, was of importance. The previous season was from November 20 to 25, inclusive. Also, the fact that more people were hunting the range at the same time is to be considered. It is believed that more disturbance caused deer herds to move about and thus be seen. Weather during the hunt ranged from mild to cold, but no difference in hunter success because of this factor was noted. Colder weather, however, did prove necessary to prevent spoilage of the kill.

Continued on page 30

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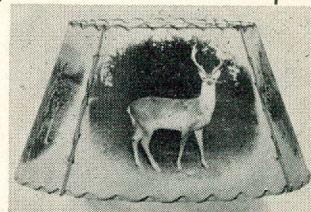
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Rainfall during the year of 1956 measured only 4.95 inches. This is 3.5 inches below the normal, in fact, the normal has not been attained for the past five years.

One might not expect a substantial deer population under these conditions. On the contrary, deer are thriving, and an estimated 80 per cent fawn crop was raised this year. Since the Black Gap came under the management of the Texas Game and Fish Commission in 1949 there has been little grazing by livestock. Beneficial wildlife management techniques have been employed. These include the establishment of 35 strategically located watering sites and the reseeded of much of the area. Watering devices, such as metal rainwater catchments and cement header dams, are planned for the more remote areas. Pits, made with a bulldozer, retain surface runoff assuring penetration. Some 15,000 of these depressions, measuring eight feet in width and 20 inches deep, have been built and seeded to Johnson grass, sand dropseed, and sunflower seed. Some areas not heavily grazed by deer stand waist high in grass at the present time.

Soon after the Black Gap was purchased approximately 300 mule deer were trapped, ear-tagged, and released on the area for restocking purposes. Present populations can hardly be attributed to these efforts, however, for under existing con-

ditions native deer herds have more than furnished sufficient broodstock. Since the release of the deer, many have drifted away to whence they came. Twelve were retrapped on the West Pyle ranch in Terrell County, 100 miles away. At least that many have been killed and their ear tags sent in by hunters from adjoining ranches.

During this hunt only one tagged deer was taken. This aged deer was trapped in 1950. When dressed out it weighed 108 pounds but was in good condition.

During the hunt, two hunters excitedly related seeing two mountain lions but did not get a shot at them. In addition, one bobcat and one coyote were seen and the tracks of two other mountain lions were observed in isolated regions. Six mountain lions have been caught on the area as a result of a predator control program established two years ago.

Although the Black Gap was not intended as a public hunting ground, it is believed that in future years the annual kill can be greatly increased and thus provide more sport for Texas hunters. It could never satisfy the vast army of hunters who buy licenses each year. The Black Gap Management Area can, however, illustrate to interested landowners who raise the game, many useful and proven techniques which could in the long run influence the harvest elsewhere.

But the important thing to most

Boone & Crockett Club Compiles Trophy Data

Five men are now serving Texas as official measurers for record North American big game trophies. Trophies are eligible for the record book regardless of the year killed, and the Boone and Crockett Club which compiles official figures, invites owners of outstanding trophies to have them measured and recorded.

Information and blanks may be obtained from the Boone and Crockett Club, 5 Tudor City Place, New York 17, or from one of the official measurers—Walter B. McClurkan, 210 McClurkan Building, Denton; Dr. F. W. Miller, Dallas Museum of Natural History, Fair Park, Dallas; Milroy Powell, Center Point; Dr. Clarence Cottam, Welder Wildlife Refuge, P. O. Box 1104, Sinton; or L. F. Nowotny, 1405 Broadway, San Antonio.

The Club has announced that a limited number of folders listing pictorially the winners of Big Game Competitions in recent years are available at \$1 each. Available are folders for the 1955, 1951, and 1950 Competitions. Please state year wanted.

No competition will be held for 1956.

hunters today is a place to hunt. If a hunt is conducted this year on the area it will be interesting to see how many choose the Black Gap. The hunters voiced their approval of the 1956 hunt and concluded that their time had been well spent. The odds of getting to come to the Black Gap should be even greater for more people will apply. This past year they were 13 to 1. **



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Coastal Goose Numbers Present Feed Problems

A press dispatch from Canada referring to growing overpopulation of snow geese gave emphasis to the contention by Howard Dodgen, Executive Secretary of the Texas Game and Fish Commission, that bag limits on snow geese should be increased.

The Canadian report, quoting a provincial authority, stated the snows were so numerous in the summer nesting areas that food was insufficient, thus exposing the flocks to weakness and ultimate disease and starvation.

Dodgen said field reports from the Texas Gulf coast wintering areas have, for some time, indicated that the snows were far too numerous.

"Our main complaint," he said, "is that the snows, and also the blue geese, eat food that should be at least shared with the more desirable goose species such as Canadas and speckled bellies."

Reports from the coastal areas indicate that the snow goose concentrations are greater than ever before.

Antlerless Deer Hunts Need Rancher Support

Antlerless deer hunting was first urged by Commission biologists, some 14 years ago as a means of reducing surplus deer populations to the carrying capacity of the range. After ten years of research and a concentrated public education program the prejudice against killing doe deer was finally overcome.

A bill granting regulatory authority to the Game and Fish Commission in three "hill country" counties was passed by the Legislature. That was four years ago. Since that time antlerless deer harvests have been held in nine counties in various parts of Texas.

In 1953, 1,136 permits were issued. Only 946 antlerless deer were harvested. In 1954, 8,999 permits were issued and only 3,329 antlerless deer were harvested. In 1955, 6,011 permits were issued and only 2,500 antlerless deer were harvested. During the past season over 6,000 permits were issued and less than 3,000 antlerless deer were harvested. In all, something like 22,000 permits have been issued during the four-year period. Landowners allowed only about 9,675 antlerless deer to be harvested.

The Game Department issued fewer permits than the number of deer which should have been removed from the range due to the fact that some landowners would not participate in the program. Many more permits could have been issued if the landowners had applied for them. Some landowners who did not favor the program took the total number of permits that could be issued for their property and then refused to issue them to hunters. They did this hoping to deprive other ranchers of their share of the permits, thus reducing the antlerless deer kill. Others took the permits and issued only a few of them to friends or relatives.

For the program to work properly and reduce the surplus deer, every permit issued should be used to kill an antlerless deer. Ranchmen who fail to remove surplus deer are working against themselves since surplus game as well as surplus livestock further destroy the range and make rebuilding of the deer herd impossible. In times like these most ranchmen cannot afford to further destroy their valuable deer herds through die-offs or further reduce the range carrying capacity.—W.S.J.

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Things You May Not Know

The Alaskan brown bear is the size of a rat at birth. Cubs are usually born while the mother is denning up for the winter and when she leaves the den, they weigh 15 to 20 pounds.

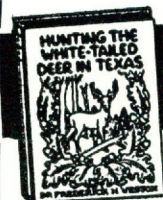
Woodpeckers are found around the world, except Australia and Madagascar. About 300 species are known.

To Europeans the plover is the "rain bird" because of its habit of scolding before rain. The name "Plover" is derived from "pluvia," the Latin word for rain.

Two species of wild swan are native to America, the Whistling Swan and the Trumpeter Swan.

The pocket gopher is one of the few animals that can run backward as fast and as easily as it can move forward. Here its tail serves it in good stead as it is endowed with tactile organs, enabling the animal to feel its way around underground when it moves in reverse.

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THE UNDERWATER GUIDE TO MARINE LIFE by Carleton Ray and Elgin Ciampi. 338 plus xiii pages generously illustrated with 16 full color plates of photos and paintings, numerous black and white photos, and many drawings by Teiji Takai. Published 1956 by A. S. Barnes & Co., 232 Madison Ave., New York 16, N. Y. \$8.75.

This beautifully-illustrated book provides an introductory yet full-scale look at the sea and its inhabitants. Despite its wide scope, the amount of detail is surprising.

The first of three sections describes the evolution and nature of the sea, how its characteristics function as an environment for its inhabitants, and the relationship between man and the sea. Included are two chapters offering helpful hints on diving, spearfishing, and underwater photography.

The second section classifies and describes the plants and invertebrate animals of the sea and the third section the lesser fishes, the bony fishes, and the "re-entrants," including the turtles and mammals. All species described are residents of North American coastal waters.

The writers, both thoroughly experienced shallow-water divers and un-

derwater observers, have brought scientific classification and identification ingeniously into focus for the layman, adding an unusual and valuable touch to the book. It is further enhanced by the many superb color illustrations and drawings.—T. M.

AMERICAN WATER AND GAME BIRDS by Austin L. Rand. 239 pages abundantly illustrated with 127 full color photos on 64 plates, 40 black and white photos on 16 plates, and numerous silhouette drawings. Published 1956 by E. P. Dutton & Co., inc., 300 Fourth Ave., New York 10, N. Y. \$11.50.

The most notable feature of this big, handsome book is the superb collection of photographs, the majority of them in full color. These photos, selected from the works of thirty outstanding bird photographers in cooperation with the National Audubon Society, make this one of the most beautiful bird books ever published.

The text is divided into 35 chapters, and water birds and upland game birds are discussed by family groups and individual species. The material, although not detailed, is well organized, interestingly written, and covers description, general life habits, range

and migration routes, and interesting characteristics.

The author, Chief Curator of Zoology for the Chicago Natural History Museum, skillfully slants his writing for consumption of the layman observer and outdoor sportsman. And although the book is not designed as a scientific reference book, it is well-filled with accurate, interesting facts.—T. M.

THE HEART OF THE HUNTER by Edison Marshall. 328 pages illustrated with black and white chapter drawings by R. M. Powers. Published 1956 by McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York 36, N. Y. \$4.75.

Edison Marshall, well known author of such books as *Yankee Pasha* and *Gypsy Sixpence*, tells the story of his hunting adventures, from his eleventh birthday when he received his first gun—a .22 with which he learned to hunt rabbits—over a period of thirty-five years. During this time he hunted everything from rabbits and ducks (which are still his favorite game) to big game animals, on three continents of the world. Lion and rhino in Africa, caribou and bear in the North Woods, tiger and buffalo in Asia, and other noted big game animals have all been hunted during his career.

Written in the same easy, entertaining style that has placed so many of Marshall's books on the best-seller list, this book provides an insight into the hunter, as well as entertaining reading of accounts of high adventure.—J.R.

PLASTER CAST YOUR FISH. Illustrated booklet published 1956 by Plaster Cast Hobby, 751 Connors Lane, Stratford, Conn. \$1.

This interesting "hobby" booklet shows in detail, with many helpful illustrations, how you can cast a fish in plaster to keep as a trophy or decorative wall plaque, book end, or other showpiece. Materials necessary are listed, and directions are clearly given, step by step.—T.M.

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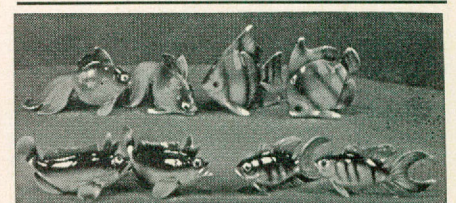
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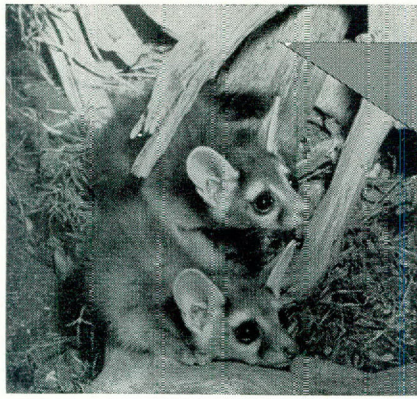
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Junior Sportsmen

Wildlife Looks To You

For Help

By

BOB MEYER

Supervisor Conservation Education

Note to Our Junior Sportsmen:

This is your page! If you have a question about wildlife, or a picture that you are proud of mail it to us. Your letter or wildlife snapshot may be used in the next issue.

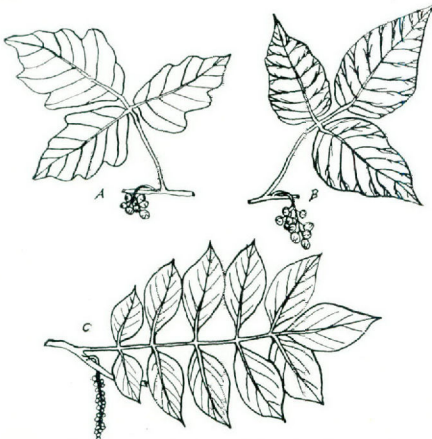
Letter of the Month:

Dear Mr. Meyer:

We are studying plants in our Vocational Agriculture class. I have been assigned to report on three of the common poisonous plants. I need information on poison oak, poison ivy and poison sumac. If you could send me a little sketch and information on these three plants I would appreciate it very much.

Richard Moore
Dickinson, Texas

Perhaps other Junior Sportsmen are interested in these three poisonous plants. Let's see if you can identify them from the sketches below:



(A) Poison Oak; (B) Poison Ivy; (C) Poison Sumac

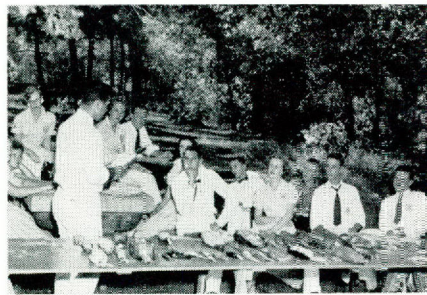
One or more kinds of poison ivy or poison oak occur in abundance in almost every part of the United States. Poison sumac is of more limited distribution and occurs chiefly east of the Mississippi River, usually in swampy regions. There is a trace of poison sumac found in southeast Texas.

The common poison ivy or poison oak may be considered a vine or shrub in its most typical growth habit. However poison sumac grows as a coarse woody shrub and never in the vine-like

form of its poison ivy relatives.

Poison-ivy is the predominant type of this gruesome threesome found in Texas.—B.M.

This Month's Who's Who:



This picture was taken while Edwin Cooper, Wildlife Conservation Specialist, was giving a talk to a group of 4-H boys and girls. They were learning to identify and to know the interesting characteristics of some birds and mammals of Texas. This group of boys and girls is part of a larger group which was in Bastrop during last August at the annual State 4-H Leadership Laboratory at Bastrop State Park.

Project:

Recently our attention was called to the fact that Texas reportedly has no Big Trees! Yes, that's right. AMERICAN FORESTS Magazine recently completed a roundup of the biggest trees of each of the species in the various states in the Nation. Texas was represented only once—and that entry had been submitted by a native of California!

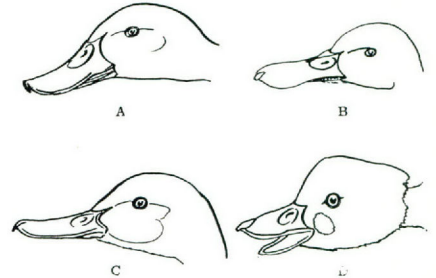
In a letter to this office, H. M. Brennecke of Woodstown, New Jersey, says, "I think this matter should be brought to the attention of Boy Scouts, all hunters and fishermen, state forest commission, and all other interested persons. With a little cooperation, Texas could be well represented in the next roundup of big tree champions."

It is a commonly-held belief that Texas has no trees, yet Texas stands second only to Florida in the number of native species.

If there are any really huge trees in your area, here is your chance to do Texas a good turn. Send the information on the name of the tree, both

WILDLIFE QUIZ:

Can YOU name the birds pictured below correctly?



How many of the following questions can you answer?

1. The——is the smallest bird in the world.
2. The——is the largest bird in the world.
3. The——is one of our fastest birds.
4. The——is the only bird that is able to fly both forward and backward.
5. The——is believed to be the bird with the longest life span.
6. The——is the smallest dove in Texas.
7. The——is the largest game bird in Texas.
8. The——is the smallest duck of the duck family.
9. The——goose is the largest of the geese.
10. The——woodpecker is the smallest woodpecker in Texas.

Answers:

- (A) Ruddy Duck; (B) Shoveler Duck
(C) Mallard Duck; (D) Goldeneye Duck
(1) Hummingbird (7) Turkey
(2) Ostrich (8) Green-winged
(3) Duck hawk teal
(4) Hummingbird (9) Greater
(5) Parrot Canada
(6) Ground Dove (10) Downy

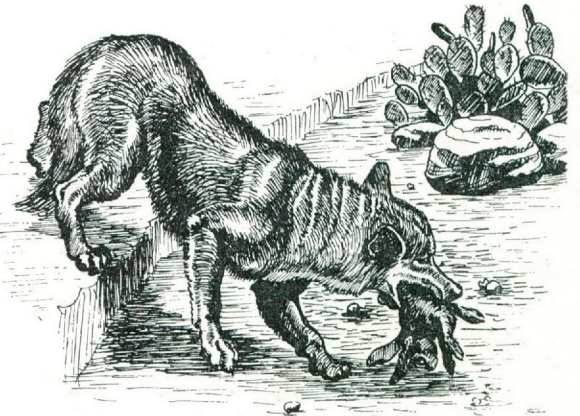
common and scientific, and the exact dimensions of both height and circumference to the AMERICAN FORESTS Magazine, 919 17th Street, N.W., Washington 6, D. C.

COYOTE



SAGE BRUSH, PRAIRIE SAND, AND MOONLIT SKY WOULD HARDLY FORM A COMPLETE PICTURE WITHOUT THE SONG OF A LONESOME COYOTE. TO HIS LIFETIME MATE THE COYOTE'S MOURNFUL WAIL MAY BECOME A "CALL TO DINNER", INVITING HER TO SHARE THE UNFORTUNATE JACKRABBIT WHICH WILL BE THE MAIN COURSE. ALTHOUGH MAN HAS FOUGHT THE COYOTE WITH TRAPS, GUNS, AND POISON FOR CENTURIES, THE SLY LITTLE CARNIVORE HAS HELD HIS OWN AND ACTUALLY EXTENDED HIS RANGE TO AS FAR NORTH AS ALASKA. LITTLE BROTHER TO THE TIMBER WOLF, THE COYOTE PREFERS TO LIVE ON THE OPEN PRAIRIE. HE HAS GREAT ENDURANCE AND CAN SET A MILE-LAPPING PACE WITH WHICH HE COVERS A VAST EXPANSE OF WILDERNESS IN A DAY'S TIME.

LIFE ON THE RANGE HAS TAUGHT THE COYOTE TO EAT WHATEVER HE CAN FIND, INCLUDING RABBITS, RODENTS, BIRDS, CARRION, LIZARDS, PRICKLY PEAR APPLES, AND AN OCCASIONAL LAMB OR PIG. HE HAS DEVELOPED A GENIUS FOR OUTWITTING HIS PREY— EVEN EMPLOYING THE ART OF TEAMWORK IN HIS HUNTING.



WALTON CUDE

A PAIR OF COYOTES WILL OFTEN TUNNEL IN THE EARTH TO PROVIDE A HOME FOR THEIR AVERAGE LITTER OF 5-7 PUPS. A SHORT TRAINING PERIOD— AND THE PUPS LEARN TO FEND FOR THEMSELVES. GENERALLY SPEAKING THE DAMAGE WHICH COYOTES DO TO FARMING AND RANCHING ACTIVITIES IS OFFSET BY THE VALUABLE SERVICE THEY PERFORM IN KEEPING RABBIT AND RODENT POPULATIONS IN CHECK. IN DEALING WITH THE COYOTE, MAN'S POLICY SHOULD NOT BE "EXTERMINATION" BUT "CONTROL"

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