

# TEXAS Game AND Fish

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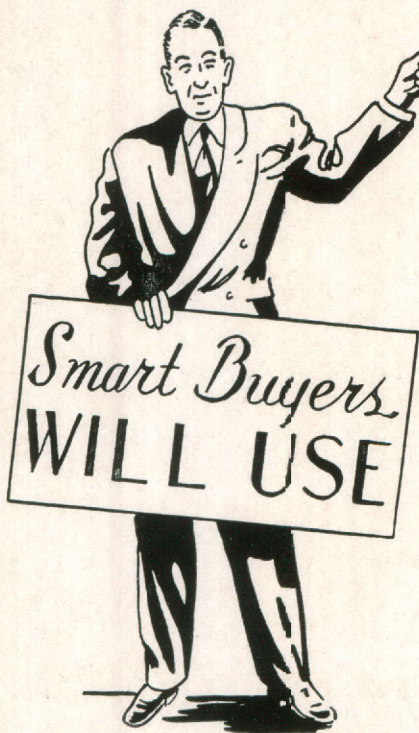
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## TEXAS GAME AND FISH

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# TEXAS Game AND Fish

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



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COVER—By Orville O. Rice

JUNE, 1948

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ROGER M. BUSFIELD  
Editor

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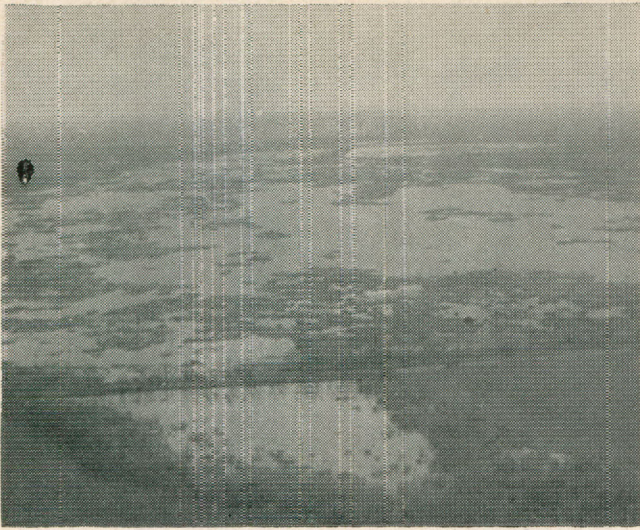
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Eagle Lake is the wintering haven for thousands of ducks.



Caddo Lake, with its oily pads, is another favorite duck haven.

# Texas Waterfowl Waters

**W**ATERFOWL live in a constant, never ending association with an aquatic environment. Without water the twenty-eight varieties and species of waterfowl that annually visit Texas cannot exist. Lack of aquatic habitat not only repels waterfowl from an area but it also destroys them. In other words, water to a duck is almost as essential as air is to man.

The surface water of Texas provides a wintering haven for several million waterfowl. The principal basis of our winter waterfowl range is the Gulf Coast line with its 400 airline miles from Beaumont to Brownsville, and 2,000 miles of shoreline. The bays, lagoons, and bayous formed by the outer chain of islands along the coast contribute some 1,500,000 acres of water that is available to waterfowl either for feeding or resting. Moving inland from the bays, we find 250,000 acres of marsh in Jefferson and Chambers County alone, with at least 500,000 additional acres of salt marsh and swamp

along the remainder of the Gulf Coast region. Striking inland again, we come to the rice belt which during the past year contained approximately 500,000 acres. Although this rice belt may not be classified as permanent water supply, it is of extreme interest to our waterfowl during their stay on the Gulf Coast.

The Rio Grande Valley and coastal ranches of South Texas provide between 3,000 to 5,000 intermittent lakes which

## By William S. Heit

vary in size from ½ to 50 acres. Their aggregate surface acreage may reach 100,000 acres and in wet years will be 50% larger. In central and north Texas, we now have 500,000 acres of water provided by lakes like Medina, Lake Worth, Possum Kingdom, and Buchanan. In East Texas, 222 lakes are classified as suitable for waterfowl; the largest of these being Caddo Lake. The total acreage of these East

Texas bodies of water is 76,500 acres.

Then, too, we must consider the Panhandle with its 6,000 wet weather lakes averaging 40 acres each, which in some years contribute 250,000 acres to the waterfowl management picture. Besides these, there are 5,000 acres of permanent lakes in the Panhandle. This total potential waterfowl habitat, from the aforementioned areas, approximates 3,681,300 acres.

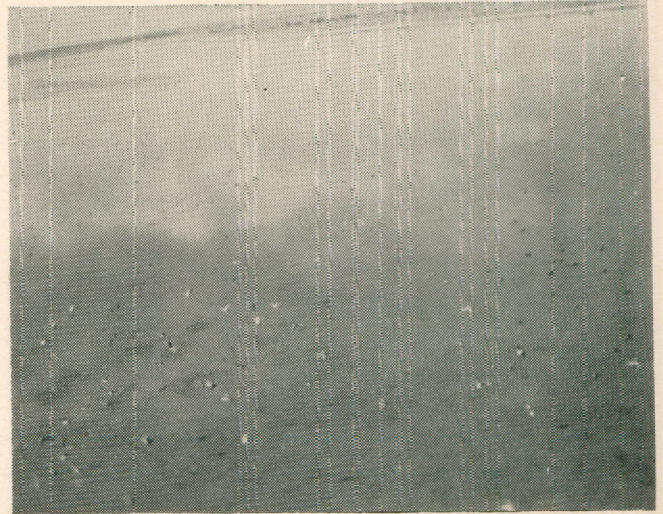
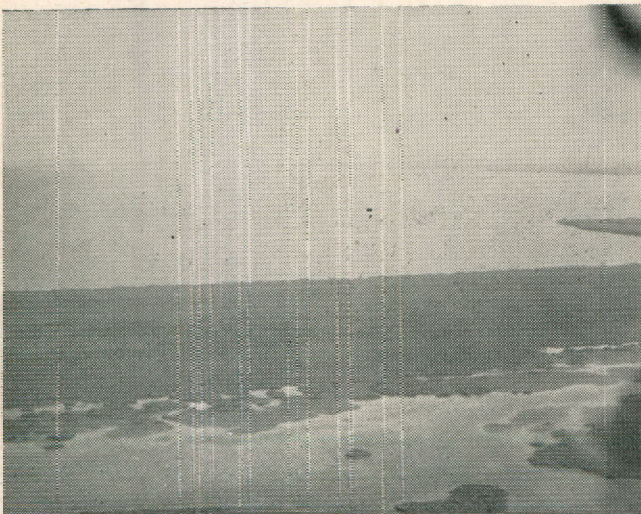
During dry years we might have to delete some one million acres to allow for the surface water not present in the wet weather lakes of the Panhandle and South Texas, as well as the drying up of parts of our coastal marshes. Even so, there would remain over 2½ million acres of water available to waterfowl.

Since the carrying capacity of the winter range is based on the amount and varieties of food available to waterfowl, let us look closely at this vast expanse of water

★ Continued on page 13

Waterfowl on the wing on the coastline of the fabulous King Ranch.

Waterfowl literally dot the marshlands during the winter months





# The 1947 Antelope Hunt

By O. F. Etheredge and W. C. Glazener \*

THE 1947 antelope hunt in the Trans-Pecos of Texas represented considerable expansion over previous years. This resulted from the inclusion of ranches not previously hunted, and the assignment of larger numbers of hunters to other ranches participating in hunts since opening of the antelope season in 1944.

During the spring and summer of 1947, J. W. Gilbreath, warden-pilot, and O. F. Etheredge, biologist, flew approximately fifty-seven hours in making census of antelope herds throughout the Trans-Pecos. The plane was a department-owned two-place Cessna 140, capable of a five-hour flight without refueling. In addition,

some supplemental checks were made by automobile.

Results of the census work are given in Table I, with regard to ranches considered for participation in the 1947 hunt. A total of 1,282 males and 1,780 females (adults only) were found on the thirty ranches involved. Recommendations as to the assignments, as shown in the last column of Table I, were based on the number of adult males observed. In general, not more than a seventy-five percent harvest of these animals was desirable. However, certain ranches scheduled for subsequent trapping were purposely hunted more closely, as was done in 1946.

Approximately 750 applicants filed for hunting permits. Applicants who did not participate in the 1946 hunt were first

placed, and "repeat" hunters were assigned to the remaining places by means of an impartial drawing of lots. Because of withdrawals, a total of 745 permits were issued; to fill 677 places.

The larger number of hunters involved required certain changes in the hunt organization. By setting up four three-day periods, it was possible to avoid overtaxing supervisory personnel, as well as hotel and restaurant facilities in headquarters towns. Consequently, Alpine was designated as the center for Hunt I on October 2, 3, and 4. Ranches included in this period were scheduled to accommodate 172 hunters.

Marfa was scheduled as the center for Hunts II and III, on October 6 to 8, and

★ Continued on page 17

TABLE I  
Trans-Pecos Antelope Census Data for 1947 Hunt

Ranch	No. of Antelope Present*		Permits Recommended
	Male	Female	
<b>HUNT I</b>			
Cartwright	11	13	7
Eppenauer	30	34	20
Hudspeth (Jim Baylor)	16	18	10
Kennedy	28	68	15
Kimball	11	46	10
Kokernot	110	170	60
McIntyre	66	52	15
Ponder	24	45	15
Stroud	24	45	15
<b>HUNT II</b>			
Bogel	49	37	20
Brite	86	94	50
Fletcher	13	35	5
Love	35	48	20
Petan	92	85	50
<b>HUNT III</b>			
Coffield	91	80	50
Everett-Moore	9	16	5
Gillett-Jones	75	142	40
C. A. Means	18	29	10
Mrs. D. O. Medley	14	35	8
Mimms	23	26	15
Moon-Medley	37	44	20
Turner (Eppenauer)	11	4	5
Smith Brothers	106	157	50
<b>HUNT IV</b>			
Baylor	78	152	40
Honeycutt	18	18	10
W. F. Jones	17	28	10
Moor	65	90	35
Moseley	27	46	10
Rounsaville	50	60	25
Sibley	48	63	25
Total	1,282	1,780	670

\*These do not include young of the year.

TABLE II  
ANTELOPE KILL BY RANCHES  
1947

Ranch	Hunters Assigned	Hunters Checked in	Antelope Killed	Percent of Success
<b>HUNT I</b>				
Cartwright	7	7	7	100
Eppenauer	20	13	11	84.5
Hudspeth (Jim Baylor)	10	8	8	100
Kennedy	15	14	13	92.8
Kimball	10	10	9	90
McIntyre	15	11	11	100
Kokernot	60	56	55	98.2
Ponder	20	21	20	95.2
Stroud (W. E. Barron)	15	12	12	100
<b>HUNT II</b>				
Bogel (Mrs. Jessie Hubbard)	20	20	20	100
Love	21	21	20	95.2
Brite	50	48	46	95.8
Fletcher	5	5	2	40
Petan	51	51	49	96
<b>HUNT III</b>				
Coffield	50	46	43	93.4
Turner (A. R. Eppenauer)	5	5	4	80
Everett-Moore	5	4	4	100
C. A. Means	10	10	10	100
Mrs. D. O. Medley	8	5	5	100
Gillett-Jones	40	34	34	100
Moon-Medley (M. O. Means)	20	15	14	93.3
Smith Brothers	50	40	40	100
Mimms	15	15	15	100
<b>HUNT IV</b>				
Baylor	40	33	33	100
W. F. Jones	10	9	9	100
Honeycutt	10	8	6	75
Lee Moor	35	34	31	91.1
Moseley	10	10	8	80
Rounsaville	25	24	17	70.8
Sibley	25	24	22	91.6



# Mr. Bobwhite's Dilemma

By Fred Weston

WHAT happened to the quail in South Texas? Sportsmen who attended the San Antonio Bird Dog and Quail Club's field trials recently at Pandora, began to realize the answer was there for all to see—the answer biologists have been presenting for years to non-attentive ears. The answer is simply the deterioration in the quality of quail habitat—food, cover and water—due to overgrazing and misuse of land, and not depredations by predators.

Ecologically speaking, South Texas was blessed with land types conducive to abundant bobwhite quail populations and most old time quail hunters remember the days when this fascinating game bird was to be found in numbers throughout this area. This was true even in the "Hill Country," where the bobwhite is now a rarity. But time and circumstance were to present an unpromising future for bobwhites.

Excessive grazing pressure deteriorated quail habitat noticeably prior to World War I but the real pinch began to be felt after 1920. During that war and the boom period which followed, overgrazing, clearing of brushland for money-making nonfeed crops, and unwise land use combined with increased hunting pressure cut deeply into the quail population.

The lot of Mr. Bobwhite improved during the depression years. Agricultural activity decreased; overgrazing slackened; habitat was improved by the conservation, soil erosion and strip-cropping programs financed by Federal money through work-producing agencies, notably the C.C.C. Reduced individual incomes likewise relieved hunting pressure to a great degree. But the relief was temporary. World War II brought increased agricultural and grazing activity and unwise land use which exists today. This condition has destroyed the good quality of quail habitat in South Texas. Viewing this with the knowledge that postwar pleasure seekers have increased hunting pressure to an undreamed high, it takes no great power to see what happened to the quail in South Texas.

It is true there are localities in this area where environmental conditions are still favorable to large quail concentrations, but they are alarmingly few in number and not available to the average hunter. The Texas Game, Fish, and Oyster Commission is aware of this and an attempt is being made to enlist the co-operation of landowners to cease abusing their ranges through overgrazing and to adopt soil conservation measures along with other good land usage practices.

From these measures, the landowner

will reap untold benefits and at the same time give our quail a more promising future. *However, Commission officials take a dim view of hopefully awaiting an increase in the quail population through wiser use of the land by the landowner. They recommend that individual groups take the more practical course of obtaining hunting rights on a specific area and with landowner cooperation, proceeding to adopt a thorough program of management.*

A co-operative project of this type exists today at Pandora. Sponsored by the San Antonio Bird Dog and Quail Club and guided by State Biologist Bob Mauerman, it is affectionately known as the "Pandora Project." Co-operating landowners pledged 9,000 acres of land and Mauerman went to work. Taking his first census, the quail population in the project area on February 20, 1946, revealed an average of one bird per 25 acres. His field study convinced him that the problem here was one of inadequate cover and intense hunting pressure, not one of food.

Corrective measures were adopted and he was blessed with a year of heavy precipitation. That the quail thrived under the new regime in the first year, is proven by the 1947 census which revealed a population of one bird to each eight and one-half acres. This increase came from

native stock—no outside birds were released in the area. Further gains were made in the second year. Although it was a year of drouth and unseasonable cold spells, the population jumped to one bird per each six acres in 1948.

Here is evidence that co-operative effort in management pays off. *Here too, is the answer to what happened to quail in South Texas—and what to do about it.* Brother, if you want to hunt quail like you did in the good old days, get yourself familiar with grazing methods, good land usage and quail habitat, then talk to every landowner you know. Keep crusading and practice what you preach by leasing a specific area of land for your own group's quail management project.—San Antonio Express.

## Bounty on Crows

Crow control by federal bounty payments is proposed under the terms of Bill S. 2130 introduced by Senator Hugh Butler of Nebraska. The bill, referred to the Senate Committee on Agriculture and Forestry February 4, would authorize the Secretary of Agriculture to pay 5 cents for each crow killed in the United States. Crow control is advocated by many sportsmen, wildlife administrators, and agriculturists; but there are different schools of thought on whether or not subsidized control measures are needed.

## Big Game Count Up

Big game animals in the United States increased their numbers by 25 per cent in the 3-year period from 1943 to 1946, according to the U. S. Fish and Wildlife Service.

A tabulation based upon federal, state, and private estimates shows a population of 8,240,400 in 1946 in contrast to 6,598,422 in 1943, and 5,156,611 in 1937. Michigan led the states with a total of 880,600 animals, mostly deer. Wisconsin and Pennsylvania followed in second and third place with 795,600 and 679,600 respectively. Kansas alone has no animals of big-game stature.

One of the most gratifying gains during the three years was in the numbers of Rocky Mountain bighorn sheep. At one time on the verge of extermination, this splendid trophy animal registered a strong 75 per

cent increase from 9,152 to 16,000. Moose populations rose from 14,803 to 23,000, a gain of 57 per cent. An 11 per cent decrease in desert bighorns, however, was noted, although they still are slightly more numerous than they were 10 years ago. The prong-horn antelope dropped 5 per cent from 246,000 to 233,000. Over 100,000 more of these fleet animals exist on our plains today than in 1937, and the present slight decrease causes no grave concern. The black bear nearly doubled its numbers over the past 10 years, and the grizzly bear is holding its ground. The note of pessimism which sometimes creeps into the thoughts of the conservationist need not encompass our big-game herds at the present time. Under wise management they are doing very nicely.



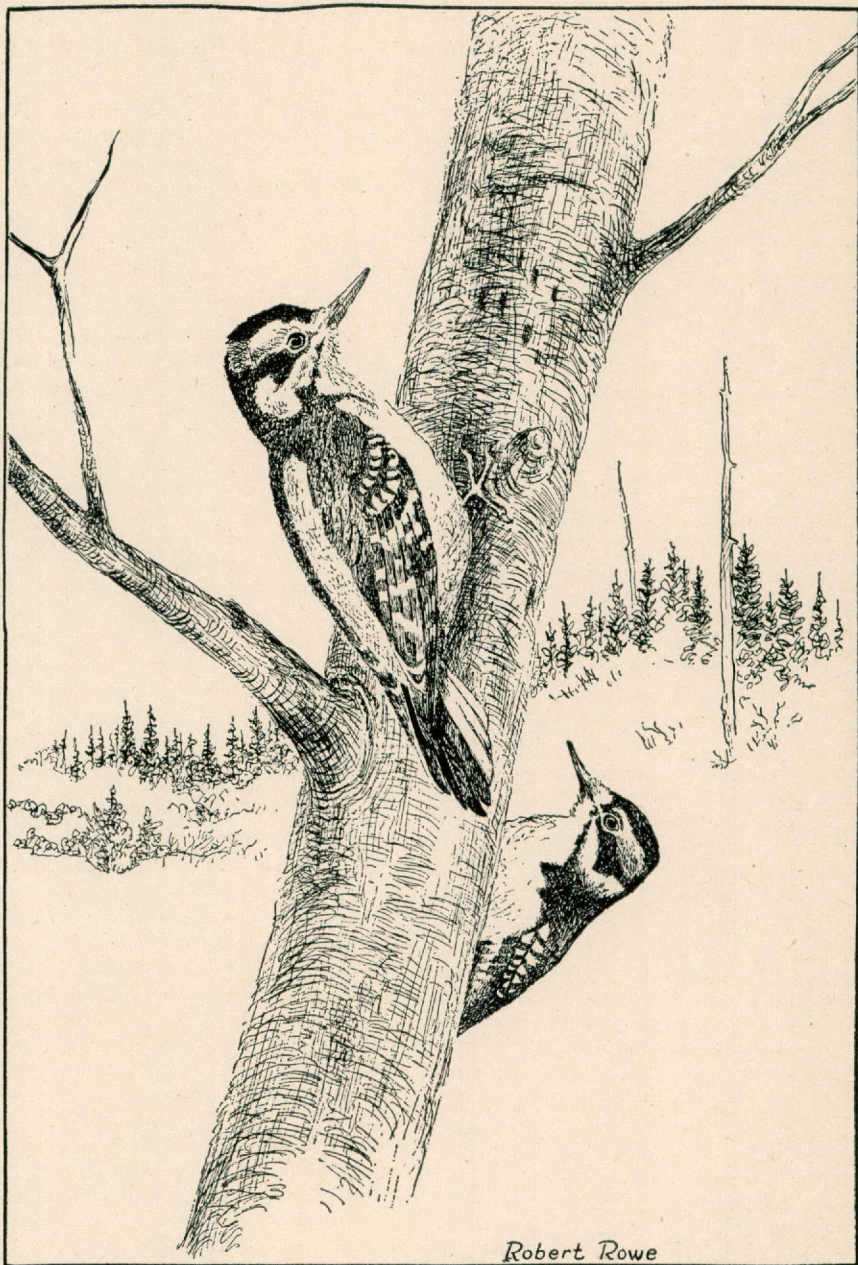
# A Friend of Man

By Earl Wallace

**I**F YOU have a tree in your back yard, you are sure to have the downy woodpecker for a visitor. A bird of the scattered woodlands, rather than the deep forest, he seems to make it a part of his duties to visit each tree within his range at some time during every day to search out varied morsels of food. Fruitbearing trees are his favorite, as these attract many insects, both to their bloom and fruit, upon which he can make a sumptuous meal. Besides picking up many pests such as the codling moth, beetles and leaf-eating worms, he bores beneath the bark to search out the apple tree borer, bark beetle larvae, and many others that destroy both fruits and even the trees themselves. This habit has, however, been the undoing of these feathered gleamers.

Some people without thought accuse them of injuring or even killing trees by pecking holes in the bark or trunks. I remember as a boy that many of my older associates sought out the woodpeckers as targets, in testing their marksmanship, because they believed him to be the pest of living trees.

Momentary decision, without the acceptance of research, condemns many of our wild things and thus reduces their population when, in reality they are friends to



## Downy Woodpecker

*Dryobates pubescens medianus*

*Other Names: Tommy Woodpecker, black and white driller, Guinea Woodpecker.*

*Description: Length 6½ inches, about the size of a sparrow. The adult male is tinged with bluish black on the crown of the head, sides of head, center of neck, shoulders, sides of back and upper tail coverts. The wings are dull black. The outer tail feathers are white. A small red patch on nape of neck. There are six white bands crossing each wing. The female is the same but without the red spot.*

*Range: All of Eastern America from Labrador to Florida, extending west to Nebraska, eastern Colorado, Oklahoma, and Texas.*

*Migrations: A permanent resident with little or no migrations.*

man and all the purposes of his civilization. All the woodpeckers are so condemned by the ignorant whose ideas are so positive that they are unwilling to accept the facts in relation to this useful family of birds.

A hardy little friend is the downy, who, like the chickadee and titmouse, stays with us throughout the year. Some dead limb or tree, in which he has chiseled a warm room, is his winter home. Here he lives in single blessedness, awaiting the warm spring, at which time another home is

built for him and his mate and family.

While never abundant in any locality, the downy woodpecker is seldom absent in any very large area of scattered trees, within his range. He seems to be pretty well distributed over all of the northeastern part of North America, without much choice for his home, which will be found in the city park, the open woodland, or the residence section of the city.

Friendly and buoyant, he will skip joyfully in front of you as you walk along,

★ *Continued on page 14*





# What Can the Farmer and Ranchman Do for Wildlife and What Can Wildlife Do for Them?

By Walter P. Taylor

Former Leader, Texas Cooperative Wildlife Unit

LET'S answer the second question first—What can wildlife do for the farmer and ranchman? A lot, if the conditions are right.

A few years back a couple of courageous Biological Survey men estimated the yearly income from wildlife over the entire United States. The figures were based on widespread observations and computations from all over the country. The total was well over \$1,000,000,000.00. For Texas alone it aggregated \$94,000,000.

More recently, and founded on more up-to-date calculations, Mr. Grady Hill of San Angelo, Texas, President of the Texas Wildlife Federation, has estimated the annual income to Texas businessmen and landowners at \$157,000,000 per year. For the whole country Arthur H. Carhart says \$4,000,000,000 is about the right figure for annual income from wildlife. This is nearly \$27.00 for every man, woman and child in America. The Director of the Fish and Wildlife Service of the United States Department of the Interior says the capitalized value of our fish and wildlife possessions is \$14,000,000,000. And when the fun and the recreation are included, the good doctor estimates the capitalized values at ten times that sum. Maybe you're wondering where all this money goes. That's easy, for it finds its way to transportation companies, service stations, hotels and camps, sellers of equipment, the telephone companies, boat building, sporting arms and ammunition, horse and dog raising, sports literature, provisions and beverages, cameras, optical goods, shoes and clothing.

But where do the farmer and the ranchman come in? In Texas he is in the front row, if he produces game, for hunting leases on Texas shooting preserves are among the most sought-after forms of property in the State. But this is not all—anything that so definitely helps all the other lines of business just mentioned creates a market for the farmer's product and can't help but make him more prosperous. If he wants to sell his land, he can charge five or ten dollars an acre more if he's got lots of game on it.

Well, then, what can the farmer and ranchman do for the wildlife—er will it come along without any help? It's true that wildlife production is as nearly pure velvet as almost any form of agricultural production. One doesn't have to buy the wild stock, he doesn't have to treat it for disease, he is not required to herd it, he doesn't have to feed it in winter. He isn't even taxed on it, for it is the property of the State! But like other kinds of animals, wild game must have feed and shelter. Obviously these essentials are provided on ranch lands by the right kind of pasturing. Without going into details all one has to do is to manage his pasture for the best production of domestic livestock to insure its doing an equally good job with big game.

But at that one can't ignore the big game, if he is to do the right thing by it. For every 100 pounds of deer it has been found that 2.34 pounds of feed are required

daily. If one's going to keep his pastures up to top production, over the years, he must see to it that their grazing capacity is not exceeded. He must have a pretty good idea how many deer he has, as well as livestock. Insofar as present laws permit, he should avoid overstocking, either with deer or domestic livestock. Every six or seven deer will consume as much feed, of sorts, as a mature cow. This stubborn fact must be taken into account in running every game-producing ranch.

Normally a fully adult doe deer will have two fawns each year. This means a high rate of increase.

An essential part of the job is making provision for the "harvest," not only of the livestock, but of the big game, too. The conscientious ranchman may ask, How many deer is it permissible to harvest? The question is easily answered, on paper at least. It presents more difficulties on the ranch. Assuming a normal deer population, a well managed livestock business, and a properly balanced population of domestic livestock and deer, about the same proportions of wild deer as domestic livestock should be taken off each year. Thus if, altogether each year, 25 percent of the livestock are removed—old cows, steers, bull calves, yearlings—a similar percentage of wild game might well be harvested.

But you say this can't be done under present Texas law and you'll be entirely right. This gives a hint as to a further service the ranchman and farmer can render the wild game, namely, to work for better, more scientifically based laws. Then the ranchman can take better care of his game, as well as his domestic livestock.

What are some of these laws? Perhaps we ought not to go into this, as we might be accused of arguing for or against a controversial proposal. It should be permissible, however, to give a hundred dollars worth of advice for nothing. It's this—join your local game protective association. Study the requirements of good conservation and good range and pasture management. Seek out your local game warden or federal aid game man, county agent, soil conservationist, or other technical man and get his advice. He's paid to help you work out these things and he'll be mighty glad to be called on.

Then see to it that your local game association is strongly represented at the State conventions of the Texas Wildlife Federation. Help your legislators to adopt better laws. Make it possible for your public servants, State and federal, to serve you more effectively. You know the only way to do this, give 'em money to work with and backing to get the job done.

The case was never more urgent. According to Executive Secretary H. D. Dodgen, hunting pressure has increased 57 percent in Texas from 1940 to the present, while stocks of game tend to dwindle. "One more century like the last, and civilization is through," said a great American leader recently. This might be said in some places of the sports of hunting and fishing. What are we going to do about it?





# A Kind Word for the Coyote

By J. G. Burr \*

IN the opinion of the biologist the coyote has certain values in the scheme of Nature, but after many years of predator control the animal continues to be a major problem in Texas, says C. R. Landon of the Fish and Wildlife Service in his last annual report. They are not playing out, and the increasing number taken is believed to be due to improved methods of their capture. The cyanide gun has been a most effective method and the general trapping technique has improved as experience has pointed the way.

Last year Landon reports the taking of 21,934 coyotes. One fifth of them were taken from the border counties of Webb, Maverick and Duval where infestation was highest. In the upper counties of Texas and farther north it has been possible to hold down the coyote population, but with the influx from Mexico along border counties the menace continues unabated.

Where control has been successful, and the coyote is able to find rats and rabbits we are glad to assign him the useful role of rodent exterminator, and toss him some credit for his contribution to the romance of the prairies. Therefore Mr. Graham has kind words for the much maligned "voice of the wilderness," the little prairie wolf.

There are two sides to most questions and Mr. Graham holds up his end of the argument with convincing logic. His story about "Spotted Tail" is a tale of merit. Writes Mr. Graham:

"It takes much time, close association and kindness to win the confidence and love of a wild animal. The hand of man has been against the coyote for centuries—deadfalls, arrows, poisons, steel traps, guns and dogs, have harassed him and decimated his ranks. He has much to forget! That his race is still here in numbers is a tribute to his wonderful cunning, courage, and sagacity.

"Unthinking thousands of men condemn many wild creatures without evidence and kill without mercy. If they come upon an animal, bird or reptile about which they know nothing, their first impulse is to kill it. Wise men base decisions on evidence. The unthinking act on impulse. I consider the coyote the most unjustly accused of all animals. He lives almost exclusively upon mice, rats, rabbits and other rodents and does far more good than harm. The most destructive animal is the big brown rat. He destroys property each year amounting to many hundred millions of dollars. The coyote helps to cope with the rat and if he occasionally

kills a chicken or turkey, he should not be condemned too strongly.

"If men would only consider that the Great Spirit put every animal and bird here for a purpose; that there is no animal or bird that is wholly good and a mean human is the meanest thing on this planet. He is the only animal I know that will swindle, burn, rob, rape and kill his own kind.

"This is a stern indictment, but it is the truth. If men would study the lives of the hunted, they would learn much—get an inspiration from the superb morality of many animals and birds; their loving devotion and self-sacrifice for their offspring.

"I have known Spotted Tail since he was about six months old, a poor half-starved puppy and we named him Spotted Tail because he had a spot on his tail about the size of a dollar. He responded to kind treatment and grew into a beautiful coyote, gentle as a Collie; a splendid

him loose. He hunted rats and rabbits like a hound, but was able to catch only one rabbit, which he got as it tried to pass through a woven wire fence. Spotted Tail was as proud of that rabbit as I would have been of a twenty dollar note. When I tried to take that prize from him, he growled—loud.

"I have many times been amused at him listening for a rat in the grass or brush and making spy hops trying to locate it. When at home, I kept him on a cow chain about thirty feet long and he became an adept at ambushing rats around the garage under which many lived. He would lie very still and woe unto the rat that ventured inside the reach of his chain.

"Spotted Tail was a superb weather prophet. If bad weather portended, he would howl dismally during the night before it broke upon us. I have often observed this same wonderful intuition in wild coyotes and wild geese, enabling

## Gid Graham Says the Little Prairie Wolf Does Good Job as Exterminator of Rodents

companion, except that when he saw a chicken, his lip worried him and he could not withstand the temptation to make a grand rush.

"Spotted Tail was an animated question mark. He was very suspicious of everything which he did not understand. He went with me to the postoffice every morning after the mail—distance one mile. I made these trips before daylight, because I rose early and Spotted Tail was always an interesting study on these trips. He feared walls, telephone poles, and distrusted electric lights. He rushed every cat he saw, and all the dogs were afraid of him. I have yet to see the dog that would not move when Spotted Tail approached him with arched back, bristles erect, mouth open and fangs bared, especially if the dog had ever met a wild coyote.

"Spotted Tail rebelled against being taken into the house or car, but once in the house, he never ceased his investigation of everything he could reach. On the floor were several skins of gray wolves. These we were compelled to remove or he would gnaw them. He studied the doors intently and the clock never failed to attract his closest attention. When he looked into the mirror he became excited.

"I often took Spotted Tail on long walks in the country; led him past houses where chickens were kept and then turned

them to foretell an approaching storm. The weather is a most important factor in the lives of animals and birds; snow and rain are dreaded by them all. Even many domestic chickens will crow about the midnight hour preceding a storm or bad weather.

"I was much amused at Spotted Tail ambushing a dog. Jim Porter was herding his cows in some kafir and cane south of town, where I often walked with Spotted Tail. Several wild coyotes lived in that area between two forested streams and as I approached, I heard Jim's dog yipping loudly about two hundred yards south and saw him making hops and coming for his master. I knew the cause, a coyote was boosting him.

"When he reached Jim, the dog was so excited he never paused, but was going for home—quick. He had quit the cane and made for the open prairie and was coming near us. I looked for Spotted Tail and saw that coyote standing, head lowered, tail straight out, as he watched the oncoming dog. When the dog came near, Spotted Tail made for him. The dog had just been routed by a wild coyote in the cane and now he was facing another.

"He wheeled and ran towards his master with Spotted Tail in close pursuit. Just as they reached an old binder stand-

★ Continued on page 14

\*Selected from "Animal Outlaws," by GID GRAHAM, Wildlife Historian





# ARMS AND AMMUNITION

By Adam Wilson III  
Gun Editor

## SHOTGUN SLUGS — Good for Nearby Game

HERE in the Southwest, shotgun slugs are far from being the most popular form of projectiles for taking our annual harvest of venison. However, occasionally I hear from fellows located in the East and South Texas brushland who want a little dope on the use of their scatterguns, loaded with slugs, for bagging bucks.

There are two outstanding reasons why the smoothbores are scarce in deer hunter's camps in this part of the country. First, there are only a few sections in the great Southwest where the shooting range can be short enough, even by the most skillful stalkers, to give the slow-traveling slugs, with their rainbow-type trajectory, a fair chance to do deadly work. Second, hunters in Texas and neighboring western states have a deep and sincere love for their rifles—whether they are the short saddle-gun type or the more accurate, long range variety—for taking all kinds of game except birds on the wing.

Venison hunters in a number of the Eastern states are less fortunate than we are along this line, as they are prohibited from using any type of firearm for deer except the shotgun; consequently, they must warm the smoothbore's barrel or use no shootin' iron at all. New Jersey laws, for example, require that deer be hunted with a shotgun because of the danger inherent in the use of a high-powered rifle in that densely settled state. Similar laws in other states are enforced for the same reason, therefore, the slug-slinging shotgun has to be considered a "deer gun."

Rifled slugs, which are a relatively recent development in shotgun "bullets," are usually, and I think should by all means be the choice of scattergun deer loads. Buckshots are advantageous(?) in only one way, as I have found them; and that is, a gunner is almost sure to get a hit. Yes, a *hit*, but always a *kill*, unless the range is considerably shorter than that required for effective kills when slugs are

used. A buck fired on with a 415-grain 12-gauge slug is a lot more likely to be dropped on the spot, or missed cleanly, (the way it should be) than one shot at with a charge of buckshot. Of course, more skill is required, and a fair knowledge of the slugs ballistics are necessary to make consistent hits with them. Over thirty yards, buckshot can be a cruel wounder and mutilator of game the size of our whitetail deer, even though they have been, and are used with reasonable success over longer ranges—under 100 yards. When a charge of the big pellets is released in the direction of a buck, it is a bit like throwing a handful of

six inches. A tree, standing directly on the other side and in line with the buck's shoulders, bears the mark of that 350-grain hunk of flying lead to this day.

Of course, had I spent fifteen or twenty minutes "sighting in" before departing on this particular hunt, the incident would not have happened as it did—I don't think. Being crowded for time on the afternoon that I received the first batch of rifled slug-loaded fodder, I rushed out, grabbed my rattling horns, and over the ridge I went. If a buck would come within fifty yards, I thought sure I would be able to find out what the new stuff would do to him that very day. Missing

that deer, I was reminded of a lesson I had learned long before. Never take a different type of ammunition or firearm out into the woods without first finding out how it performs.

The next day I found that ol' tommy was throwing 'em

about a foot high at twenty-five yards. No wonder the little eight-pointer bounced off unharmed, and not very scared.

One should never get the idea that slugs from the birdguns are not extremely deadly—within their range. And out of their best killing range, the big shot can inflict a bad wound up to five or six hundred yards—their extreme range. Twelve-gauge and sixteen-gauge slugs are much, much more effective than many of our so called "deer loads." Some hunters of dangerous African game and the European wild boar often keep slug-loaded shotguns handy, as auxiliary weapons, to stop charging animals from reaching their destination. Greater penetration is also achieved with the slugs than with many of our soft-point deer loads.

He who has done a lot of practising, and has become familiar with the amount of footage he must hold over his target at ranges over fifty yards, can make a good showing on large targets up to, and a few yards over, the 100-yard mark. A State

★ Continued on page 12



The original Model 1930 German Brenneke rifled shotgun slug, and (right) the American Nitro Express rifled slug—the ammunition maker's solution to the problem of firing a missile more accurately from a smoothbore arm.—Drawings by Wilson.

marbles at a target: Maybe one, sometimes two, of the balls will strike the desired spot, while the rest go wild. In these parts buckshot are used principally for slowing up two-legged "game" on the run who "done sumpin what they ought not of."

The round slug is just an obsolete form of the single-ball shotgun ammunition. Its accuracy is poorer, and its range is shorter than that of the rifled slug.

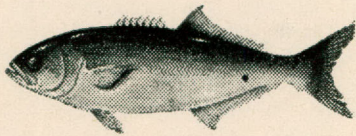
I always give seventy-five yards as the longest practical range for all deer-killing shotgun loads. Really, fifty yards comes nearer being correct for the pellet and round-ball type of load. I might add that it is darned easy to miss a deer completely with the one-piece shotgun projectiles at much shorter distances.

Back in 1937, when rifled slugs were first introduced, I rattled up a fat eight-pointer to within twenty steps of the muzzle of my 16-gauge "long tom." Talk about a "lead pipe cinch," I thought I had it! Standing broadside, he was, and I missed the top of his shoulders at least





## The Bluefish



**BLUEFISH**

*Pomatomus saltatrix* (Linnaeus)

**"THE blues are running!"**—Here is a magic phrase that spreads like wildlife among the salt-water angling gentry, for when the bluefish are schooling it means two things to fishermen—superb fishing and delicious eating.

Probably the arrival of no other fish is more eagerly awaited than the bluefish, for when the blues are running, everyone brings home a heavy stringer.

The bluefish stands alone for its lust to kill. Like an animated chopping machine, the blue horde moves relentlessly along, killing and slashing as many fish as possible.

It has been estimated that each bluefish will eat twice its weight every day. Ichthyologists maintain that the gluttony of this fish is so great that after the stomach becomes full, the contents are disgorged and the stomach is filled again.

As the blue move, gorging and snapping, following like a scourge behind food fish, they leave a bloody, oily trail marked by fragments of fish. Salt-wise fishermen locate many schools of blues simply by watching where the gulls are feeding on the leftovers.

**NAMES . . .** Although the vast majority of fishermen call it by the proper name, bluefish, many other colloquial nicknames are used in various parts of its range. Most common are: blue, blue runner, blue snapper, fatback, tailor, greenfish, skip mackerel, snapper, snapper blue and snapping mackerel.

**CHARACTERISTICS . . .** The bluefish is colored true to its name, a dark, greenish, iridescent blue. This characteristic body coloring shades off to a bluish silver on the sides. The pectoral fin, which is comparatively large, is gray-black at the base.

**RANGE . . .** The bluefish is quite the cosmopolitan of the fish world. In the Atlantic it is found from central Brazil to Nova Scotia.

In this country, the bluefish is most abundant along the Atlantic coast, com-

ing there as migrants in the spring. This fish seems to travel by whim more than the calendar but Virginia fishermen expect it about the middle of May.

Working slowly along the coast, the bluefish is noticeable in numbers toward the latter part of June as it presumably follows the trail of food fish. It usually shows up off southern New Jersey at the tail end of June but New York's Long Island may see them at almost any time throughout the summer.

The northermost range seems to be the Bay of Fundy, between Nova Scotia and New Brunswick. In some years, the bluefish has been conspicuous by its complete absence. And then again, the blue horde moves in numbers so great that schools of minnows are chased right up on the shore by these voracious feeders.

When bound for bluefish, look for it in the sloughs in surf, inlets, cuts, tidal lagoons and in schools both inside and outside the breakers.

**SIZE . . .** Although reports on the size and weights of bluefish will vary widely, the average caught will be found weighing from 5 to 6 pounds, in off-shore waters, while those taken in southern surf will average considerably smaller.

The largest authentic catch with rod and reel is a 25-pounder taken by L. Hathaway at Cohasset Narrows, Massachusetts, June 16, 1874. A larger confirmed catch weighing 27 pounds was caught by Nelson P. Elmer off Massachusetts during September, 1903, but not with rod and reel.

**FLAVOR . . .** Broiled, fried or baked, here is a fish that will meet every specification demanded by epicures, for the bluefish ranks high on the list of edible fish.

**FOOD . . .** Although any small fish is apt to be gobbled up when the blues are dining, menhaden (or mossbunker) are generally conceded to be the favorite prey. Other species fed upon by the bluefish are: spearing, squid, shrimp, mullet, sand eels and baby mackerel.

**LURES . . .** For trolling and surf casting, the favored lures are the various types of metal and eel-skin squids, also feathered jigs and plugs. For bait casting, both sinking and surface plugs produce results.

**METHODS . . .** Most of the oldtimers will be found getting consistent results through chumming. Going out, in a dory, menhaden or other fish are ground up in a

king-size meat grinder and are thrown out alongside the boat.

Fishing is done in the oily slick left by the ground menhaden. It is believed by old salts that the trailing bluefish will not follow the scent if the oil-slick is broken or not in a continuous streak.

The sporting angler disdains this messy, smelly way of fishing. He prefers to troll a metal squid or feathered jig about 75 to 100 feet astern, as he cruises from four to five knots per hour. Bait-casting with light tackle, in inlets and protected waters, is great sport and even fly fishermen at times take their share of blues. Surf-casting is highly popular along the entire Atlantic coast.

**TACKLE . . .** For still-fishing and trolling, the ideal outfit consists of a tempered bamboo or tubular steel rod like the "Pal," in the 4/6 class, meaning a rod with a four-ounce tip, five feet in length. With this is used a free spool reel with drag handle holding several hundred yards of 6, 9 or 12-thread linen line. Hook sizes range from 3/0 to 7/0 O'Shaughnessys in the tinned finish. A leader at least 12 inches long, made of No. 5 to No. 9 size wire, is necessary because bluefish have sharp teeth and powerful jaws.

For bait-casting, a medium-weight, tempered split-bamboo rod such as the "Riptide" in a 5 or 5½-foot length is preferred. Either linen or nylon line is suitable and such lures as vamps, salt water torpedos and sea runts are particularly effective.

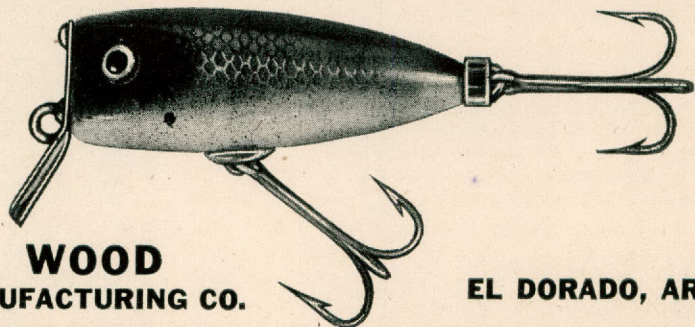
In surf-casting, the usual outfit used for such fish as channel bass and striped bass is suitable and cut bait is preferred.

Fly-fishing demands a sturdy rod in the Power-Plus action, in the 9 or 9½-foot length on a No. 2¾ or No. 3 ferrule. Here again, caution must be exercised by using at least a foot of light-weight wire leader while the lure may be smaller, lighter feathered jigs and spoons.

It has been truly said that a fisherman hasn't fished until he ties into a run of blues. This must be the motivating force behind those thrill-wise anglers who drop everything, grab their tackle and head for open water when the grapevine reveals—"the blues are running!"

The diameter of the heavy end of a fly leader should be about 60% of the diameter of the terminal end of the line for proper balance.

## DO YOU HAVE A DIPSY DOODLE?



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# Drive to Combat Duck Kill in Mexico Launched



Catfish grow big in the Rio Grande, as Warden F. O. Lytton proves with the above catfish taken from the Rio Grande near Eagle Pass.

## Arms & Ammunition

★ Continued from page 10

Ranger friend of mine prefers his pump saw-of shotgun, loaded alternately with slugs and buckshot, to a short rifle for use in emergencies that require more firepower than his pistol will furnish. He told me that he could put a 12-gauge rifled slug under the dashboard of a speeding automobile, traveling directly from him, after it had gotten 100 yards away. Many peace



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R. A. JENKINS

P. O. Box 42, St. Louis 3, Mo.

SPORTSMEN of two countries have organized under Ducks Unlimited against annual mass slaughter of wild ducks by "big business" Mexican market gunners.

A long-range program of legislation and education has been devised by 200 representatives comprising Ducks Unlimited's new chapter south of the border with Mexico's Federal Game Department cooperating to the fullest extent.

This move has been taken as a means of checking the annual wholesale wiping out of great numbers of these classic game birds and allowing more of them to return north each spring for seasonal nesting. Most of the birds are bred in western Canada, where the international waterfowl restoration agency operates, and to a degree in North central states.

The battery or "armada" system used south of the Rio Grande in killing wild ducks far transcends the huge totals taken by abandoned massacre of the birds by commercial gunners in the United States a hundred years ago.

Armadas, according to Ducks Unlimited's president, Morton W. Smith, of Minneapolis, are arranged in tiers of three individual batteries. The larger armadas operate with up to 600 fixed-gun barrels. A third of the total is set in the first and lowest tier and is aimed to hit vast rafts of sitting ducks. Another third, making up the second tier, is timed

to fire a few feet above the marsh as the birds rise. The remainder of the charges, comprising the third tier, are elevated and timed to catch survivors of the first blast in the air.

Weapons are made of iron tubes, or pipes, up to two inches in diameter. They are loaded through the muzzle with powder, paper and charges of small scrap iron or nails, nuts and bolts. Breeches are wired to electric batteries, fired simultaneously by a spark from a dry battery set off by switches at one-second intervals from safe distances.

The slaughter is accomplished after the ducks have been cautiously driven into range of the batteries from feeding areas. This is done with between 30 to 45 Mexican Indians at one operation. They carefully use horses or cattle as screens between themselves and the ducks, as the birds are frightened only by the presence of humans.

The Mexican market gunners, who for years have disregarded the U. S.-Mexican Migratory Bird Treaty Act banning commercial sale of wild ducks, start operating, says Ducks Unlimited, just as soon as the birds appear from the north in the fall, both prior and even after the lengthy four-month season opening November 16.

At least 15 different species have been made victims of Mexican mass wild duck slaughter which Ducks Unlimited is now fighting.

GAUGE	SHELL LENGTH	WEIGHT OF SLUG	RANGE	VELOCITY, F.S.	ENERGY FT.-LBS.
12	2-3/4"	(415 grs.)	0	1470	1995
			50 ft.	1400	
			50 yds.	1269	1485
16	2-3/4"	(350 grs.)	100 yds.	1120	1165
			0	1436	1600
			50 ft.	1370	
20	2-3/4"	(282 grs.)	50 yds.	1243	1205
			100 yds.	1100	940
			0	1410	1245
.410 bore	2-1/2"	(93 grs.)	50 ft.	1340	
			50 yds.	1213	923
			100 yds.	1071	718
			0	1470	460
			50 yds.	1180	295
			100 yds.	1030	225

officers claim that the rifled slug is one of the grimmest manstoppers available. Having never seen a man punctured with one of these particular types of missiles, I cannot speak from personal experience on that score.

Information given in the above table on Super-X and Super Speed rifled slug loads clearly shows the doubtful shooter that a slug from a 12-gauge gun will definitely give him more killing power (near the muzzle) than a 170-grain bullet from a rifle in the .30-30 class. (Muzzle energy of S.P. .30-30 is 1830 foot-pounds.)

I have included the .410 bore solely to show how inadequate it would be on deer-size game. The .41 caliber slug weighs the same as a .30 (7.65 m/m) Luger pistol bullet, leaves the muzzle at the identical

speed as a .32-20 pistol bullet (fired from a 6-inch barrel), and totes only sixty foot-pounds more muzzle energy than a .25-20 Winchester rifle bullet. A deer cartridge? One can form his own opinion as to how it would perform on a buck, or other game of similar vitality. I do not understand why the slug-loaded .410 was ever brought out. I would certainly use it only as a last resort, or experimentally, for restocking the meathouse.

Slugs have this big strike against their use. The arms in which they are fired seldom have adequate sights, and work with precision cannot be done—another good reason why their use should be confined to nearby targets.

Across the "pond" where slugs are more popular, certain makes of guns are fitted



with shallow open rear sights, which of course helps to some extent, but slug-shooting weapons were not made to give target accuracy. European hunters favor the Brenneke rifled slugs, and I have been told by gunners who have experience with them that they are more accurate, and deliver more of a smashing wallop than our American-made rifled slugs. Brenneke slugs are rather expensive in this country.

Contrary to a widely held belief, slugs have no effect on any choked shotgun barrel, but full choke barrels have a slight effect on the slugs. Although there is little difference in the appearance of a slug when recovered after firing from a full choke or open barrel, the projectile from the full choke tube will be about three hundredths of an inch smaller.

The rifled slug is the ammunition maker's solution to the problem of firing a missile more accurately from a smoothbore. The spiral grooves on the side of the slug cause it to rotate on its axis in flight and add to its stability. At the time of firing, the hollow base of the slug opens up, or upsets, in the barrel—an action which affects the slug much in the same way that the rifling in a rifle barrel affects a bullet. At fifty yards Western-Winchester rifled slugs group five shots consistently in a five-inch circle, and the average will vary to as small as three inches between center to center of extreme shots with some shotguns.

By considering 100 yards as their maximum range, and 75 yards, or under, as their most practical range, hunters armed with slug-loaded shotguns can bring home a lot of venison, killed as our game should be killed—dropped dead on the spot.

#### Now is Gun Repair Time

The best time to have your gun repaired, refinished or given a general going-over is right NOW, according to a Remington Arms Company official.

"A good many sportsmen put off small repairs and even overhaul jobs until the last minute and then hope for QUICK service," he says. "We could give much better service if they would not delay in sending these guns in and thus avoid the rush. If the repair is a minor one, or one not requiring special work, it will be best to turn it over to a competent local gunsmith who is not so far behind in his work as the repair staff at the factory. They'll get quicker service that way."

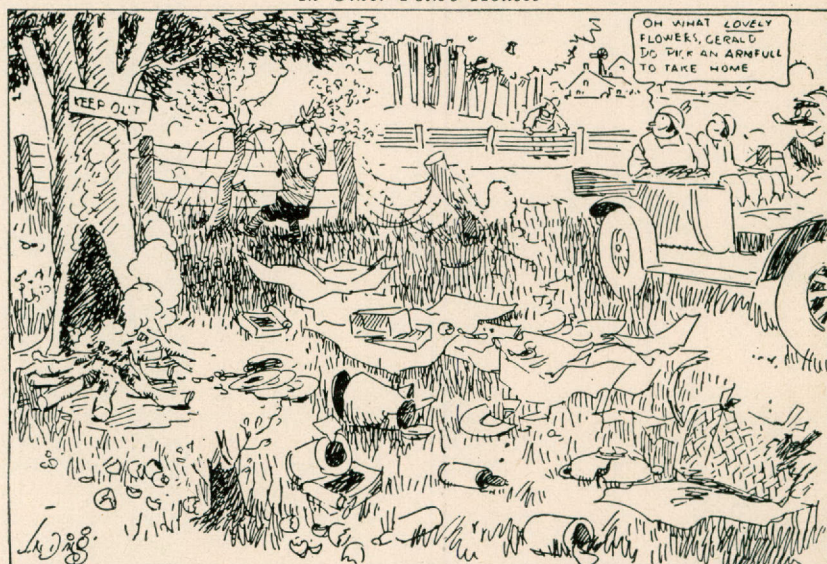
All gun manufacturers maintain custom repair and service departments for firearms of their own make. When the gun is received at the factory, it is registered and given a file repair number, then stored awaiting correspondence from the owner. Factory service men then give the owner an estimate of the cost of the work desired and suggest whatever additional work seems necessary or advisable. Upon authority from the owner, the repairs are made and the gun returned as promptly as possible. Each is taken in its turn, except in cases of emergency.

In sending a gun to the factory, it should be taken down and carefully packed in a good stout box or heavy, double-thick

### If We Treated Our Homes As We Do Our Woods



What A Lucky Thing Folks Never Took To Holding Picnics In Other Folk's Houses



Moral: Take Your Indoor Manners With You When You Go Outdoors

## Texas Waterfowl Waters

★ Continued from page 4

that is seemingly available to them. How much of this acreage is capable of producing waterfowl food, either plant or animal? Let us weigh the future of these waters in view of our experiences with the past one hundred years of so-called civilization, which has seen us drain or destroy

cardboard carton, or wooden box. The trigger guard should be tagged with the sender's name and address and the model and serial number of the gun.

A separate letter should be written to the factory which will explain in detail the repairs desired, referring to the gun by model and serial number. This letter should be mailed before or at the same time the gun is shipped. Have that gun put in shape NOW, and it will be ready when next season rolls around.—A. W. III

some one hundred million acres of waterfowl habitat in the United States alone.

Consider first the bays, bayous and lagoons of the Gulf Coast. Do they abound with aquatic vegetation and are they teeming with animal life? Once, within the memory of man, they were, but now because of wind action, silting, pollution, drainage, and disturbance of the bottoms by shrimping trawls, our aquatic vegetation, so vital to the duck and to fish life, is decreasing at an alarming rate. With this decrease will certainly come a consequent decline in the animal life associated with such aquatics as widgeon grass, turtle grass and shoal grass. For instance, in Copano Bay today, widgeon grass is a rare plant, yet within the past 50 years Copano was described as literally choked with this excellent waterfowl food plant. Observations on waterfowl concentration areas of the coast reveal that one can virtually

★ Continued on page 14



## Texas Waterfowl Waters

★ Continued from page 13

count the major areas on the fingers of his hand, and an analysis of these areas shows that they exist only because they are protected from the aforementioned limiting factors.

The status of our coastal region is such that if we locate areas that have waterfowl food, we are certain to find waterfowl there also, at least to the extent of the limited supply. Those of us who are concerned with waterfowl futures are grateful to the rice farmer, who whether he wishes or not, feeds many a hungry duck or goose with waste rice left in his fields.

The intermittent lakes of South Texas present a difficult management problem. When filled with water during the growing season they provide thousands of acres of waterfowl foods which greatly increase their carrying capacity. Then, again, in a dry year they are deserts that force waterfowl to other areas which may be already overpopulated.

Last year, because early unexpected rain fell in this area, thousands of these lakes were choked with banana-waterlily, chara, pondweed and other food-producing species. Recent surveys show that this region harbors thousands of gadwalls, pintails, and baldpates. What happens to the waterfowl in this area, during the years when the lakes are dry, can be determined only by continued observation.

The large lakes and reservoirs of central and north Texas serve waterfowl both as a resting area during migration and, to a lesser extent, as feeding and wintering areas. Some of these lakes are excellent waterfowl habitat, while others are barren of ducks and geese. Lake Mathis is an example of a prime waterfowl area, some thirty thousand waterfowl being observed there last December. Several of our major lakes do not provide extensive food, either animal or vegetable, and these are infrequently utilized. Others become a base of operations for wildlife that feed in the adjacent grain fields and river bottoms. Such a condition exists on the lakes south and west of Wichita Falls, which were reported to have a December population of nearly 17,000 waterfowl. In considering these lakes, we find potential possibilities in terms of food planting, water level control, as well as establishing certain portions for preserves or refuges.

The East Texas lakes usually provide adequate food and water, due to heavier rainfall in that section, and present no real problem other than their limited size. However, Caddo Lake, of which 52,000 acres are in Texas, has a problem of periodic floods which scour out the duck foods and carry them to the Gulf. In May, 1945, a flood raised the water level 14 feet for several days with a consequent destruction of water plants which may be responsible for a marked decline in the utilization of the area by ducks since then.

If so, proper management here would necessitate adequate flood control.

What of the future of these water resources? Will the inroads of civilization continue to deplete the dwindling areas? Fundamentally, the problem of conservation of water resources begins with the landowner and his use of the land. The Soil Conservation Service has made a great contribution along this road and it is hoped will continue to do so. Improper farm or ranch management, 500 miles from the mouth of our Texas rivers causes erosion, resulting in an increased silt load on the rivers, affecting plant and animal life of the lakes, deltas, and bays all the way to the Gulf of Mexico. Past descriptions of our bays and deltas of the coast compared with present status show distinct changes, during 50 years, in the fauna and flora, resulting largely from the effect of erosion and improper land use in the watersheds of our streams.

The future of the several million waterfowl that depend on Texas waters rests squarely with the people of the State, and our hope is that we shall profit from past disasters, and thus take steps to prevent further deteriorations of our aquatic habitat.

## A Kind Word For The Coyote

★ Continued from page 9

ing near the gate, the coyote overhauled the dog, caught him by the hind leg and the dog turned a flip-flop. It was a beautiful 200-yard race, nip and tuck to the finish.

"Spotted Tail helped me during the closest call I ever had. During one of our many walks, we passed through the pasture of Nat Turner, south of the city, where some cattle were grazing, among which was a large bull. When we were about 75 yards from the cattle, this bull charged. For a moment I was not sure of his intentions and stood still, watching him. When I saw the grave danger I was in I started for the fence. About half way the bull overhauled me. Having no weapon, I pulled off my hat and hit him in the face. He stopped; butted and stamped my hat until I got quite a lead. He again commenced the attack. If it had not been for Spotted Tail biting his heels, distracting his attention somewhat, I feel sure that I would not now be writing these lines. He was almost upon me

★ Continued on page 16

## A Friend of Man

★ Continued from page 7

tapping on bare limbs and hanging like an acrobat from the rough bark of giant shade trees.

When the winter winds recede and the earliest catkins begin to grow into golden tassels, the downy woodpecker preens himself for a season of romance. Selecting a deeply resonant limb, he starts gently to tap out his love call. As the days pass, this enthusiasm grows into regular bursts of violent drumming that can be heard throughout his realm.

Sooner or later, a female answers by lighting some distance away and then shyly working her way nearer her prospective suitor. After much squeaking and chasing, she flies away to another nearby tree, to be followed by the male. This, apparently, completes the nuptial ceremony and they set about building a new nest in some safe place.

From four to six pearly white eggs are soon deposited in a bed of chips at the bottom of the newly-made cavity. As the mother bird sits out the incubation period, Mr. Downy shows his devotion by cavorting from limb to limb on the nearby trees, gently tapping his affections for his mate. Perhaps his varied diet of insects, seeds, dried fruits and lunch at the feeding station, makes him the satisfied resident he ever appears to be.

If he has a choice of food in insects, that choice can readily be supplemented with a meal of suet or persistent berries. He is accused of distributing the seeds of poison ivy by eating the berries which seem to be one of his relished foods.

Woodpeckers as a whole are not gifted singers and the downy is even less of a

songster than some of his cousins. Only a guttural squawk of "Peenk-Peenk" is the extent of his musical repertoire. These noises, however, are uttered often as he searches out prospective food caches.

Downy is a resident, wherever seen, and is the smallest of the many species of woodpeckers found in the northeastern United States. He belongs to a large family of birds, there being something over three hundred and seventy-five species of the woodpecker family, about half the number being residents of the western hemisphere.

Truly a friend to the fruit grower, the gardener and farmer, is this mite of bird-dom as it has been estimated that, during one season, a single bird will eat as much as forty pounds of insects.

When bleak cold covers the land, this fragment of bird life busies himself about our home, adding his cheerfulness to an almost deserted landscape.

Try an interesting experiment by placing cracked nuts, crumbs or a portion of suet in your back yard feeding station. The downy will be among your first customers and, without a doubt, one of the friendliest.

When we review the useful traits of the downy woodpecker, let us remember that all of our song birds are equally useful in many ways; seeds of weed pests, injurious insects and decaying things are consumed by the various kinds of birds to the advantage of man. They add their activity, song and beauty to every landscape at every time of the year. They deserve our protection so that they might live on to add interest to future generations.



# LETTERS

## A Big Bass

Enclosed you will find check for renewal of my subscription to Texas Game and Fish. I am also enclosing snapshot of the largest bass I was able to land during 1947 from our local waters, an eight pounder that came up for my favorite surface lure. And incidentally, this happens to be the largest bass I have ever caught from our High Plains waters; have caught 'em bigger from down-state waters, but they just



H. C. Gentry and the huge Panhandle Bass he caught last year.

don't seem to grow to be as big up here as they do farther south.

And speaking of surface lures, the big fellows came up for plunkers later in the season in 1947 than I have ever known them to do in this High Plains area, where I have pursued my hobby of artificial bait casting for the big 'uns over a period of many years. Better than seventy-five per cent of my 1947 take of some forty or more of the big fellows, four to eight pounders—big ones for this area—came up for toppers. Bass fishing, however, was not any too good up here during mid-summer, probably due to drouth and hot weather conditions, but picked up with approach of the fall season and they went for toppers right along into late November, which is somewhat unusual up here. Catfishing, seemingly, was fairly good all the year.

It's been several years since I have offered anything for publication on fishery, or rather, on artificial bait casting, which along with advocating a universal fishing license, is about all I ever talk or write about along this line, and so far as I have noticed, it has been some time since this High Plains area has been represented in your columns by a fish picture. I trust you can and will find space for the picture, which is of just about as big bass as our Texas Panhandle waters produce.

Artificial bait casting is undoubtedly the

greatest fishing sport in the world, as well as the really sporting way to take the wily tribes. It affords plumb plenty physical exercise and thrills galore, especially when casting for big bass—our principal game fish of this area. It also gets the keeper sizes, since few undersize will take the kind of lure ordinarily used by experienced bait casters, which means more real fish meat from fewer fish taken from our lakes and streams and less destruction of and injury to the undersize. All of which adds up to good sportsmanship and conservation of our small game fishes right along with it. More and more power to our artificial bait anglers, including novices at the sport.

There's a technique for outwitting and taking the larger ones of most of the finny tribes, which for the most part involves the "WHEN-WHERE-and-HOW" to go about it. In the case of most game fishes, the right kind of lure properly presented to them will usually get the job done, provided, however, the WHEN to be out there casting, and the WHERE to be casting in certain waters at certain times of the day, as well as the HOW to make each type of lure perform as it should is given due consideration and observed. All of which, experience has taught me, will contribute more to the sport and success of a fishing trip than too much stress placed on certain periods of the moon, days of the month or what-not, to go fishing. And this may be applied to live bait anglers as well. They, too, may be able to make their live bait account for bigger fish if properly angled for about their feeding grounds at the right time of day, and into their haunts and hide-outs during other periods of the day, keeping that live bait in action, and on the move from one favorable spot to another.

Some knowledge of the feeding, fighting and hiding habits of the kind of fishes being angled for is very essential to the success of angling for the larger ones of any certain tribe, from the smallest of the sunfish families on up, which brings us to that old reliable piece of advice to anglers which says: "Know your lures—Know your fishes," to which I would add: "And above all; know the waters you wish to fish, in order to be at the right spot at the right time of day, being careful not to let the wise old bass know you are there." A study of these things by both artificial and natural bait anglers and the information gained from time to time put into use will make the sport more and more interesting each trip out, as well as more successful. True enough, there are periods when the wily old bass seem to be inactive, and not on the feed or prowl, in which cases they are usually in hiding. This is when we must appeal to their fighting qualities if we crave action, and is when the artificial lure can be made more successful than natural bait.

This kind of fishing provides plenty of thrills and can often be made quite successful at times when they are not on the

feed and a fishing trip may seem doomed to failure. It's one of my favorite and most successful tricks for outwitting and taking the big 'uns, and was the origin of my slogan for explaining in short, the reason I usually catch big bass most any time, whether or not they are supposed to be biting. I just catch 'em when they are biting and also catch 'em when they are fighting, or rather induce them to come out and fight. It can be done, and while the former only calls for skillful angling about their favorite feeding grounds, the latter calls for invading their hide-outs with certain types of lures to arouse their fighting spirit.

This involves the use of a fast-action, quick-diving lure well aimed into their haunts and brought into the water with a zip and at the same time on the retrieve to avoid a splash and should be kept on a moderately fast retrieve, which if accomplished on the first cast in a way to cause the fast-action lure to invade their home close enough, will most assuredly draw an attack if the big fellow is at home and does not know man, his worst enemy, is around. Maybe it will be a smash with mighty jaws, but most likely a vicious *bunt* with mouth closed, but with plenty of speed and force behind it. This calls for some quick action and fast work on the part of the caster if a contact is made and the hook set about the tough jaws or head of the fast moving fighter.

Yes, and this also calls for more of the right kind of tackle: Any fast-action reel, but most essential is a fast tip rod that will respond readily to the wrist movement, since the caster can be no quicker than the rod he is using. I use bamboo rods in the 5½-ft. medium weight, but I notice some new postwar rods coming out in a special tubular steel, and others of glass fibre, either of which is a close second in action to that of the bamboo and would likely get the job done.—H. C. Gentry, Amarillo, Texas.

## A Powerful Five Pounder

Age apparently is no handicap to some people and the Greenville Daily Herald offers definite proof in the following story which appeared in a recent issue of that newspaper:

"Mrs. M. E. Sturdivant, who resides at Peniel, loves to fish. The fact that she's 80 years old doesn't keep her from enjoying that pastime.

"Wednesday morning Mrs. Sturdivant sat along the banks at one of the water-works pools. Something started pulling on the line and Mrs. Sturdivant started to stand up and pull it in. In doing so, she got off balance and toppled down the bank. A couple of fishermen who happened to be passing by helped her back up the bank.

"On the hook was a 5 pound bass."



# Worth Living For

By Bogie Price

**T**HIS morning I was aroused by the rat-tap-tap-tap machine gun chatter of our first and best sign of summer. This being assurance that all is sunny and warm now until the wild geese again stretch their long necks south. This vibrant noise was made by none other than our good feathered friend, Mr. Red-headed Woodpecker.

This early bird makes quite a striking picture, decked out in his black zoot-suit coat and red cap. Now, let me tell you, this old bird knows his weather just about as well as our local weatherman Mr. Jones.

For the last few nights a most charming gentleman has been serenading his lady love from the roof of my house. Miss Texas Mockingbird has her nest in my neighbor's ash tree. Mr. Texas looks down on his lady love from the topmost perch of my roof. He sings in all his glory up into the wee hours of the night. Mr. Tex can mimic any of the feathered tribe. His tunes, if studied, will be found to consist of all our native bird tunes and many of domesticated fowls and birds.

So many of us neglect our sense of spring. It is, indeed, the Great Creator saying to us: "This is what I have given you. Can you, man, duplicate with your knowledge of science, color and sound what I have put here before you?"

Ride down the highways. Look for the beauty of the fresh, green colors of spring. Lock for the dogwood and redbud in April. Smell the fresh aroma of the air about you. Get out of your car. Ramble into the woods. Keep those ears open for the sound and music of insects and birds. Listen to the tunes they are playing for you.

When you get back to that old office chair or store counter, you feel like a new person. We know that God not only was kind to man when He said "Let there be light, and there was light. Let the earth bring forth grass. Let the waters bring forth abundantly after their kind, and every winged fowl after his kind, and let the fowls multiply upon earth."

Here is, indeed, strength and wisdom worth seeing, hearing and feeling. Let's not destroy our birds and woods by careless fires and overcutting of the dogwood and redbuds.

Boys! Before you point that air rifle at a bird, stop first, and listen to its song!

# Save Your Fish Worms

Angleworms are easy to get this time of the year, and you can pick them up on almost every patch of garden soil you turn over in spring. If you are a fisherman, it will pay you to save these worms. The time may come, next summer, when you need some worms for a fishing trip and won't be able to find any.

Last year, during the wet weather in April, May and June, it was easy to find worms, but after that they were mighty scarce. Usually, when July and August weather dries out the soil, worms can be dug along the creek bank, but that was not the case in 1943. The high water had stood on the banks so long after the flood receded there were no more worms there until some time in September. We know, for we tried to locate some several times and spent about two hours getting enough to bait three hooks for river fishing. Not expecting the flood, and assuming that worms would be available along the creeks in late summer, we did not put in a reserve supply in April and May. We shall not be caught napping this year.

When you store away your angleworms, put them in large cans or crocks and fill the container with the same kind of soil the worms came out of. Occasionally, put the coffee grounds you have left over on top of the can or crock and sprinkle a little water over it. Then put a cardboard over the top and set the can or crock in your basement where it is cool. Never allow the ground in which you keep the worms to become dry, and be careful that it doesn't become wet and soggy. You will notice that the worms will work to the top of the container and work down the coffee grounds and feed on it. Some fishermen put cornmeal in the ground for the worms to feed on, but if you do this you must be very careful as to the amount. If you get in a little more cornmeal than the worms can consume in a short time, your ground becomes sour and the worms

will die. Better not try it unless you have done it successfully in the past. Coffee grounds is all you need. About once every two weeks or so, depending on how many worms you have in each can, dump them all out and refill the can with new dirt. See that the dirt has the proper amount of moisture in it, and again put new coffee grounds on top. If you will take care of the worms in that manner you can keep them all the year.

The big, fat gumbo worms you find along the creek can also be kept alive in cans or crocks, but don't try to mix dirt. If you want to keep them alive, you must store them in dirt that you got along the creek and it must be of the proper consistency. If you put garden soil on these gumbo worms, you will not keep them long. Every time you go to the creek, get some new dirt and change it once a week. Watch that it does not become too dry.

(By The Izaak Walton Scribe in the Washington (Mo.) Citizen) and reprinted from the Missouri Conservationist.

## A Kind Word For The Coyote

★ Continued from page 14

the second time when some passing motorists, seeing my peril, stopped their car and made a demonstration, which slowed him up slightly.

"I barely had time to make a flying dive beneath the wire fence when he struck it. The bull was so angry he stayed there several minutes and challenged us, walking up and down the fence in the most truculent manner, pawing and bel-lowing.

"Spotted Tail continued to bite his heels and harass him until he finally lit out for the barn, distant about 400 yards. The coyote never let up on him until he got there. I will never cease to thank Spotted Tail for this. I have known coyotes and wolves to do things which seemed uncanny and proved they reason—think.

"Evidence: I led Spotted Tail with a small rope about 15 feet long, when we started on these walks, to keep him off chickens as we passed houses; he resented this. I kept the rope hanging over his bed in the garage. One day I left the rope hanging so he could reach the snap which I attached to his collar. He cut this snap off and buried it. Later, after a rain, we found the snap, just the tip sticking out of the ground. In a few days the rope fell. This time Spotted Tail cut it into four pieces and carried it as far as he could.

"Being absent from home often and



Gary Carpenter, of Santonio, showing his catch to Jimmy Lee Wilson, his cousin. And is he thrilled: Just look at that expression. Gary has been using a rod and reel since he was 4 years old and has caught several bass. He does his fishing in the Leona River, near Batesville.



having to leave Spotted Tail alone to be fed and cared for by others, we finally placed him in the zoo at Mohawk Park in Tulsa. He was given a mate and raised a family. We visited the park occasionally and marked his wonderful memory. He was a close observer and would recognize me among many visitors and exhibited his friendly greeting by leaping and whining low. I would approach the cage and place my ear close to the bars where Spotted Tail would caress it in the most friendly manner. Close confinement in a small cage, floored with concrete, proved more than Spotted Tail could long endure and he soon passed to the Realm Beyond. We loved Spotted Tail; he was an interesting animal; a devoted friend and never failed to interest visitors who took many pictures of him."

## The 1947 Antelope Hunt

★ Continued from page 5

October 9 to 11, respectively. This allowed dividing the possible 350 hunters into two groups.

Since ranches in Hudspeth and Culberson County (Hunt IV) were all considerable distances from towns, many of the visiting hunters established camps for the period of October 13 to 15.

Current regulations required hunters on Hunt I to bring their antelope to the ice

house in Alpine for checking by biologists representing the Game, Fish and Oyster Commission. Animals killed on Hunts II and III were similarly handled at Marfa. Three men were able to weigh, age, and otherwise check the kill and record these data, which are summarized in Tables III to IV of this report.

A continued high rate of hunter success was reflected, in spite of one forty-percent single ranch kill. (Tables II and III). On thirteen ranches, every hunter present bagged a trophy, and on eleven others the success rate was ninety percent or better.

Age-weight data for antelope killed in 1947 (Tables IV and V) showed no significant differences from figures secured on

three years preceding this hunt. The record antelope brought to checking stations weighed 91.5 pounds. Warden John R. Wood reported a 95-pound animal killed on Hunt IV, in Hudspeth County.

Hunters have expressed keen interest in the matter of rifles and ammunition used on the antelope hunts. Consequently, rifle caliber data was again solicited. That information, covering the first three hunts, is given in Table VI. In 1946, rifles of .300 caliber led with a slight margin over the .30-06. For 1947, the .30-06 took first place with a corresponding margin. There was a definite increase in the number of .270's, .257's, and .250-3000's on the 1947 hunt. A considerable number of the latter were used by lady hunters.

TABLE III  
SUMMARY OF SEASON SUCCESS DATA  
1947

Hunt	Hunters Assigned	Hunters Checked In	Antelope Killed	Percent of Success
I	172	152	146	96
II	147	145	137	94.4
III	203	174	169	97.1
IV	155	142	126	88.7
Season Totals	677	613	578	94.29

TABLE IV  
SUMMARY OF AGE-CLASS DATA\*  
1947

Age Class	NUMBER			
	Hunt I	Hunt II	Hunt III	Total
Young (1-3 years)	54	57	74	185
Prime (4-6 years)	62	69	69	200
Old (7 years)	8	9	14	31
Total	124	135	157	416

\*Includes only those animals brought to checking stations in Alpine and Marfa.

TABLE V  
ANTELOPE AGE-WEIGHT DATA FOR 1947\*

Age Class	WEIGHT*								
	Minimum			Maximum			Averages		
	Hunt I	Hunt II	Hunt III	Hunt I	Hunt II	Hunt III	Hunt I	Hunt II	Hunt III
Young	43.0	41.5	50.0	84.5	83.5	76.0	65.9	69.5	66.2
Prime	50.0	65.0	53.5	82.5	91.5	90.0	68.3	77.9	70.1
Old	70.5	56.0	60.5	84.5	86.0	76.5	75.9	77.1	71.9

\*Includes only those animals brought to checking stations in Alpine and Marfa.

TABLE VI  
RIFLES USED IN ANTELOPE HUNTING - 1947\*

Caliber	Hunt I	Hunt II	Hunt III	Total
.30-06	31	27	36	94
.300	38	26	27	91
.270	11	24	27	62
.250-3000	8	10	16	34
.35	10	10	9	29
.30-30	7	10	10	27
.257	4	7	3	14
.30	4	1	6	11
.30-40	2	3	5	10
.22 Hi-power	0	3	1	4
.25-35	1	2	0	3
.300	0	0	3	3
.220	0	1	2	3
.32	0	0	3	3
.25	1	0	1	2
.348	0	1	0	1
.351	0	1	0	1
.219 Zipper	0	0	1	1
.31	0	1	0	1
7 mm.	0	1	0	1
Totals	117	128	150	395

\*Data secured at checking stations for first three hunts.

## Things You May Not Know

By using its sensitive tail as a guide, the pocket-gopher can run down his hole backwards almost as fast as he can forwards.

All bumble bees die in the winter, except the queen bee. She alone survives to produce another generation.

There are probably very few animals which have played so important a part in the history of the world as the earthworm. Ten tons of soil passes through the body of each every year.

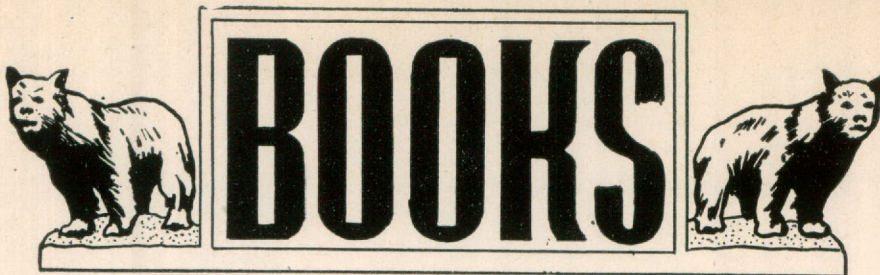
The largest bird found commonly along our southern coasts is the Brown Pelican. It is four or more feet in length and has a bill a foot long.

The Chipping Sparrow is the smallest of all sparrows. It weighs less than one ounce.

There is a record of a Wandering Albatross which measured 11 feet and 4 inches from wing tip to wing tip, making it the largest bird having the power of flight.

The musk deer is eagerly sought by the natives throughout the Orient as musk is valuable for perfume. In Mongolia a "pod" is worth five dollars (silver), and in other parts of China it sells for considerably more. The musk sac is present only in the male deer and is, of course, for the purpose of attracting the does.





# BOOKS

**MANAGING SMALL WOODLANDS—A GUIDE TO GOOD AND PROFITABLE USE OF FOREST LAND** (by A. Koroleff with the collaboration of J. A. Fitzwater)

72 pages. Illustrated with 37 clear "how-to-do-it" sketches by Rene Kullbach. Published by the American Forestry Association, 919 Seventeenth Street, N.W., Washington, D. C. Paper cover. Price \$1.00.

In this superb booklet, the authors have condensed an entire course in forestry for the small woodland owner who wishes to get the most out of his land. By the use of many exceptionally lucid pen-and-ink sketches, they have been able to keep the text to a minimum without omitting anything that might be of value to the person interested in managing his woodlot on a sustained-yield basis. All types of improvement cuttings, timber cruising, forest protection, logging, and marketing are handled in a clear, concise style. The booklet fills a long-vacant gap in the field of forestry literature. It is neither too technical for the farmer nor too elementary for the forestry student who might wish a quick review of the fundamentals of his course work.

**IS UTAH SAHARA BOUND?**—by Dr. Walter P. Cottam. 40 pages. Illustrated by graphs and charts. Published by the Extension Division, University of Utah, Salt Lake City. Paper cover. (A limited number of these booklets is available upon individual request without cost from the Wildlife Management Institute, Investment Bldg., Washington 5, D. C.)

Dr. Cottam, professor of botany at the University of Utah, has sounded a grim warning against the continued exploitation of the soil of his native state in this eloquent book, which was issued on the centennial of the establishment of the first white settlements in Utah. The story of floods, dust storms, erosion—their causes, effects, and remedies—is told in a clear, matter-of-fact style.

**SPINNING FOR AMERICAN GAME FISH**—by Joseph D. Bates, Jr. 247 xix pages. Illustrated with two full-color plates, 16 pages of half-tones of photographs, numerous line drawings, charts, and tables. Drawings by Milton C. Weiler. Published by Little, Brown and Company, 34 Beacon Street, Boston, 1947. Price \$4.00.

Here is the first authoritative and complete treatise on the art of spinning to be

published in the United States. This is the book the rapidly increasing number of American anglers, who have fished or are eager to fish with this new light tackle, have been seeking. Purists of Europe have been taking fish with the threadline and fixed-spool reel for many years, but only recently has this new and revolutionary type of angling invaded the Western Hemisphere. Few people in America have seen this novel equipment and a lesser number know anything of spinning finesse. Your editor possesses a deluxe, foreign made spinning outfit but was not able to get the answers to many spinning mysteries until he studied this fascinating guide.

In this book, the author outlines the history of spinning and reveals new opportunities of fuller sport with the light, weighted lure cast with a "backlash free" reel and special wand. In 15 chapters, Mr. Bates deals with the entire subject. All types of spinning equipment are described and explained, including the making of lures. Along with detailed instructions on fishing are hints and suggestions on techniques that every spinning novice should know. The book is written in a popular and interesting style.

**QUAIL AND PHEASANT PROPAGATION**—by Dennis Hart and T. R. Mitchell. 71 pages. Profusely illustrated with half-tones of photographs, line drawings, charts, and tables. Full-color cover illustration by the famous wildlife artist Walter A. Weber. Published by the Wildlife Management Institute, 822 Investment Building, Washington 5, D.C., 1947. Paper cover. Single copies available upon individual request.

This booklet is the first of a series of "know-how" bulletins to be issued by the Institute. It is designed to help individuals or sportsmen's clubs to provide themselves with better supplies of game. Game-bird propagation and release has been criticized in recent years, and rightly so, especially where state departments propagated game in large quantities merely for sportsmen to shoot. While providing information on the propagation of game birds in captivity the booklet emphasizes that this is only the *second step*—the first being to improve the land to accommodate the increased bird population.

There are varying systems for producing game. The method outlined in this booklet originated with George S. McCarty and has been developed by others, including the authors. Their experience embraces 10 years' operation of a model game farm, also experiments in adapting pen-

reared birds to conditions on farms operating in soil conservation districts. The cost of equipment is moderate. The units are designed for small scale operation, although the system can be used with equal success for larger production by increasing the number of units.

**FISH PONDS FOR THE FARM**—by Frank C. Edminster. 114 xii pages. Illustrated with excellent photographs, numerous line drawings, charts, and graphs which explain pertinent parts of the text. Published by Charles Scribner's Sons, 597 Fifth Avenue, New York, 1947. Price \$3.50.

Farm ponds are a real necessity in many sections of the country. Aside from their major purpose of furnishing stock water, properly managed impoundments pay their way in wholesome recreation and fish for the table. Every body of water, large or small, is attractive to many forms of wildlife. The several important uses of farm ponds are considered by the author. Mr. Edminster is a trained fishery technician, and for the past 10 years he has been in charge of the wildlife program including fish pond management of the Soil Conservation Service for the Northeastern States.

This book is a complete guide to the construction, stocking, and managing of fish ponds. After giving some of the history of ancient and modern ponds, the author presents the essentials for the practical development and handling of farm ponds. In a technical, yet readable and enjoyable style, you may delve into the minute details of pond site selection, the soil type and water supply needed, topography and drainage problems, dam design and construction, as well as management aids. This interesting and concise book should be read by all those who have fish ponds or would like to have them. It is a thoroughly up-to-date manual for both technicians and laymen who are interested in wise land use.

**GOIN' FISHIN' IN FLORIDA**—by Bill Ackerman. 96 pages. Copiously illustrated with many sketches, maps, and halftones of most of the Florida game fishes. Published by Goin' Fishin', 701-702 Langford Bldg., Miami, Fla. Paper Cover. Price 50c.

This is a "must" book for anyone planning a fishing trip to Southeastern waters. Written by one of the nation's leading outdoor writers and a prominent member of the Outdoor Writers Association of America, the booklet covers each section of the Florida peninsula and discusses in detail its facilities and fishing possibilities. It is filled with interesting and valuable information on the life histories of the game fishes of the region. The large-scale maps of the various fishing regions covered will be cherished by those planning a fishing trip into these waters.

The scent fluid of a skunk is seldom ejected except when the animal is highly aggravated. The animal will sometimes take a lot of abuse before doing so.



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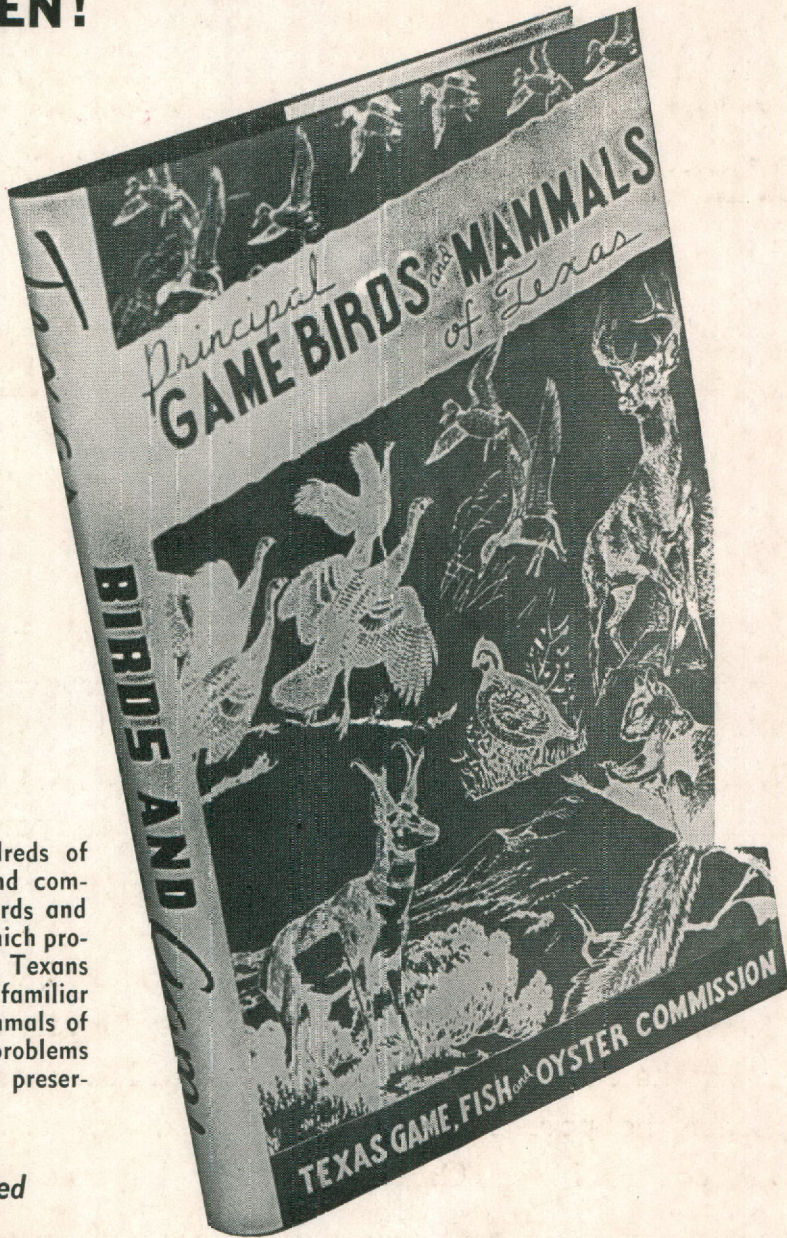
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