

Walten Cude



PHOTOGENIC TEXAS This fine buck deer photographed against a backdrop of West Texas colorful mountain country is typical of Texas' fascinating and varied outdoor life. Other photos are featured this month in a special section beginning on page 7.



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August, 1956

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Industry Lends A Hand.....Inside Back Cover





The Cover

Think of a horned lizard, and thoughts automatically swing to Texas—so closely is this fascinating resident linked with the Lone Star state. The Texas horned lizard, one of a number of species in the family, ranges over almost all of Texas and is featured in the cover painting by Walton Cude. See the article on page 5 for more information.

Letters to . . .

Catfish Bait

(In answer to numerous readers who asked for catfish bait recipes, we selected the following from earlier issues of TEXAS GAME AND FISH. All were sent in by readers in answer to previous requests.—Ed.)

Editor:

I am enclosing directions for making blood bait. This is pretty much the way most fishermen here at Possum Kingdom Lake make it. I know it will work. We catch 'em.

This method of preparation will make the blood stay on the hook, yet it will dissolve slowly to attract the fish.

Pour a pint of warm blood (chicken blood is best) into a jar and stir in two tablespoons of casein glue. As soon as the glue dissolves, pour the mixture into shallow pans to set. Then cut it into strips to be put on the hooks.

> W. F. Hooker 911 Vanderbilt Stephenville, Texas

Editor:

We run a retail grocery, and during the trotline season we sell quite a bit of blood bait. Here is how we make it.

I get beef blood from a local packing plant. It comes in one-gallon paraffincovered paper buckets. Some people use poultry blood, but beef is the best.

I sprinkle the blood liberally with

Are You Changing Your Address?

Then please fill out the following form and send to TEXAS GAME AND FISH, Walton Bldg., Austin, Texas, so that you will continue to receive your copies of the magazine. The magazine is sent second-class mail and cannot be forwarded by the post office nor remailed from this office. Allow six weeks for processing.

Name..... Old Address..... City...., State.... Please look on the mailing label of your magazine, find the number which appears on the right hand side, and copy it here:.... New Address.... City...., State..... table salt, which causes the "serum" to rise to the surface, where it is drained off as it accumulates. The blood then becomes as firm as liver. It should never be frozen but kept at about 40 degrees.

After the blood has congealed, it is sliced and cut into strips about the size of a large earthworm.

One night I caught 138 channel catfish on a 150-hook trotline with bait prepared this way.

Some lakes, however, prohibit the use of blood bait, especially if the lake is used for public drinking water.

Arley W. Cummings 1102 West 14th Texarkana, Texas

(The fact that the above two readers disagree on the basic ingredients for blood bait proves only one thing—that both are typical fishermen! More baits below.—Ed.)

Editor:

I note that you're interested in publishing favorite catfish bait recipes, so I'll pass mine along with the statement that they have been proven only on bullheads, although I feel certain that they will work effectively on other varieties.

Beef-heart vut into V-strips is very effective, as is also chicken-hearts used whole. This was my favorite "secret" bait until recently, on impulse, I tried calf sweet-breads. The result was amazing ly good, and I caught twice as many bullheads with calf sweet-breads as with any other bait.

E. P. Aldredge 2800 North Henderson Dallas 6, Texas

Editor:

I've heard about a new bait for catfish. Maybe some of your readers already know the recipe, but here 'tis: Place entrails of a chicken in one-gallon bucket. Cover with garlic juice and let soak for one hour, or until completely used up. It works wonders on a trotline!

A. B. Elliott

3204 South Jennings Fort Worth 10, Texas

Helps Youngsters

Editor:

TEXAS GAME AND FISH has been especially interesting to my young son. Accordingly, I am enclosing a \$6 check for subscriptions for three other youngsters who are interested in outdoor life in Texas.

Stanley C. Morian 718 North Drennan Houston 3, Texas

(Letters pointing up the value of the magazine in teaching youngsters appreciation of wildlife are always gratifying.—Ed.)



... the Editor

Happy and Proud!

Editor:

Here is a picture of the results of my first wild turkey hunt. I shot them with my 410 ga. at about 6:00, Sat. Nov. 26, 1955, at my uncle's ranch, the Flying W, just outside Uvalde. Texas.

The first turkey (left) weighed 18 lb. The second (right) weighed 151 lb.

> Buddy Gulley 316 Hackberry

Kenedy, Texas

(Anyone ever see a finer looking youngster—or a happier one?)

Quail Dies

(In the past, the magazine published two "letters from a bobwhite quail." The "writer" was Chickie, a Decatur pet and counterpart of Pete, the Paris quail whose death was announced in the last issue. Recently, the following was received.)

Editor:

This is July 19, and Chickie would have been seven years cld today. I am sure she would want me to let you know that she is gone; she cied July 14 while taking her afternoon nap at the foot of the bed.

Mrs. Joe B. Reeves Route 1 Decatur, Texas

(Pete died at the age of five years. Both were long-lived compared to quail in the wild, where a two-year-old quail is a real old-timer.)

SCOT Board Hears Committee Reports



Sportsmen's Club of Texas moved a step closer to active participation in state wildlife matters at a board of directors meeting in

Austin July 12. A plan for a financial drive was outlined, a tentative budget adopted, and the choice of a full-time paid executive secretary was narrowed to three candidates.

Six of the seven officers and nine of sixteen directors were present for the meeting of SCOT, recently-created federation of local Texas outdoor clubs. Treasurer Charles Tabor, Hillsboro, announced that paid membership had increased to fiftyfive.

The board acted on two important steps which must be taken before SCOT can swing into full activity—the collection of operating capital and the employment of a full-time executive secretary.

The employment committee, headed by Charles Haas, Corpus Christi, presented the board with three names which had been screened from a list of persons proposed for the executive secretary position. After accepting the nominations, the board called a special meeting at Corpus Christi August 4 to interview the three in person and to attempt to make a final choice. Those proposed for the position are Bud Jackson, Springfield, Missouri, field director for the National Wildlife Federation; Cecil Reid, Rockport, director of the Coastal Division of the Texas Game and Fish Commission; and O. Earle Frye, Tallahassee, Florida, assistant director of the Florida Game and Fresh Water Fish Commission. All are recognized as outstanding professionals in the field.

The board of directors adopted an operating budget for SCOT of \$125,000 for the next two and onehalf years as recommended by the finance committee, headed by Ed Harper, San Antonio. According to a plan outlined by the committee, pledges on a three-year-pay basis will be requested from businesses and individuals who wish to contribute. Directors in each of SCOT's ten regions will be responsible for organizing financial drives in their own regions.

The finance committee assigned quotas by regions as follows: one, \$7,500; two, \$5,000; three, \$25,000; four, \$10,000; five, \$20,000; six, \$6,-000; seven, \$25,000; eight, \$6,000; nine, \$15,000; ten, \$25,000.

The financial drive, already delayed several months pending final legal clearance, is expected to get underway as soon as the legal aspects can be ironed out.

In other action, the board heard reports from J. C. Gordon and Bob Richards of the public relations and publicity committees and various directors concerning work done on behalf of SCOT throughout the state. It also formally adopted a work program which was revised by a committee headed by Val Lehmann, Kingsville, from an earlier tentative program.

President Harry Jersig, San Antonio, announced that SCOT was now officially affiliated with the National Wildlife Federation, made up of similar organizations from 46 other states.

The board moved to consider as charter members all clubs or individuals who join within the first year, voted to establish SCOT's fiscal year as April 1 to March 31 with officers elected in January to take office April 1 each year, and accepted the resignation of two directors, William C. Cook, Fort Worth, and Grady Hill, San Angelo.

Three new committees were appointed. A by-laws committee, consisting of Wilson Southwell and Frank Baker, San Antonio, was named to draft a set of by-laws for the government of SCOT and to submit it to the next regular board meeting. A standing committee for the improvement of the constitution and by-laws also was named with Southwell as chairman and Herbert Cole, Beaumont, and Baker as members. Val Lehmann was appointed chairman of a technical committee. Members named to this committee were E. A. Corbett, Fort Worth; George Strake, Houston; Dolph Briscoe, Uvalde, and Dr. Clarence Cottam, director of the Welder Wildlife Refuge, Sinton.

Serving on the employment committee which presented its report at the July 12 meeting were, in addition to Chairman Haas, H. L. (Jack) Biggerstaff, Jr., Abilene; Ken Foree, Dallas; Tabor and Jersig. With Chairman Harper on the finance committee were Dan Auld, Kerrville, and T. S. (Ted) Scibienski, Corpus Christi.

The next regular meeting of the board of directors is tentatively scheduled for Austin October 18.

Clubs or individuals interested in information about SCOT may write P. O. Box 2060, San Antonio 6, Texas.-T.M.

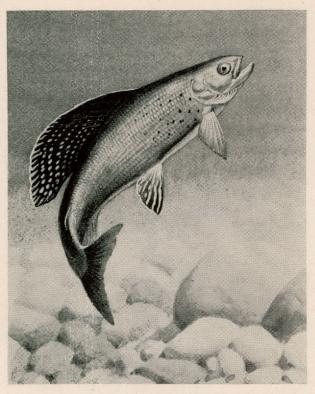
Wild Turkey Beats Rattler in Scrap

A query about wildlife conflict prompted W. S. Jennings, assistant director of wildlife restoration for the Game and Fish Commission, to describe a fight he once saw between a wild turkey hen and a rattlesnake. The fowl won.

Jennings, who formerly majored in white wing dove research in the Rio Grande Valley, said four years ago in April he was patrolling a country road southwest of Falfurrias in Brooks County when his attention was attracted to the edge of a dry lagoon.

At a distance of about sixty yards Jennings noticed a hen turkey striking the ground rapidly with her left wing and dancing cautiously around at the same time. Then, he observed that the hen was fighting a three foot rattler.

"The snake was not dead," said Jennings, "However, it was completely cowed and showed no tendency to fight when I walked up close. There is no doubt in my mind but that the hen would have killed the rattlesnake within a few minutes, by pecking at its head."



National Wildlife Federation Photo

The Grayling

By PERRY H. NELSON

When Lewis and Clark journeyed through Montana they made reference to the abundance of a particular fish in the Missouri River drainage. From a description by Captain Lewis, this was later recognized as the Montana grayling.

Since then the distinctive characteristics of this fish have become known to many. The adult averages from 12 to 14 inches, with the most outstanding feature being a large sail-like dorsal fin which has alternate black and orange-colored horizontal lines with green and orange spots. The body has large scales and is brilliant purplish-gray with bronze reflections and a

Sixth of a Series About Our Endangered Wildlife Species

concentration of black spots near the head.

Originally, the grayling was abundant in Montana and Michigan, the only states where this species was native in the United States. It has become extinct in Michigan and declined in numbers in Montana until it now occurs over only a small fraction of the original range, which was all of the Missouri River drainage above Great Falls, Montana.

The grayling begin to decline with introduction of exotic fish and the advent of siltation and pollution. Originally, it occurred in the company of whitefish and cutthroat trout in the upper Missouri drainage. These three game fishes are still compatible where they occur together. But where other species have been introduced, both the grayling and cutthroat trout have suffered. Present successful grayling waters include those which are free or nearly free of introduced trout such as the eastern brook, rainbow and brown trout, and undesirable fish such as carp and Utah chub. Since grayling require cold, clear water and are less tolerant of pollution and siltation than trout, the coming of civilization with its human sewage, industrial wastes and poor land-use practices, has also contributed measurably to their decline.

Today grayling are rarely taken within their original range except in a few lakes and in two places where small remnants of the once large population remain in the upper tributaries of the Beaverhead and Big Hole Rivers of Montana. In the latter area they have been maintained largely through artificial propagation. The upper Beaverhead River drainage in the Red Rock Lakes area still remains in as much like its original condition as when Lewis and Clark found it, and grayling, while reduced in numbers, are still maintaining themselves naturally. This area was selected by the Montana Fish and Game Department as a grayling sanctuary where management studies might be carried out. A large portion of this lies within the Red Rock Lakes National Waterfowl Refuge which is famous as a last stronghold of the once-nearly-extinct trumpeter swan. The objective of the study was to develop a plan to preserve grayling in at least this one portion of its original range in Montana, and to determine practices which could be applied in restoring this fish in the remainder of the state.

As a result of these studies, a number of management and protective measures have been taken. Further introduction and propagation of exotic species have been curtailed. In some instances beaver and beaver dams have been removed from tributaries to lakes containing grayling so they could have ready access to suitable spawning grounds in the streams. To date a number of ponds supporting undesirable fish have been artificially poisoned so that graylings could be re-

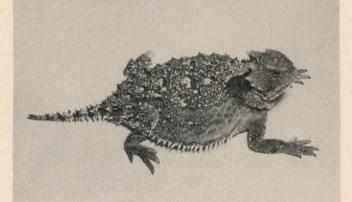
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As Fisheries Biologist with the Montana Fish and Game Department, Perry H. Nelson has gained first-hand knowledge of the problems that are faced in the restoration of the grayling in those waters where it now may be making its last stand.

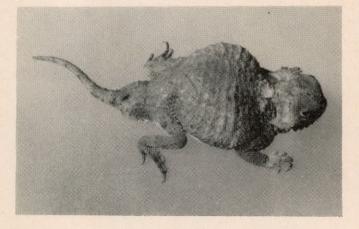
The horned toad or more correctly horned lizard is a well known citizen of Texas.



Texas Horned Toad (Phrynosoma cornutum)



Mountain Short-horned Toad (Phrynosoma douglassi hernandesi), above, and the Bleached Horned Toad (Phrynosoma modestum), below.



A Real Texas Gentleman

By AL FLURY Aquatic Biologist

Now here is a real, honest Texas Gentleman—and you can't hardly find 'em like that any more! In many ways he is the most, the biggest, widest, highest, farthest and the best. The true facts about the horned toad are so amazing and strange that even a Yankee won't believe them, so good Texans have had to make up a few exaggerations (lies) about him.

In the first place, in a land of frauds, the horned toad is one of the biggest—he isn't even a toad. He is a reptile, a lizard of the Iguanid family. Toads are amphibians and about as closely related to lizards as duck are to deer. The horned toad has been called by that name for so long by so many people that the use of any other term such as "horned lizard" is not facing reality and ignores the idea of "common" names.

Our famous little friend goes under the Latin or scientific name of Phrynosoma cornutum. He has a head, four short legs and a short tail arranged around a broadly flattened body. The most prominent feature besides the body shape is the pair of horns borne on the back of the head. Smaller horns (hardened, pointed scales) help form a crown of thorns on the head and others are found just above the eyes and at the back of the lower jaw. The lateral edges of the body are armored with a double row of pointed scales and many scales on the back are enlarged and pointed. On either side of the light vertebral stripe are two rows of three or four enlarged scales accentuated by dark spots outlined posteriorly by light half circles. Two other dark blotches with light borders are found on the shoulders. The usual general color is grey with smaller black spots scattered over the body and legs, but depending on the local soil color, the beasts may be tan or even reddish. The color of the underside is white or cream with small scattered black spots.

Thirteen species of horned toads are known in Mexico and the western United States. Seven species occur in the U. S. and three range into Texas. One form in northern Mexico is a real odd oddity—a horned toad without horns. Some lizards with more typical body form belonging to the same family are the large iguanas and chuckwalla, the crested, zebra-tailed and collared lizards of Mexico and the Southwest. The

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Industrial Pollution Affects Fishing



By DR. R. W. ESCHMEYER, Sport Fishing Institute

How industrial wastes can affect the populations of our streams.

DOMESTIC sewage has ruined many a fishing stream. But, industrial pollution has done even more damage. In the last fifty years there has been a seven-fold increase in industrial production. This big increase has added tremendous volumes of industrial wastes to our streams.

In the United States, more than 10,000 separate plants are discharging these wastes—food processing, meat packing, textile manufacturing, pulp and paper mills, synthetic fibers, rubber manufacturing, steel, oil and petroleum products, metal finishing, coal washing, and many others.

About 6,000 of these plants discharge wastes which decompose in the same way that city sewage does. And, as with city sewage, the decay removes oxygen from the water, making it unsuitable for fish and fish food. The discharge from these 6,000 plants is equal to the pollution effect from the sewage of about 110,000,000 people. In other words, these 6,000 plants do nearly twice as much harm, pollution-wise, as is done by the 8,000 communities, with a population of 60 million, which discharge raw or inadequately treated sewage into our waters.

In addition to those mentioned above, about 5,000 plants discharge additional inorganic or undetermined types of wastes. Too, about 10,000 tons of acid are draining into the waters each day from mines.

The acids and chemical wastes are responsible for

many of the big fish kills which we read about. They are toxic to fish and to the organisms on which the fish feed.

Certain insecticides used on cotton and other plants wash into streams and kill fish and fish foods.

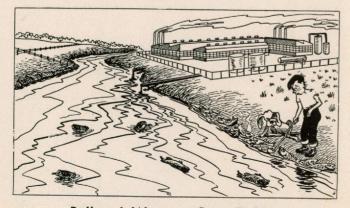
Many polluting industries are spending considerable sums of money to find out how they can prevent polluting the waters. On the other hand, some polluters don't seem to care what happens to the wastes discharged by their plants. Because of the latter, we need strong pollution laws, rigidly enforced.

Industrial organic waste can be treated in much the same way that sewage is given primary and secondary treatment by cities with modern sewage treatment plants.

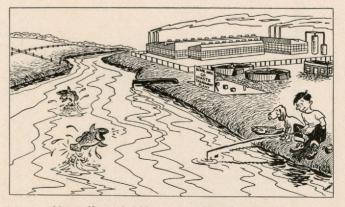
Many industries are learning, too, that much of the material which they have discharged into streams can be converted into valuable by-products. For example, distillery wastes are now used as cattle feeds, and some paper mill wastes are used as road binder. Some of the industries which discharge acids or other toxic wastes can treat them to make them less harmful, or can keep the wastes from discharging into the streams. Some can find valuable uses for these toxic materials.

We must have industrial production, and must maintain and expand it if we are to keep our position of leadership in the modern world and maintain our

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Polluted Water - Poor Fishing



Unpolluted Water — Good Fishing



A special section of photographs, reflecting the wide variety in the outdoor life of Texans, both human and animal.



HIDEAWAYS. Both these animals, the ring-tailed cat, left, and the beaver, right, range over most of Texas, yet many persons are unaware of their presence. The ringtail is a shy night prowler which,



surprisingly, yields Texas' greatest number of fur pelts. Beavers have been able to hold their own over much of the state despite human opposition to their tree-felling operations.



PORCUPINES, usually associated with the Rockies and the far west, are native Texans, too. Their range is spotty but extends over most of the western half of the state.



DESERT SHRIMP don't worry about drouth. Their eggs may lie dormant in a dry pond bed for 25 to 50 years waiting to hatch. Romance plays no part in the life of this citizen of West Texas, for there are no male desert shrimp—the female fertilizes her own eggs. The girls must like it this way, because desert shrimp haven't changed in form since the Triassic period, some 175,000,000 years ago.

Texas 'Homefolk'

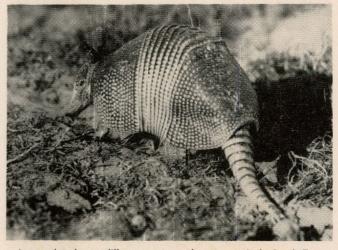
Certain species of wildlife are so closely connected with the Lone Star State that they are almost symbolic of Texas.



Non-Texans are always fascinated by horned lizards, usually find it difficult to believe the ferocicus-appearing creatures are harmless.



Roadrunners, with their snake-killing ability and intriguing antics, are as much a part of the Texas scene as its cattle and oil derricks.



Armor-plated armadillos once were almost excusively South Texans. Within the past quarter century they have spread throughout the state and across its borders.



The "personality" of the coyote has given him a place in literature. His fascinating traits invite colorful writing, so much so that his characteristics and habits often have been exaggerated.



Texas white bass, left, originated in Caddo _ake. Transplanting has been so successful they now are one of the state's leading freshwater game fish. Texas shares with Florida top honors as home of the savagely-fighting tarpon, right.

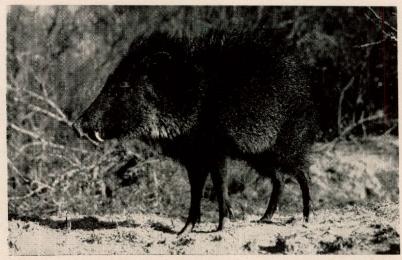


Texas has more wild turkeys than any other state, despite oppulation declines in recent years due to the prolonged drouth and extensive grazing. In many states the "King of American Game Birds" has became extinct or nearly-so, but wise management and landowner cooperation enables Texas hunters to lead all other states each year in total kills.

Texas Tops in Nation For Hunting These Popular Game Species



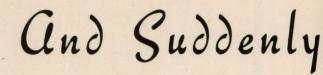
The largest winter concertration of whitefronted geese (speckle-bellies) found in No-th America is located in and near Colorado County. At times in early morning the noise of tens of thousands of moving geese makes normal conversation impossible. Whitefronts are rated as superior game to Canada geese by many veteran hunters and are almost as large. The Texas coast, from Orange to Brownsville, also is rated as one of the nation's most productive over-all waterfowl hun-ing areas.



A major portion of the nation's total javelina population inhabits Texas. In contrast to tight restrictions in other javelina states where the animals are far less plentiful, Texas has a liberal season, open year-round in many counties. The javelina is valued highly as a trophy, particularly by hunters from areas not fortunate enough to host this fine game animal.



White-winged dove shooting in Texas, with hunters lined up elmost shoulder to shoulder, is a spectacle unmatched anywhere. Depletion of nesting sites reduced the Rio Grande Valley hun-ing-season population from nearly a million in 1950 to only about ten thousand last fail, leading to a closed season the past two years. However, there are good prospects for a re-opening in the near future.



The amazing growt

dove is Nature's way o

Beginning about the middle of April, the whitewing doves start housekeeping in their nesting areas along the Rio Grande. The nesting period lasts all summer, the peak occurring about the first week in July, and eggs are hatched as late as mid-August. The young birds grow very rapidly, and even birds which are hatched late are classed as adult doves by the first of October.

A brush clearing program in the lower Rio Grande Valley destroyed much of the natural whitewing nesting region. After the doves adapted themselves to nesting in the citrus

trees, a few years ago a killing freeze wiped out almost all of the groves, thereby eliminating many of the new nesting areas. Replantings of citrus trees and regrowth of others has helped to restore much of this area, resulting in a promising increase in the whitewing population.

Recently the Commission moved to purchase a 200-acre tract of native brush land as a whitewing nesting area in the Valley.

The accompanying photos show the rapid growth of these largest of Texas' doves.

Left, whitewing dove nest and eggs in a grapefruit tree. Two eggs are normally laid a day apart and incubation time is 15 days. One egg always hatches about 24 hours before the other. Bottom left, one and two day old birds take no notice of their surroundings and live only to be fed. Growth of the young birds is very rapid and by the time they are five and six days old, bottom right, the pinfeathers are prominent. At this stage they are receiving considerable solid food.







They're Grown!

rate of the whitewing

protecting the species

Photos by WILLIAM S. JENNINGS Assistant Director, Wildlife Restoration

About the seventh day, bottom left, the webs of the feathers on the wings and tail begin to appear, and by the eighth day the characteristic white on the wings is noticeable. At this age the young are very alert to danger and will "freeze" when the nest is approached. At ten days of age the body is fairly well covered with small contour feathers, but the head is still covered with pinfeathers which pop and begin developing by the twelfth day, bottom right.

When the birds are thirteen and fourteen days old they are able to make short flights, however they seldom leave the nest unless they are frightened from it. The young birds leave the nest when they are fifteen and sixteen days old, right above. They will remain in the vicinity of the nesting area for two or three weeks, as is this young adult whitewing, top right.

Thus in the space of only one month from the time the eggs are laid two more whitewing doves have taken to the air.











PHEASANTS IN TEXAS. The last Legislature legalized the "Shooting Resort" in Texas. Released birds, including pheasant, chukar, and quail, may be hunted over prolonged seasons—November I to February 10 for quail and October I to April I for pheasant and chukar. Skyrocleting preasants, above, quickly gainec acceptance by Texas hunters, and shooting resorts promise to play an increasingly important role in the state's hunting picture. (San Antonio News photo by Hal Swiggett)



DEER. KILLED ILLEGALLY continue to rob hunters of game and to pose a major problem to wardens. Loads like this of deer confiscated from arrested violators are sent to charitable institutions such as orphanages and state nospitals.





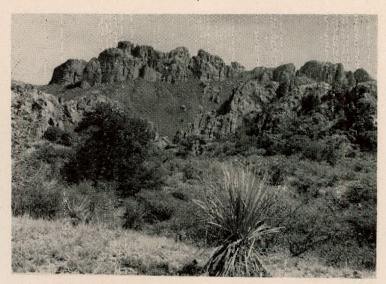
QUAIL WINGS are used in the fall to differentiate between first-year birds hatched that spring and birds a year or more old. Covert featners of the young, accve, have light tips or splotches as contrasted to the solid derk color of old birds. Wirgs sent to the Commission by hunters each year reveal that during hunting season less than 30 per cent of the birds are over nine months old. Quail are notably short-lived.



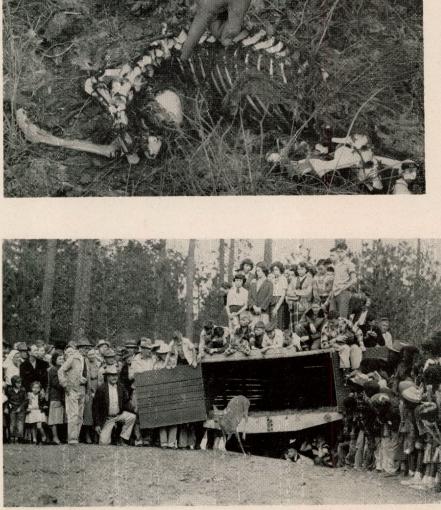
WHOOPING CRANES have kept the spotlight on Texas in recent years as conservationists everywhere fight to save the last remaining handful of this nearly-extinct species.



THE CHACHALACA is one of the state's finest game birds —and also one of the least numerous. Its range is restricted to remaining tracts of thick brush in South Texas. This crowsized, tasty bird gets its name from its coarse "cha-cha-la" call. The chachalaca, dark buff colored with orangeish cheek patches, is plentiful across the border in Mexico and often is called the Mexican pheasant.



MORE THAN A PRETTY SCENE, the 36,000-acre Black Gap Area near Big Bend National Park is one of five large Wildlife Management Areas owned by the Game and Fish Commission. Thirteen more are operated under lease. On all, wildlife technicians constantly are striving to find new ways to increase game and fish populations for better hunting and fishing. Emphasis is on production of game in conjunction with normal farming and ranching operations. (Photo by Hunter's of Alpine)



DEER RELEASE. About five years ago almost five hundred landowners rear Crockett combined nearly 100,000 acres and contracted with the Game and Fish Commission in the largest cooperative Wildlife Restoration project in Texas. No hunting was to be permitted

WASTED. The skull of an unborn fawn is shown centered in the skeleton of a dce which died of malnutrition in Texas' Hill Country deer center. Summer dieoffs were reported in late July in overpopulated areas, pointing to the possibility of more severe losses next winter unless hunter kills this fall eliminate the surplus. Legalized antlerless deer nunting has removed many excess does in recert years.



for five years. When the first trapped deer were released by the Commission, interested spectators jammed the one-way road to the release site, a fire-tower clearing in the pines. Late comers had a long walk. Hunting will be reopened in 957.



GULLS are one of the most familiar sights along the coast. At least four different species are common to Texas, possibly the most familiar being the laughing gull pictured above.



VISITORS to the Game and Fish Commission's Marine Laboratory at Rockport find marine life close at hand in the obby aquariums. This building serves as headquarters for the marine biologists who work the entire Texas coastal area. The Commission's big fleet of research vessels is cocked in the bay ad acent to the Laboratory building.



National Audubon Society MALLARDS such as -hese in the Texas coesta marshes offer hunters some of the nation's finest waterfowl shooting.



TREMENDOUS SCHOOLS of menhaden, tiny oil-producing offshore fish, provide more commercial tonnage -han any other in Tezas.

THE TEXAS COAST PROVIDES A VARIETY OF SCENES • • •



No scene around a dock or pier would be complete without brown pelicars. This pair seems to appreciate a free meal.



FREE FISHING PIERS are becoming increasingly popular with coastal fishermen and may yield such vaurted scrappers as the tarpon.



TEXAS BEACHES provide the ready-made landing strips for fishermen seeking out-of-the-way spots.

AND FISHING, TOO!

OFFSHORE trolling lures Port Aransas' sport fishing fleet out through the jetties for a day of fishing.

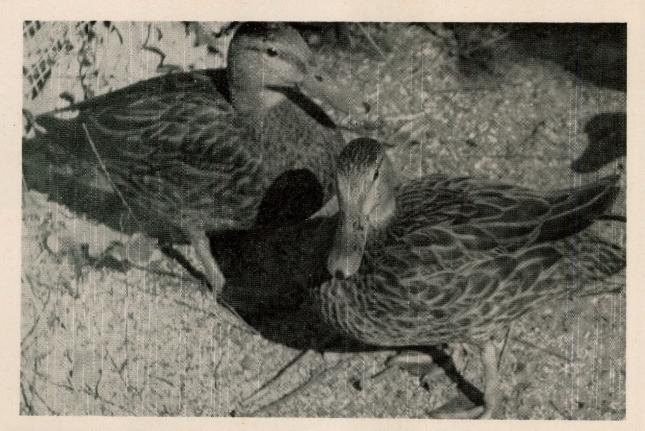


SURF CASTING, one of the many favored fishing methods on the coast, is an art in itself, and may produce such popular surf fish as the redfish, left, and speckled trout right.



FISHERMAN'S CHOICE. Whether you fish for the little perch, left, or the big sailfish and king mackerel, center, coastal fishing has

something for everyone. And catches like these whopper trout and redfish, right, keep fishermen returning to the Texas coast.





The pair of mottled ducks, above, are typical of Texas' native duck. The distinguishing feature between the male and female duck is the bill of the male which is marked with irregular dark spots.

The nest at left is typical of those found in the coastal regions of Texas and up to 100 miles inland.

> Right, two young mottled ducks learn early to swim and avoid their numerous predators.



Bred and Raised in Texas

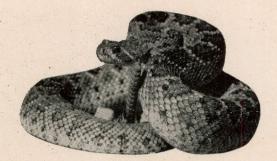
The mottled duck occurs along the entire coastal area of Texas, with heaviest concentrations in upper coastal regions. Sometimes known as the mottled mallard, it is a large duck, approximately the size of the mallard, and is an excellent game bird.

Mottled ducks are of particular interest to Texans since evidence indicates that they nest in Texas and do not migrate. Banding programs carried out by the Game Commission biologists have shown that most of the banded ducks which have been killed have been reported only a few miles from or in the same general vicinity of the place where they were banded. Their travels are generally limited to an area of only a few miles radius from their nesting grounds.

The mottled duck is a determined nester, continuing to build nests and lay eggs until they have succeeded in raising at least one family a year. Sometimes it is necessary for the hen to lay up to 36 eggs in order to raise nine ducklings.

The coloration of mottled ducks lends itself to camouflage and young ducks learn early to take advantage of this protection. A mother duck and all of her babies are seldom seen together. By the time they can be observed, they usually have had enough warning that at least some of the ducklings have successfully hidden themselves.

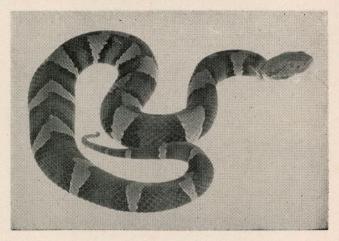
THE EVIL ONES

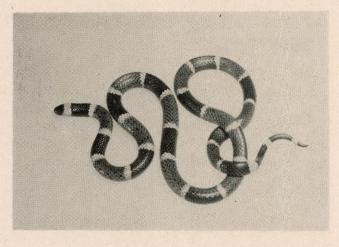


More people die of snake bite in Texas than in any other state, according to authorities. Perhaps this is because all four of the North American poisonous snakes are found in Texas. These are the well-known rattlesnake, copperhead, coral snake and "cottonmouth" water moccasin.

Below right, the colorful coral snake is quickly recognized by broad red and black rings separated by narrower bands of yellow. It is often found under trash and decaying matter.

Copperheads, lower left, distinguished by broad reddish-brown bands alternating with lighter ground color, live in rocky areas. Their coloration makes them difficult to see.





The water moccasin, lower left, with its heavy body and brown coloration, is one of our largest snakes. As its name implies, it is found along streams, ponds and lakes. Rattlesnakes, lower right, found all over Texas, are the most dangerous of the poisonous snakes possibly because of their great size, wide distribution and varied habitat, and aggressive dispositions.







Ungainly snowy egret bebies give no indication of the beautiful birds they will become.



White-tailed fawns watch with curiosity as a 'coon wanders by.



A mother javelina and her babies in arid South Texas brush country.

Texas has a wide variety of wildlife

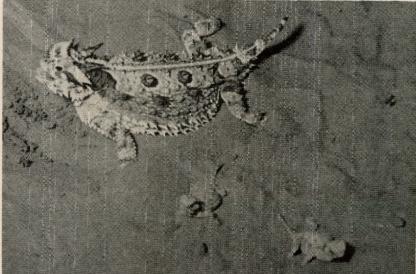
And . . .

Some Are Very

Young mottled ducks voice displeasure, lower left.

Eaby horned lizards, below, s-arting out into the world.





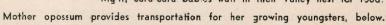
TEXAS GAME AND FISH



Canada geese, above, rest in Canada out are well known along the Texas coast. Below, two young pronghorn antelope have trouble managing their long legs.



Right, cara-cara babies wait in their Valley nest for food.







A young coon, surprised on his nightly hunt.

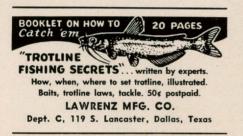


Young

Commission Plans Hunts on Management Areas

Wildlife technicians will not determine for a few more weeks details of the special deer hunts on the Game and Fish Commission's experimental-demonstration areas. The shoots have been authorized by the Commission as a means of reducing surplus deer and will be the second such seasons in these areas created to a d v a n c e game management studies. The shoots will be in connection with the main deer season beginning November 16.

When the field force determines how many head of deer should be harvested, a public drawing will be conducted to name the persons to participate in the conducted seasons. No charge is made other than



the regular \$2.15 hunting license.

At the first of the area hunts last fall only a fraction of the quotas earmarked for harvest was taken. Biologists in charge attributed the poor harvest to failure of some hunters to show up and poor marksmanship.

Details of the antelope hunts in both the Panhandle and West of the Pecos will not be available for several weeks. Public drawings will be

Texas Dove Season Dates Announced

Texas will have 95 half days of mourning dove hunting this fall, divided between north and south zones, the United States Fish and Wildlife Service has advised the Game and Fish Commission.

The north zone season will run from September 1 through October 17, and the south zone will open October 12 and continue through November 28. This is an increase of five half days over the 1955 season.

The Washington agency sets the

held to select participants in both pronghorn seasons which will be designed to harvest a total of about 1100 head, mostly bucks.

Commission technicians also are shaping the special antlerless deer shoot in key Hill Country counties where such shoots were originated three years ago as a means of reducing deer overpopulation, a condition which has since been made more acute by the extended drouth.

seasons since mourning doves are migratory game. It generally follows the recommendations of the states.

Shooting periods will be from twelve o'clock noon to sunset. Limits will be ten per day and ten in possession. Kaufman County in northeast Texas has a special regulation by state law, closing the dove season in the Combine community.

Field reports this year indicate that Texas has an amazing mourning dove population despite the merciless drouth. Native birds comprise the bulk of the bags in the early season while migrating birds from the north bulwark the local numbers later in the fall.

Now Is Best Time To Rid Farm Ponds Of Unwanted Fish

Ponds and tanks at low water level because of the drouth may now be conveniently cleared of rough fish, suggests Marion Toole, chief aquatic biologist for the Game and Fish Commission.

He urged persons with tanks or ponds on their places to contact their local game warden for supervisory aid in seining the areas. He pointed out that such work can be done only with formal Commission permission because of legal restrictions on seining.

Toole observed that the usual hot weather reports on fish dying in low streams and tanks are current. He said this generally is from lack of oxygen in the water.

SPORTSMEN! POPULATE YOUR RANCHES

Name Hens Street Gobblers City \$ enclosed

TEXAS GAME AND FISH

Antelope Hunt Application Deadline Set for August 31

Formal applications for the fall antelope hunts are ready, Vernon Skaggs, chief clerk of the Game and Fish Commission, has announced.

Persons interested in the hunts should write him at the Commission headquarters in Austin. Blanks and instructions for formally applying will be forwarded promptly. Deadline for mailing requests for the applications is midnight August 31, which means they must be postmarked before midnight of that date.

E. A. Walker, director of Wildlife Restoration, estimated upwards of one thousand head of pronghorned antelope will be earmarked for harvest. Approximately seven hundred head will be available West of the Pecos, where both bucks and antlerless antelope will be taken. The remainder will be in the Panhandle.

Should more persons apply for the special permits than there are ante-

Time To Renew Annual License

The new hunting and fishing licenses for the state's fiscal year beginning September 1 will be mailed from Austin, August 21. Approximately 350,000 fishing and 350,000 hunting licenses in all will be shipped to the state's 2500 licensed agents in 254 counties.

Old licenses will be void after midnight August 31.

Resident hunting licenses cost \$2.15 and include two tags for deer hunting. Resident fishing licenses cost \$1.65.

The consignments will include the special non-resident license for migratory bird hunting, such as ducks, geese and doves. These cost \$5. The regular non-resident hunting license is \$25. A special five day non-resident fishing license costs \$1.65. lope available, the customary public drawing will be held in the Commission's Austin headquarters.

The hunt West of the Pecos will be in two sections. The first will be October 1 through October 3, and the second October 5 through October 7. The Panhandle shoot will be in three periods: October 11-13; October 14-16; and October 17-19.

The Chief Clerk admonished persons writing in for application forms to indicate whether they prefer to hunt West of the Pecos or in the Panhandle. He said groups will be permitted to apply so that they may be permitted to hunt in the same party.





INSTRUCTIONS TO STITH ... FOR 24-HOUR SERVICE 2767 E. COMMERCE, SAN ANTONIO, TEXAS Specify Over-All

		Instal	ea	Length
Deluxe Poly-Choke	Ventilated	🗋 \$2	4.75	inches
	Standard	[] \$2	1.75	inches
Super Poly-Choke	Ventilated	[] \$2	2.50	inches
	Standard	[] \$1	9.50	inches
Cutts with Adjustable Tube		52	7.75	inches
Cutts with Single Tube		\$2	1.25	inches
Additional Tubes, ea		\$	3.25	
Weaver with 2 Tubes		[] \$1	5.25	inches
Additional Tubes, ea		\$	1.75	
Need a Recoil Pad to Ease That	Kick?	\$	7.00	inches
Gun Reblueing — Hand Guns, F	Rifles, Pumps, Auto	\$1	0.00 to	>
		\$1	2.00	(3 to 5 days)
NAME		MAKE & MOD	EL GUR	۰
STREET				
CITY		SERIAL NO		

Fish Reports Field Data

Texas Tracks

By JAY VESSELS

TIPSTER AHOY!

The New York Herald Tribune published an item from Trenton (not Texas) N. J., stating that land police had been empowered to arrest drunken power boat operators with or without warrants. An attorney general's ruling was requested to clarify a state navigation law which had confused law enforcement officers. The ruling held that the operation of a power vessel in a manner that constitutes a breach of the peace justifies police action.

PREPAREDNESS NOTE

Paul Timmons, who does the outdoor experting for the Amarillo News-Globe, is a farsighted person when it comes to big game hunting. With the temperature stuck at 100 plus, Timmons looked ahead to times when readings will be cool enough to chill out fresh meat. He wrote: "If I were figuring on a new hunting scope for next fall, I would buy it now and be getting accustomed to it. That would be particularly true if it was to be my first scope. Get the scope sighted in and you can have a lot of fun at target shooting, or just pick the rifle up and sight it on various targets-dry firing-and you will gradually become accustomed to it so it will feel right when you start hunting."

YEAR AROUND ASSET

Gus T. McMammal, the nosy layman wildlife observer, always contended that what the country needs is a means of utilizing the millions of duck blinds standing idle between seasons. A possible hint came the other day, according to AP, when a four-year-old Houston, Texas, child was found asleep in a duck blind after having been lost over night in the Kankakee River bottoms near Joliet, Ill.

DUCK RADAR

Game Warden Tom Waddell of Eagle Lake, says wild ducks have their own GCA (ground control approach). The Colorado county veteran was responsible during last fall's drouth for protecting a concentration of 100,000 pintails packed around a small tank. Fogs are common in the area; fogs thick enough to ban practically all human movement. But the ducks flew twelve to fifteen miles to their feeding grounds at night and uncannily returned to their precious watering rendezvous about daybreak, zero-zero weather or not. Tom said calling didn't seem to be a factor in pinpointing the tiny target. Gus T. McMammal, while skittish about matching his layman slant with such an authority, suggested the ducks capitalized on the same vectoring techniques used in migrating between nesting and wintering areas.

HUNT CHATTER

Floyd Murray who writes the Page One column about East Texas for the Tyler Morning Telegraph, reported a cold day anecdote during a hunting trip with an older friend. "Soon after reaching the woods," he related, "we heard something and stopped. 'Was that a squirrel or was it your teeth chattering,' he asked his companion. 'My teeth may have been chattering,' he answered, 'but I doubt that you heard 'em. I left 'em at home'."

COOPERATIVE TROUT

George Nava of Rockport exploded, but gently, when he made a fine cast out into Mesquite Bay off the Gulf and noticed his bait, a piece of shrimp, fly off into space. But his gloom turned quickly to joy when a fine trout bit on the bare hook as he retrieved it.

WILDLIFE HARVEST

Almost one-half of Dimmit County's 475,000 acres were leased to hunters for last fall's hunting season, reported Game Warden Supervisor Herbert Ward of Cotulla. Figures taken from shooting preserve rec-ords for the South Texas county show that landowners took in \$32,-322 for their leases and that 572 deer and 23 wild turkey were bagged. Ward said the value of proper wildlife management was demonstrated by figures showing that more than one-third of all game harvested in the county was taken from four ranches. However, he said only a comparatively few ranches followed modern management methods in handling their wildlife resources.

PAIR OF ALBINOES

Game Warden Harold A. Bierman of Fort Worth reports the presence of two solid white quail in one covey of about fifteen bobwhites on a farm twenty miles northwest of Fort Worth. Biologists say this is an extreme rarity.

BAIT SWITCHING

Sports Editor A. C. Becker, Jr., who doubles as outdoor expert for the Galveston News, suggests that too many fishermen spend too much time switching baits, or just plain imitating the fellow next door. "Beck" was reporting on a cluster of casters working a coastal bay. He deduced that the fellow using live shrimp and the one using a gold spoon got the most speckled trout. He said the imitators had a hard time with one sleight of hand operator who "kept his rod tip down in the water and worked the fish in close." "Unless you happened to be watching this one man specifically," he added, "you never would have known he was catching fish."

Press Views Game Notes

FISHING HAZARD

A Galveston boy, age twelve, got an unusual break when his foot got caught in an underwater trotline. The leader happened to be long enough to permit him to tread water and keep his head above water until somebody could free him.

ALLIGATOR HEAVEN

Aquatic Biologist Charles Gray of the Game and Fish Commission staff assigned to northeast Texas, said Caddo Lake alligators know when they have a good thing. The big amphibians have been protected in that area because market hunters threatened to exterminate them, and they have become rather tame. Gray described a boat trip into the back waters of what they call Trout Pond, a shallow area within a cypress brake off Caddo. He was moving quietly along in about four feet of clear water when his craft moved directly over a huge 'gator. Gray said the giant reptile was about a foot below the surface and was a good twenty inches across. "The old fellow seemed asleep," said the biologist. Gray wisely kept his own hide secure by keeping in motion without disturbing the specimen.

FUTURE REFERENCE

The San Antonio *Light* reported the fine deed of Sergeant Jesse A. Dean of Fort Hood. He removed a fat buck deer from a barbed wire fence snare and took it to the post veterinarian for first aid, including penicillin. Some days later he returned the mended animal to its natural habitat.

OUTDOOR NEWS

Two men named Charles (Faktor and Rowland) have started a weekly newspaper at Palacios for "complete coverage of the mid-Gulf coast recreational empire." It's called *Gulf Coast Fishing-Boating-Hunting*.

COOT CONSCIOUS

If you have any decoys resembling coots, or mudhens, better dispose of same, advises Sports Editor A. C. Becker, Jr., of the Galveston News. Becker, who also is the News' authority on wildlife, is a decoy connoisseur and attributes his success with the conterfeits to his study of ducks between shooting seasons. After one binocular binge in a coastal marsh, Becker wrote: "Ducks seem to avoid close association with coots. On the place observed, there were quite a few coot. Every time coot would move close to the ducks. the ducks would swim away."

REPORT FROM AFIELD

Haywood McDaniel sent the Game and Fish Commission a wing from a cock quail killed December 1, 1955, in Wilson county, six miles east of Floresville, with this note: "My total kill on three hunts was one cock and two hens. Birds were scarce, my aim poor, and my dogs are natural conservationists." Quail wings are studied by wildlife biologists to determine vital material for game management work.

WOLF WISDOM

Floyd Murray, who writes "East Texas Talks" for page one of the Tyler Morning Telegraph, reports another intelligence trait by wolves. He says the beasts hide out in Van Zandt county between Highway 80 and the Alba Road. They are safe there because dog owners are afraid of traffic on the roads which the pooches would have to cross in a full bloom chase. After one cattleman lost twenty calves to the raiders, a professional trapper was hired and quickly nabbed six wolves.

VITAL ROUTINE

Fred Maly, Outdoor editor for the San Antonio *Light*: "Claude Keller, the flying game warden killed in a plane crash, played a big part in the biological survey of Texas coastal fishes by State game department biologists. An authority on fish, Keller was especially helpful to the biologists he flew around to coastal spots in pursuance of research." Keller's plane crashed while he was flying at low level, working with waterborne wardens in spotting illegal netters.

THOSE REDHEADS AGAIN

Just one redhead has been the personal problem of many a man. But think of 1,200,000 redheads, particularly with a mystery angle. It happens that the multi-thousand redheads concern wild ducks by that name. And what a hassle for people like W. S. Jennings, Assistant Director of Wildlife Restoration for the Game and Fish Commission, who has to keep tab on the wildlife redheads. The 1,200,000 ducks in that category assembled in the Gulf area off the Rio Grande Valley last October. They suddenly disappeared without leaving any forwarding address, apparently because fresh water sources had been dissipated by the drouth. The spring migration northward brought no evidence of where the reds spent the winter, either. Jennings hopes that the fall migration will clear up the mystery. And so do a lot of Texas hunters who missed harvesting their share of the fleet ducks last fall.

GOODY, GOODY GUMDROP

Sports Editor Carl Guys of the Del Rio News Herald said one of the current sensations in the Mexican border country is a gumdrop bait for carp. He counseled, "Find the carp feeding in the shallows of almost any place, flip the gumdrop near the feeders and get set for a rugged battle with those rough fish."

GIRDLE MARATHON

An Austin woman got the maximum weather treatment for her new girdle because she hung it out on the clothes line just in time for a family of wrens to begin housekeeping. Thus an overnight hanging out extended into weeks as the eggs were laid and five baby wrens were developed to the flying stage.

MAKING IT GOOD

El Paso *Times* carried a Roswell, N. M., item telling how Police Judge R. L. Ballard meted out effective punishment for a 17-year-old boy who shot a city park buck deer and said he had no reason for the act. Judge Ballard fined the depredator \$150 and gave him ninety days to get a replacement for the slain buck or spend ninety days in jail.

Hunters Harvest King Ranch Game

King Ranch, whose wild game and game management programs are almost as fabulous as its cattle, played host to hunters during the past hunting season, providing a total of 1,827 day hunts. The ranch, recognizing that annual game crops must be harvested to insure continuing success in a game management program, invited many persons completely unknown to ranch personnel for day hunts in order that adequate surpluses of game could be hunted.

These hunters, predominantly Kleberg County residents, harvested the imposing bag of 7,239 game birds and animals. Guests were limited to one deer, one turkey and one javelina per person, but in the case of other species, state bag limits prevailed. These regulations divided a carefully predetermined harvestable game crop equitably among a large number of sportsmen.

Over-all count showed 209 deer killed, 106 turkeys, 638 geese, 678 ducks and 5,589 mourning doves.

The annual wildlife crop of King Ranch and on nearby properties which receive drift from King Ranch is not an accidental phenomenon.



For the last decade, King Ranch has conducted the most comprehensive privately-financed game research and management program in the nation. A study of the effect of Vitamin A on bobwhite reproduction and survival by Val Lehmann, ranch wildlife biologist, was selected as one of the five outstanding research works on terrestrial mammals by the National Wildlife Society at Montreal, Canada, in 1955. Food habits, parasite, and population studies of deer and turkey are among other research contributions of wide interest.

Management phases include extensive habitat improvement and modification at all windmills to provide drinking and bathing facilities for game birds. Approximately 65,-000 mesquite, huisache and grenjero bushes have been "half-cut" to provide better nesting and escape cover for quail. "Living fences" of cactus of special value to quail and other wild birds and animals in dry times —have been established on 75 miles of fence lines. Game is fed in extreme drouth crises.

The entire expense of the game habitat improvement is borne by King Ranch. And benefits of wildlife management on the Ranch accrue to people throughout Texas. For years King Ranch has given game to the Game and Fish Commission for restocking depleted ranges. In the winters of 1948-49 and 1949-50, for example, 1,725 deer and 1,948 turkeys were transplanted to restoration sites located from the Panhandle to the Piney Woods of



East Texas. Trapping operations to take 824 deer and turkey are presently underway.

"The most logical method of producing larger and more suitable wildlife populations to more nearly cope with the demands of a rapidly expanding human population, of course, is greater production," a spokesman for King Ranch stated. "In other words, since most game range in Texas is privately owned, private landowners must be encouraged to produce more game, if there is to be more game."

R. J. Kleberg Jr., president of King Ranch, said, "We realize our responsibilities as well as our privileges in wildlife management and we expect to continue to fulfill our responsibilities to wildlife and to the public to the best of our ability."

Hunter in Mexico Returns Dove Band

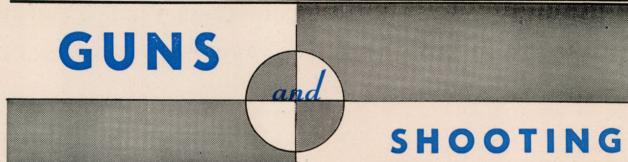
Routine that marks modern-day wildlife studies was typified by the report on a mourning dove banded in Texas six years ago and reported bagged in Mexico recently.

E. A. Walker, Director of Wildlife Restoration, said the dove was banded near Midland by Game Warden Bob Evins, now of Junction, on June 26, 1950, soon after it hatched.

The report on the band was made by Julian Fejeda of Santa Maria del Valle, Jalisco, Mexico. He forwarded the number on the band which provided the key to details of the original nest marking.

In complying with instructions on the band, Fejeda wrote: "The ring on the bird's leg had the following inscription (notify Game Comm., Austin, Texas, 20405) so I am pleased to do it and I hope you will be satisfy."

Walker said this cooperation across the border is "very important" since returns on banded game is vital to studies by technicians concerning nesting, migrating and feeding habits of game birds.



This Month: Shotgun Shooting Tips

It's a bit hard here in the middle of July to envision falling leaves and frost, but the fact remains that shotgunning season is not too far away. Here in the north zone, at least, only a little over a month separates us from the opening of the dove season.

I imagine that there is as much misinformation floating about on shotguns as on anything associated with firearms and shooting. One shooter will take an oath that his particular gun shoots harder and farther than any other in the neighborhood, while the next will be firmly convinced that his 12 gauge will outperform his shooting buddy's 16 gauge. We have all heard that the guns of our fathers day would outshoot anything modern. Just how much truth is there in these ideas?

To begin with, let's discuss this matter of barrel length. Exhaustive

By JOHN A. MASTERS

tests by many different observers indicate that within the realm of reason, barrel length is not critical. Let's amplify that statement a bit. Shotgun pellets lose about 73 footseconds velocity for each inch trimmed off a given barrel. Therefore, a shotgun with a barrel 32 inches long will shoot only some 40 to 50 feet per second faster than one with a barrel 26 inches long, all things being equal. Within the range game is taken, this difference is insignificant. There is apt to be more difference in the velocity obtained from two shells from the same box. Therefore, it seems to me that barrel length should be selected more on the basis of how the gun handles than anything else. You will find that a shorter barrel handles better than a long one, and you

Shootin' Shorts

I got a chance recently to shoot a Smith and Wesson revolver with some of the new 44 Magnum ammunition. This case, if not the most powerful handgun cartridge ever developed, certainly is among the most powerful. The gun let go with a terrific roar, and the grip set back into the curve between my thumb and forefinger with more force than I like; as a matter of fact, after four shots, my hand was numb. I guess this cartridge must have been designed with some idea of finding a market for it, but personally, if I want that much power, I'll go to something with a stock on it.

Winchester now offers their Model 50 semiauto shotgun in 20 gauge. I haven't yet tried one, but it should make a fine little upland bird gun. With the $2\frac{3}{4}$ " Magnum loads now available in 20 gauge, it will probably serve pretty well for a duck gun.

Marlin now features MicroGroove rifling in all their big bore stuff as well as their 22 caliber line. Haven't tried it in the big bores, but the Model 322 Marlin in .222 Remington gave me some excellent results.

Sears Roebuck has a new semiautomatic 22 pistol in their line. So far, I haven't range tested the new gun, but it has an excellent hand filling grip, and appears to be well made. Price is reasonable.—John Masters may find that its superior pointing qualities will enlarge your kill.

A related subject to barrel length is the size of the hole in the barrel, or its gauge. Many shooters will tell you that a 12 shoots harder than a 16, a 16 harder than a 20, and so forth. Not so, say the ballistics boys. With equivalent loads, all gauges have much the same velocity. The difference in killing power exhibited by various gauges is primarily a function of pattern density.

A 12 gauge, a 16 gauge and a 20 gauge, all with the same degree of choke, will deliver the same size pattern at the same range. The 12 gauge, however, having a greater number of pellets, will deliver a denser pattern than the 16 or the 20, and by the same reasoning, a 16 will deliver a denser pattern than a 20. Thus, a 12 gauge is more apt to deliver a killing blow, EVEN THOUGH IT IS NOT MORE POWERFUL.

One more thing on power: It makes no difference whether your shotgun is a single barrel, double barrel, pump or semi-auto. No particular type action delivers greater power than any other type. Again, it's a matter of choice.

With these facts in mind, let's draw some rather obvious conclusions. In selecting a shotgun, one may choose any barrel length he likes, without worrying about loss of power. He may choose any type action that suits his fancy, without any fear of lack of power. He can within limits, pick any gauge, and the same will hold true. It seems clear, then, that the selection of a shotgun is based almost wholly on one's preference, and at least for up-

• Continued on next page

What If My Boat Capsizes?

In a nutshell, the Outboard Boating Club of America sums up what to do about a capsized boat:

"Boats don't tip over; people tip them. If you should capsize, stay alongside the boat. Hang onto the sides; don't try to climb in. Any wooden boat or metal boat with air tanks will stay afloat indefinitely and will support several persons. Relax, be calm, signal for help, then wait for it to arrive."

land bird hunting and small game hunting, the man with a 20 gauge is just about as well off as the man with a 12 gauge.

For duck hunting, there is some argument in favor of the 12 gauge as the best all around weapon, although recent developments in higher powered ammunition threaten to put the 20 and 16 into the duck hunting class.

So far as I am concerned, the 28 gauge is a gauge for the accomplished shooter, and the .410 is just not a practical hunting gun.

Perhaps the most important thing about a shotgun is the way the barrel is bored. Personally, with modern ammunition, I see little need for the full choke except for long range pass shooting at ducks and geese.

Modified boring is a much better choice, in my opinion. Modern ammunition delivers tighter patterns than the old style stuff, and a modified barrel today shoots about like the full choke did a few years back.

Improved cylinder is perhaps the best single choice for upland bird hunting, particularly in 16 and 20



Captive Confinement Plan Offered In Effort To Save Rare Whoopers

Authorities are considering a plan whereby at least four Whooping Cranes would be established in captive confinement in a final desperate effort to save the rare birds.

The proposal, which originated with Canadian conservationists, apparently developed from conflicting observations of pen held whoopers. While mating of the giant birds in captivity seems possible on the basis of two such occurrences, ordinary precautions of such arrangements do not seem adequate since both efforts were marked by loss of young.

Two birds conceived one young whooper at the Aransas National Wildlife Refuge a few years ago but the baby crane disappeared mysteriously a few days later. Two whoopers were hatched at the New Orleans

gauge.

My own solution to the bird hunting problem is a bit complex, perhaps, but I have found it to my liking. Most of my bird hunting is limited to mourning dove shooting. When I am shooting over a water hole, I have a fine little Model 31 Remington 20 gauge, bored modified, which I use with No. 8 shot. I like regular speed ammo, by the way. I find that up to about 30-35 yards, the little gun is deadly.

Another gun that I like to use is the Model B Savage double barrel 16 gauge with single trigger. This one is bored modified and improved, and its 26 inch barrels handle and point better than any light gun I have ever fired. I like this one also on quail and rabbits.

When they are flying high, or in jump shooting in cutover feed patches, I like a twelve a bit better. I am looking forward to this season so I can hit a feed patch with my new Remington Sportsman 58, which looks like a real dream of a shotgun.

I think that perhaps the best idea for a man who wants to use his shotgun for multiple hunting purposes is to have one of the many good choke devices installed. This will permit changing the choke to agree zoo this spring but one was missing shortly afterwards, apparently the victim of a predator.

The pen reared plan calls for capturing some of the few remaining birds and giving them maximum security, away from public and predators alike, under a career aviculturist.

This proposal marks a new migration season when northern reports indicate that the whoopers are scattered from Saskatchewan to northwest territory with a yearling member of the main flock even summering on the Aransas refuge wintering grounds.

Since the fight to save the Whooping Crane has become symbolic of the public's interest in conservation of our natural resources, authorities consider it potentially bad psychology not to exhaust every restorative effort.

with any given shooting condition.

Before the season opens, take your gun out to the range or any other convenient place, and check it for patterning with various shot sizes. You may find that it likes a particular size better than any other, a fact which will assist you to put the gun to better use.

I find that in my own guns, the regular low base ammunition gives better pattern, and has all the power I need for upland bird shooting.

To the shooter who plans to buy a new gun, I'd say make your choice first on the type of action your particular style of shooting finds most convenient. Consider next barrel length with an eye to handling qualities. With these things settled, select gauge and degree of choke according to the type shooting you expect to do most. You'll likely find that you do as well as the next fellow if you have picked a gauge that is comfortable for you to shoot-one that doesn't set back so hard that your instinct causes you to flinch. After you have the gun, pattern it with assorted shot sizes to find its best pattern, and you should be in business.



Sports Illustrated Magazine tells the story of Charlie Garvin, a Tennesseean who grew doubtful of the size of fish in stories about "the one that got away." In his sporting goods department he rigged a weight, which could not be seen, to a spinning rod and line. Then he invited customers to pick up the rod and guess the poundage of the hidden weight.

He offered to give the spinning rig to the person guessing closest. The actual weight of the "fish" was 14 ounces.

Out of over 100 guesses, only six guessed within one pound of the correct weight! Quite a few guessed as high as 18 to 20 pounds.

The winner was a Tennessee fishery biologist, whose guess of one pound was only two ounces high.

Occasionally, lightning strikes a fisherman in a boat. It's not that lightning has a particular liking for boats or fishermen any more than for the golfer or baseball player who meets the same fate. Lightning simply seeks the highest point in a given area. A human on the flat surface of a lake or field is the perfect target.

For protection, stay in low places. A car, because of its rubber tires, is the safest place of all.

Mark up a new world record marlin. Although the blue usually is an Atlantic fish, a 796-pounder was landed by Pablo Libero at Honolulu, topping a previous 756pounder from the Bahamas. The tackle—Ocean City reel, Sila-flex rod, Ashaway line, and Sampo ball-bearing swivels. Here's a tip on how to set a world fishing record—if you're a woman. All you have to do is catch a ling (cobia, cabio)—ANY old size—on line testing 20 pounds or under. Currently there is no world record listed in that class, and Texas coastal waters are full of ling!

And here's another tip for the ladies. Johnson Motors has just published a book, available free from their dealers, called "Ladies Aboard." It gives the lowdown on many feminine-interest subjects such as latest boating fashions, how to stay pretty for the men while boating, and how to cook on cruises.

I like this quote from ex-President Hoover. He said it on a recent television show:

"I explained why all Presidents fish. They all went fishing; they all have, even though they haven't fished before. And that is because American people have respect for privacy only on two occasions. One of them is praying and the other is fishing, and the President can't pray all the time."

Behind Heddon's new "Sonic" lure lies one of the most fascinating stories ever connected with lure development. One day while a group of Heddon research divers were underwater observing lure action, they entered a murky area. They couldn't see the lures—but they heard them.

That set 'em to thinking—and acting. They reasoned that fish used sound as well as sight in feeding, and discovered that fish heard best a sound of 4,000-plus vibrations per second. Then they set about developing a lure which would transmit such sound. The result was the Sonic, which employs an unusual vibrator fin to control sound frequency at the required pitch regardless of the speed of retrieve.

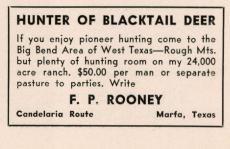
The Sonic is less than two inches long, weighs ³/₈ ounce, is shaped like a flat minnow, and is picking up enthusiastic boosters in Texas waters.

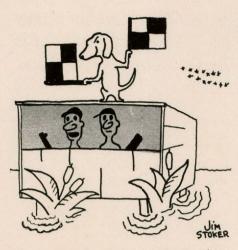
When your car threatens to bog down in the soft surface of a beach or river bottom, try deflating the rear tires as much as you dare. The softer, flatter surface gives much better traction than a relatively hard fully-inflated tire.

Fishermen are bound to benefit more and more as added adaptations are found for the new process which gives a hard coat and added strength to super-light "foam plastic." Weber Lifelike Fly Co. grabbed the process in a hurry this summer for its floating "bug" bodies. Their new "Dylite" is lighter, tougher, holds paint better, and the hook is molded solidly into the body. The big switch on a complete line as big as Weber's was a tremendous undertaking but appears well worth while.

A Texan, Doug English, manufacturer of Pluggin' Shorty and of Old English Lures, pioneered with the new process. He has adapted it to a complete line of superb floats available in dozens of sizes and shapes. A six-inch cube of the stuff, lighter than cork, can support the weight of an elephant by actual test!

Keeping matches dry in a tackle box is almost an impossibility, but making them waterproof is simple. Try dipping them in melted paraffin or in fingernail polish.





It's almost as if someone was warning them.

Horned Lizard_

better-known "rusty" or fence lizards and American chameleons as well as a few foreign lizards are also members of this large family.

The Texas horned toad is found commonly throughout Texas (except in the eastern-most counties) and in northern Mexico, west to southeastern Arizona and northeast through most of New Mexico, Kansas and Oklahoma. Texas is obviously the center of distribution and any occurring outside the state are probably descendants of outcasts; weaker, inferior types that could not be tolerated by their Texas forefathers. The largest ones would naturally be expected in Texas, reaching a total length of about five to six inches but most adults are about four inches long.

They are decidedly sun lovers and can be found most often during the hotter parts of summer days waddling around, rather awkwardly, feeding on ants, beetles, pill bugs, small grasshoppers and other such fodder. They live on dirt, sand or

DU Reports Waterfowl Nesting Near Peak

Broods are popping like popcorn all over the prairie duck factory, according to the July report from Ducks Unlimited. Late nesters and renesters were contributing daily as the hatch approached its peak. The average size of broods was running ahead of the long term average of six, according to spot field checks in all three Canadian prairie provinces.

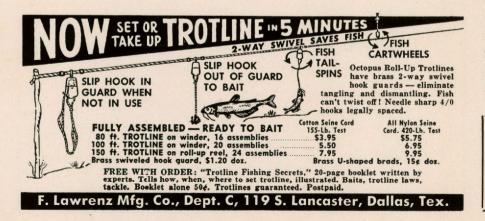
Copious rains have temporarily removed the drouth threat in southern Alberta and western Saskatchewan. Surface water conditions are

• Continued from page 5

rock soil types but prefer areas with little grass or shrubbery; they are seldom to be found in woods or grass prairies. Their tolerance to heat is apparently much greater than in most reptiles and many of them kept as pets refuse to eat because not enough sunlight and heat is provided. They apparently need little or no water but may sometimes be induced to t a k e small droplets sprayed on vegetation.

Horned toads are not much afraid of humans and frequently occur in greater numbers in vacant lots in small towns than they do in the less inhabited parts of the country. They are easily caught and seldom struggle very much when handled. When stroked, they often become stiff and puffed up and appear to be in a trance.

One of the strangest true stories about the little beasts is their ability to squirt blood out of their eyes. Only one lizard in several hundred will do this; one second someone will be holding a quiet, puffed up



generally good and are sufficient to see the young through to flying stage. There have been some scattered hail storms in Saskatchewan and Manitoba and some flooding from excessive rain in the important pothole area in Manitoba, but affected areas are small and will not significantly affect the duck crop as a whole.

Canada geese have done well in southern Alberta with broods of five to seven. They continue to spread and increase through the Brooks and Hanna districts and have become re-established as a breeding species in Saskatchewan and Manitoba.

Biologists are now running brood count surveys in cooperation with U. S. Wildlife Services and the Provincial game departments.

horned toad, the next he'll look down at his shirt and it will be sprinkled with very tiny droplets of blood. Close inspection of the lizard will show small spots of blood at the edge of each eye. This blood is entirely harmless and cannot blind a person or do any harm other than cause surprise. The horned toads appear to be the only animals capable of this strange action, although some other lizards have done it after an injury which weakened the membranes of the eye.

Horned toads can most certainly go for weeks or even months without food, water or very much air. One of the famous legends about the critters is that one was sealed up in the cornerstone of the county courthouse and exhumed a hundred years later still in perfect health and happiness. This is another "Texas Tall Tale" that has never been authenticated. You know the "boys" that sit in the shade on the whittlers bench on courthouse square don't have much to do but dream up stories like that. For some reason it has long been a custom to force a lighted

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cigarette into the mouth of a horned toad and watch the little bugger smoke. They don't smoke, of course, but merely keep their mouth shut (an almost forgotten virtue) and hold the cigarette.

Even in South Texas, horned toads hibernate during the winter months, staying under rocks, in crevices or rat holes, or buried in the dirt until warmer weather approaches. Activity begins in April or May and mating occurs soon afterwards. The females lay about two dozen small, white, leathery-shelled eggs in a pit four or five inches deep they dig in the dirt or sand. The oblong eggs hatch by the heat of the sun in from five to seven weeks and many small horned toads about an inch in length are seen in suburban yards and on school playgrounds in May and June. Adult male lizards may be distinguished by the glandular swellings at the base of the tail which are absent in the females.

Two other species of horned toads occur in west Texas. The mountain short-horned toad, *Phrynosoma douglassi hernandesi*, has been recorded in Texas only from the Guadalupe and Davis mountains and from Fort Bliss. They are rare

Bald Eagle Populations Show Serious Decrease

America's symbol of freedom, the bald eagle, is itself being denied freedom, says a release from the National Audubon Society.

Bald eagles have decreased alarmingly over most of their range and the United States may before long face the prospect of being represented by an extinct emblem.

The big white-headed, white-tailed birds have disappeared from many of their former haunts, and too often the reason has been illegal shooting of them, even though a \$500 fine and six months imprisonment can be an eagle shooter's punishment. Some estimates place the present bald eagle population as low as 1,000 pairs.

Another reason that eagles aren't as plentiful now is that many of the tall trees required for their eyries have come down when woodlands were cut over. and little is known of them in this state. Other forms of the species occur through the Rocky mountains as far north as southern Canada. They are just a little smaller than the Texas horned toad and have only a single row or spiny scales along the edge of the body. Coloration tends to be darker than in the Texas species with more red and brown and the dark markings are indistinct. The horns are much smaller and the body form is shorter and thicker. Young animals are born alive and number from 8 to 30. Surprisingly, they are reported to be quite pugnacious and may rush at a man hissing loudly with their mouth opened widely.

The bleached horned toad, Phrynosoma modestum, is found in Trans-Pecos Texas and the Panhandle, westward into New Mexico and southeastern Arizona and southward in north-central Mexico. They are small, reaching a length of about four inches. Two pair of short horns on the back of the head make up most of the armor, the back being rough but not spiny and there is no lateral fringe of spines along the sides of the body. The color is grey, tan or red, depending on the color of the ground on which they live. There may be no dark markings but sometimes there are indistinct blotches on the shoulders and groins and on the tail. The underside is white without markings. These little animals live in the dry desert plains on sandy or gravel soils where there are scattered shrubs and very little grass. Little is known of their habits but they are probably much like the Texas horned toad.

Yes, friend, fraud and faker, the horned toad is a real Texan; he



U. S. Mail Trucks Carry Smokey Bear Posters for Fifth Consecutive Year

Postmaster General Summerfield and Secretary of Agriculture Benson have announced that Smokey Bear posters will again be displayed on all U. S. mail trucks during the month of August. This will mark the fifth year in a row that the Post Office Department has cooperated in the nationwide drive to stop mancaused forest fires.

In addition to the truck posters, postmasters in over 200 cities have been authorized to cancel mail during periods of forest fire danger with special dies carrying forest fire prevention messages.

stands above the crowd as distinct and interesting in a world full of less bizarre forms of life. Unassuming, minding their own business, yet . well able to look out for themselves under adverse conditions, they have many characteristics to be proud of. I believe they should be given full and equal rights of citizenship if they could fulfill one last vital requirement of a Texan;—talk—talk talk!



Grayling_

• Continued from page 4

stocked. A stocking program for both grayling and cutthroat trout is being carried out in one lake. As a measure for protecting spawning graylings, irrigation on the Red Rock Lake Refuge has been curtailed or delayed until after July 1. This allows ample time for the spawners to return to the lake and for many of the fry to hatch and make their way into suitable habitat. Since sport fishing is one of the greatest pleasures afforded by these fish, limited harvests are allowed in this sanctuary under a creel limit of five fish. Those who are responsible for the management of the grayling believe that a limited sport fishery will not endanger the population where habitat is suitable.

Within two years following the application of these management measures a marked increase in the number of young grayling have been observed in some of the creeks within the sanctuary. During 1955, adult spawners were seen in three creeks where they had not been recorded for many years.

Sportsmen from all over the Unit-



ed States have become interested in the grayling. Because of their rarity many people make special trips to the area to catch one of these fish which, along with the trumpeter swan, has made the rather remote Red Rock Lakes Refuge very popular.

Possibilities for enlarging the present grayling range through introductions should be investigated. Some of the virgin mountain lakes in Montana can still be reserved for grayling. Certain isolated headwaters streams provide opportunity for developing grayling waters by restocking after poisoning of undesirable or competing species.

Grayling research in the Red Rock Lakes area has resulted in definite progress toward preserving the species in a small part of its original range. However, all may not be well with the grayling. Occasionally the conservation agencies have been criticized for expending time and money on the grayling program. Usually the opposition to these efforts stems from selfish interest and a failure to appreciate that the grayling is a native species and deserves as much attention as our trumpeter swan, whooping crane and other endangered wildlife. The majority of conservationists recognize the need for preserving the native grayling in numbers that will provide a limited sport fishery. This is not a job for conservation agencies only, but a task that will require the steadfast support of the conservation-minded public. Without continued management based on sound research, the grayling may go down in the history books along with the passenger pigeon, the Labrador duck and other extinct species.

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'Telephoning' Fish Draws Heavy Fines

Game Warden Herman Schliesing displays some of the fish and electrical equipmenconfiscated from six men arrested at Por-Lavaca for "telephoning" fish. The men were convicted by Calhoun County Judge Hartzog and each paid \$229.50, a grand tota of \$1,377, after being held in jail overnight until the court convened.

"The cnly way to stop a thing like this s to take the profit out of it," commented Judge Hartzog.

The fish shown are only a part of the zetch. The fish which were still alive were returned to the Guadalupe River, where the vicletors were arrested. The six men came from cities as far away as Houston and Ingleside.—Photo by Charley Adams.



Contraband Wild Game Search Law Clarified

Peace officers may search a person for contraband wild game only when there is "probable cause" for law violations, according to an interpretation by the Executive Secretary of the Game and Fish Commission based on an Attorney General's opinion.

Primary authority for this law enforcement function, the opinion stated, is vested within the Commission's warden force.

The opinion cited that the "probable cause" provision is frequently defined as "a reasonable ground of suspicion, supported by circumstances sufficiently strong in themselves to warrant a cautious man in the belief that the person accused is guilty of the offense with which he is charged."

Pollution_

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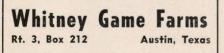
standard of living. But, we can have both large-scale production and clear waters if we really want both.

You can help prevent pollution, by insisting on good antipollution laws and by calling attention to the polluters; also, by urging the polluters to find ways of discontinuing



Gregg and Carolyne Whitney with another brooder of day old quail chicks that are just out of the incubators.

Whitney Game Farms are ready to supply you with healthy, disease-free birds—quail, pheasants and chukars. Mail your orders as early as possible.



Things You May Not Know

The champion traveler among birds is the Arctic tern whose annual round-trip migration route of 25,000 miles extends from the Arctic to the Antarctic.

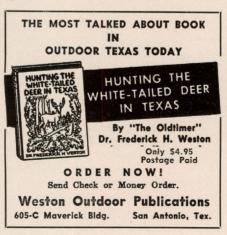
A hippopotamus has a stomach over 10 ft. in length—so large that it can hold 400 or 500 pounds of food.

One of the tiniest hoofed mammals is the mouse deer or Chevrotain of tropical Asia and Africa. About a foot high, the male is hornless but has short tusks.

their destruction of fishing, swimming, and other aquatic sports. An enlightened and determined public can stop most pollution.

If you plan to take a vacation trip. check first to see if the waters you intend to enjoy are unpolluted. The state water pollution control agencies and the U. S. Public Health Service now have the results of an over-all survey showing where pollution exists. If the waters you had hoped to visit are polluted, take your vacation elsewhere. But be sure to indicate to the Chamber of Commerce or tourist bureau why you chose to go elsewhere rather than to its community. The tourist business has become an immense industry. If tourists visited only areas with unpolluted waters, and indicated why they did so, many of our local pollution problems would soon be corrected.

Remember-pollution is a major destroyer of our favorite outdoor sport.



Ornithologists have found that birds sing an average of $18\frac{1}{4}$ hours daily most of the year.

The Peregrine Falcon is one of the fastest flyers in the bird world. It has been clocked at 175 miles an hour in a dive.

Reindeer are unlike other members of the deer family in that both sexes possess antlers.

As many as 15,000 eggs may be laid by the American toad in two spiral tubes of jelly, but less than one tadpole in a hundred will live to become an adult.

The Mute Swan is not really mute, as it hisses when angry and calls its young with a sound that may be described as a feeble bark. In England, this swan has had the status of a royal bird ever since the year 1482.



Manulacturer and Distributor 344 Wildrose Ave., San Antonio, Texas



TRAVELS AND TRADITIONS OF WATERFOWL by H. Albert Hochbaum. 301 pages illustrated generously with excellent black and white drawings, charts and diagrams by the author. Published 1956 by the University of Minnesota Press, Minneapolis 14, Minnesota. \$5.00.

Migrations of the birds have for many centuries been a source of wonder and speculation. Many theories have been advanced as to how the birds are able to find their way over long distances, and sometimes whole continents and oceans. What are the secrets of these un-mapped travels?

Some theorists say that birds travel by instinct. Mr. Hochbaum adds traditions of waterfowls as another big factor in the "mystery" of migration. All of the discussions and ideas expressed pertain to waterfowl lives and habits; more specifically the habits and travels of wild ducks, geese, and swans of North America. The author feels that in order to more fully understand the long migrations of waterfowl, it is first necessary to understand their lives and flights on their "home" ranges. A discussion of such local behavior in the vast marsh country of Manitoba, Canada, constitutes Part I of this book.

Part II covers observations and study

of migration over longer distances. Mr. Hochbaum, for many years Director of the Delta Waterfowl Research Station, stresses the fact that all of his observations have been of wild ducks, geese and swans and his theories and conclusions are based on these waterfowl and may not necessarily apply to other birds.

The part actual learning and tradition plays in the daily lives and acts of migration of waterfowl is the basic theme of Part III. How much of the route of flight of waterfowl is determined by so-called instinct and how much is learned tradition is discussed in detail.

This semi-technical book, illustrated throughout with charts, maps, and excellent and numerous pen-and-ink sketches by the author, should be of interest to wildlife biologists, naturalists and students, and all those interested in the mysteries of bird migrations.—J.R.

THE SPIRIT OF THE WILD by Dr. William J. Long. 256 pages. Published 1956 by Doubleday and Company, Inc., 575 Madison Ave., New York 22, N. Y. \$4.00.

Many of the little-known antics, characteristics, and habits of wild animals are included in this book of studies and stories by Dr. William J.

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Long, author, naturalist and teacher. It is the first of a series of three nature books which are being prepared from material and notes discovered after Dr. Long's death. The other two books will concern birds and fish.

Writen in an interesting and educational manner, many of the varied stories are related to personal experiences and observations which the author made during years of travel in Canada, the rugged Western country, and New Brunswick. There are many legends and supertitions concerning the animals which are seldom seen by man. Some of these legends are proved to be true; others are proved false.

Perhaps one fact which makes this group of stories outstanding is that each contains some oddity of appearance or habit about an individual animal which the casual observer never sees.—JR.

HUNTING OUR BIGGEST GAME by Clyde Ormond. 197 pages well illustrated with drawings and black and white photographs. Published 1956 by The Stackpole Co., Harrisburg, Pa. \$5.00.

Hunting North American big game is for most people a once-in-a-lifetime proposition. Often a man will wait for years for a chance to go after the "big ones." It is expensive, hard work, and time consuming. The terrain and weather encountered are rugged. But the rewards justify the effort and cost. A hunter returning with an excellent trophy of elk, sheep, or grizzly will feel the expenses of the trip are more than justified.

All phases of big game hunting, including modes of travel, types of equipment necessary, and excellent descriptions of the game itself are covered by Clyde Ormond. He has related many personal anecdotes and has included a number of photographs taken "on the scene." Sketches illustrate methods of tying packs, and range maps for various types of big game are included.

Whether you are planning a hunting trip, hope to take a trip someday, or are just interested in the outdoors, you will find this book interesting and entertaining.—J.R.



Industry Lends a Hand

Following the lead of many state and federal agencies, a prominent arms company buys an experimental area, seeking the answer to how game may be produced in conjunction with agriculture.

Remington Arms Company, Inc., has announced it will establish a wildlife management study and demonstration center on a 2,970-acre tract of land near Chestertown on Maryland's Eastern Shore.

A company spokesman said "Growing competition for land use stresses the need for intelligent land management practices wherein crop production can be combined with effective game management practices. We hope to show that this can be done with no sacrifice to the land's crop productivity and with material increase to farm game populations."

The need for large areas set aside specifically for experimental research in game management has been stressed repeatedly by the nation's leading authorities, particularly when such areas also are managed as going ranches or farms. Most state game departments, including Texas, maintain such areas, and the Remington project has gained much praise as a notable contribution from the field of business.

According to Remington plans, it will actively farm the tract's tillable soil and maintain cattle and dairy herds. From this, the company hopes to experience first-hand the farmer's problems and, in light of these, study new methods aimed at game crop production.

The spokesman said the company has purchased, subject to the conveyance of good title, Glenmar Farms, site of one of the East's major wildlife sanctuaries, from the estate of the late Glenn L. Martin, Baltimore aircraft manufacturer. Since 1940, Glenmar Farms has been identified as a key factor in the nation's effort to manage American wildlife.

National authorities, the company pointed out, place the wildlife of the nation in three categories: forest game, waterfowl, and farm or upland game. Existing conditions indicate that forest game populations are prosperous. However, with accelerated loss of wetlands and upland game cover through their conversion to farmland, establishment of small pond programs, refuges, sanctuaries and proper land use practices are becoming increasingly important if waterfowl and upland game populations are to be preserved. The company plans to use the experimental farms as a center in which old methods are improved and new ones devised.

The Remington announcement said: "Because of Mr. Martin's considerable contribution to the field of wildlife conservation and restoration, we are hopeful that our acquisition of the land he developed will be the first step in a program that will perpetuate and expand his valuable work."

The tract, which will be renamed "Remington Farms," comprises 23 farms with some 50 houses, barns, sheds and other buildings, as well as 14 fresh water ponds that serve as resting and feeding stations for as many as 50,000 waterfowl during the year's peak season.

Remington Farms' location is within easy access from Wilmington, Del., Baltimore, Md., and Washington, D. C., and is across Chesapeake Bay from the Patuxent Research Refuge operated by the U. S. Fish and Wildlife Service. The tract is composed of all types of land found on the typical eastern farmcropland, pasturage, forests, and wetlands-and, in addition to waterfowl, it supports quail, rabbit, squirrel, doves and deer.

The company said, "For many years, Remington Arms Company has been a leading financial contributor to the national wildlife program for two reasons: First, it is the company's responsibility as a good corporate citizen to assure the preservation of a valuable natural resource, and second, it is simply sound business procedure for sporting arms manufacturers to help assure the nation's sportsmen a continuing wildlife crop.

"However, the company believes it should not content itself with the mere contribution of funds alone. For this reason, we propose to use Remington Farms as a center that will contribute directly to the knowledge of conservationists, farmers, and others concerned with the maintenance of America's game crop. Our studies will be directed mainly toward land-use practices that will enable farmers to manage wildlife as an important and profitable addition to the crops they already produce."

Remington will make the demonstration center's headquarters at "Broadnox," a nine-room colonial house on the principal property. From there the company will also supervise the planting and harvesting of corn, soybeans, wheat, rye, clover and barley, and the tending of beef cattle and dairy cow herds included in the transaction. In addition to making available some five miles of tidewater frontage, the purchase also included a substantial physical plant and all machinery and facilities necessary to carry on a full farm program with related game management activities.

Remington indicated that once activities at the site have been organized, it will institute a series of field trips for visiting conservationists, wildlife authorities and educators.



A principal identifying feature of three species of Texas doves is the shape of their tails while in flight the rounded tail of the white-winged dove, left; the pointed tail of the mourning dove, top; and the squared tail of the ground dove, below. The vivid white patch of the whitewing in flight and the irridescence on the neck and breast of the mourning dove help distinguish these two similar birds. The ground dove is easily distinguishable by its small size and reddish-brown color. Drawing by Sidney A. Wooldridge.

