

# Texas Game and Fish

JULY

1961 7 1961 20 CENTS

Serials Department





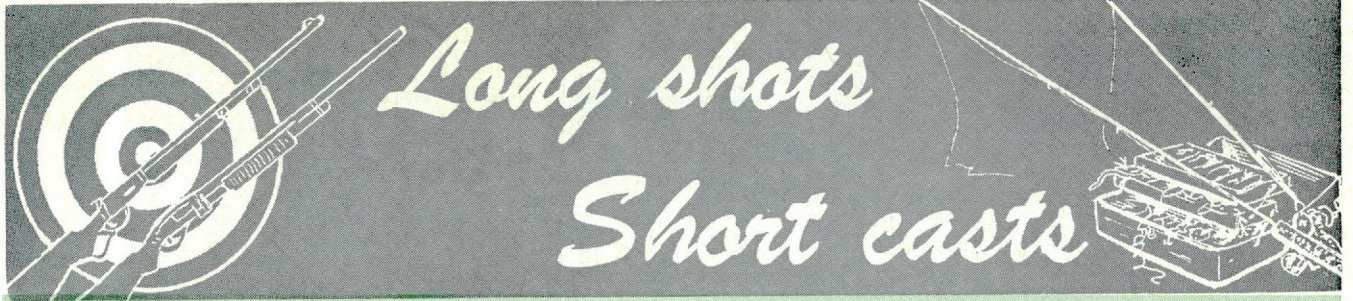


Photo by CURTIS CARPENTER

**IT WASN'T EASY** to get Barnie Carpenter to pose with his *little* friends. All the frogs he had seen before were no larger than his thumb. But when the bull in his left hand blinked its eyes as Barnie stroked its forehead, all fear vanished. Then the

junior outdoorsman liked frogs twice as much so he held two for the photographer. The croakers simply relaxed. Evidently, bull frogs, like people, know when they're in good hands.





**AN OUNCE OF PREVENTION:** Outdoorsmen, there are ticks in them thar hills! Wood ticks are carriers of tularemia and Rocky Mountain spotted fever, both of which can be serious. Take all precautions. There are sprays to repel the ticks and shots that can be taken before going into the field. Everyone enjoying the outdoors should examine himself carefully for ticks once or twice a day. If one becomes imbedded in the skin, a doctor should be called at once to remove it.

**EXPERT APPOINTMENT:** Thomas D. Rice, who has been executive secretary of the Massachusetts Fisheries Association since 1945, has been appointed special assistant to the Commissioner of Fish and Wildlife, U.S. Dept. of the Interior. Mr. Rice has a long record with the domestic fishing industry, and has served at various times as special consultant on fishery problems.

**NATURE IN A NUTSHELL:** 65 Audubon Nature Bulletins are now available, suitable for teachers and youth leaders. From four to six full-size pages, the 65 are \$5.95 plus 25 cents for postage and handling. They may also be bought individually at 15 cents for one, or 10 cents each for five or more copies, from the National Audubon Society, 1130 Fifth Avenue, New York 28, N.Y. All aspects of nature are represented, some of the titles being: "Plants as Makers of Soil"; "What Good Are Insects"; "Let's Explore a Back Yard"; "Our Friends, the Hawks"; "How a Thunderstorm Grows."

**WATER BOOSTER:** President Kennedy announced recently that his requests for public works funds for fiscal 1962 will include a \$22,390,000 water resources development program, including money for starting 19 new construction projects.

**SEA NEED SEEN:** Utilization of the sea for the benefit of the human race was the theme of the 12th meeting of the American Fisheries Advisory Committee, held in Washington, D. C. in May. Secretary of the Interior, Stewart L. Udall, pledged the support of the Department in making research of the sea one of the outstanding programs of the New Frontier, to increase efforts to learn the biological, chemical and physical secrets of the sea, and to make its vast protein resources available to the undernourished peoples of the world.

**DUCK OUTLOOK BLEAK:** Serious drought conditions on the best duck nesting areas on the Canadian prairies and in the Dakotas, Montana, and Minnesota threaten to sharply curtail waterfowl production again this year. Waterfowl breeding habitat is in a poorer condition than it was last year or in 1959. The drought also has resulted in an increase in the burning and plowing of waterfowl nesting cover. Where there has been only burning, the cover will reestablish itself. However, where a nesting area has been both burned and plowed, it probably will be lost to duck use for several seasons, maybe permanently.

**HELP ON ITS WAY:** American and Canadian conservation officials met in May to discuss international cooperation in dealing with management of waterfowl resources. The meeting demonstrated the concern in both countries about the rapid destruction of wetlands needed by migratory waterfowl, and an eagerness to save the good areas that are left. A joint committee may soon be appointed to study the situation, and to make recommendations for both countries to use as a guide to planning joint and individual actions.

**OUTSTANDING OUTDOOR WRITER:** The National Headliners Club has named the outdoor editor of the NASHVILLE BANNER (Tenn.) the outstanding newspaper feature columnist of 1961. It is the first time in the 27-year history of the press organization that an outdoor columnist has been so honored.



# Texas Game and Fish

THE OFFICIAL MAGAZINE OF THE GAME AND FISH COMMISSION DEDICATED TO THE PROTECTION AND CONSERVATION OF OUR NATURAL RESOURCES; AND TO THE IMPROVEMENT OF HUNTING AND FISHING IN TEXAS.

JULY, 1961

Vol. XIX, No. 7

L. A. WILKE.....Editor  
 CURTIS CARPENTER. Associate Editor  
 BILL HAYDEN.....Circulation  
 JOAN PEARSALL..Editorial Secretary  
 CAROLYN SMYRL.....Edit'l Ass't.  
 NANCY MCGOWAN.....Artist

TEXAS GAME AND FISH is published monthly by the Texas Game and Fish Commission. Subscription price \$2 per year, \$3 for 2 years, and \$5 for 5 years. Single copies of current issue 20 cents each.

Subscriptions to TEXAS GAME AND FISH are available from the Austin offices, and branch offices. Checks and money orders should be made payable to STATE GAME AND FISH COMMISSION, Editorial and Advertising Offices, Walton Building, Austin, Texas. Second class postage paid at Austin, Texas.

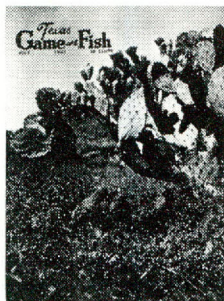
Postmaster: If undeliverable, please notify TEXAS GAME AND FISH on form 3578-P at the Walton Building, Austin, Texas.

TEXAS GAME AND FISH invites republication of material provided proper credit is given, since the articles and other data comprise factual reports on wildlife and other phases of conservation.

Produced by

INFORMATION AND EDUCATION DIVISION  
 T. D. CARROLL.....Director  
 L. A. WILKE.....Ass't. Director  
 LON FITZGERALD....Chief Photographer  
 TOM DILTZ.....Photographer  
 LEROY WILLIAMSON.....Photographer  
 LOUISE KREIDEL.....Business Assistant

## The Cover



In the semi-arid, western half of Texas, a species of quail has always been a very popular game bird. It is the scaled quail, *Callipepla squamata pallida*, shown in the color photo on the cover this month. Dan Klepper, *San Antonio Express-News*, caught this trio cooling in the shade of a flowering cactus, and shot them with his 4x5 camera. The little birds are ground runners and seldom fly. Consequently, they are hard on bird-dogs.

## ★ In This Issue ★

<b>Everyone's Loss</b> .....	<b>3</b>
by HOWARD D. DODGEN	
<b>Public Fishing Rights</b> .....	<b>4</b>
by HARRIS TOLER	
An Assistant Attorney General explains some very important laws.	
<b>Little Deer—Big Thrill</b> .....	<b>6</b>
by L. E. FRASER	
Three stages of enjoyment in deer hunting are explained.	
<b>Raise Your Fish Bait in Your Own Back Yard</b> .....	<b>8</b>
by ED ZAGAR	
Florida biologist tells of shiners, crickets, and worms.	
<b>Missing Markers</b> .....	<b>11</b>
Galveston Bay buoys disappear from fishing reefs.	
<b>Rigging for Gigging</b> .....	<b>12</b>
by CURTIS CARPENTER	
Proper equipment is important when you go for big bullfrogs.	
<b>New Game and Fish Laws</b> .....	<b>14</b>
by L. A. WILKE	
The 57th Texas Legislature passes 65 bills affecting wildlife.	
<b>Reservoirs—Troubled Waters</b> .....	<b>16</b>
by JOHN GARY WOOD	
Biologist urges fishermen to take up rough fish sport.	
<b>Lake Texarkana</b> .....	<b>18</b>
Photos by LEROY WILLIAMSON	
East Texas lake draws enthusiastic crowds.	
<b>Readers on the Rostrum</b> .....	<b>20</b>
by CAROLYN SMYRL	
Results of readership survey of Texas Game and Fish magazine.	
<b>New Lake Near Lufkin</b> .....	<b>21</b>
Lake Kurth is established as duck refuge.	
<b>Cleaning and Cooking</b> .....	<b>22</b>
by CURTIS CARPENTER	
Easy steps outlined for preparation of frogs for supper.	
<b>Tailrace Smorgasbord</b> .....	<b>23</b>
by JOHN CLIFT	
Fishing is always good below Denison Dam.	
<b>Official Event</b> .....	<b>24</b>
by JIM KOETHE	
"Gone Fishing" is the sign the town of Seymour displays every May 1.	
<b>Barnie and the bullfrogs</b> .....	<b>Inside Front Cover</b>
<b>Long Shots, Short Casts</b> .....	<b>1</b>
<b>Letters</b> .....	<b>31</b>
<b>Guns and Shooting</b> .....	<b>26</b>
<b>Outdoor Books</b> .....	<b>32</b>
<b>What Others Are Doing</b> .....	<b>28</b>
<b>Horned Toads</b> .....	<b>Back Cover</b>
<b>Junior Sportsmen</b> .....	<b>Inside Back Cover</b>

Price Daniel, Governor of Texas  
 TEXAS GAME AND FISH COMMISSION  
 Frank Wood, Chairman  
 Howard D. Dodgen, Executive Secretary  
 W. J. Cutbirth, Jr., Assistant Executive Secretary

Commission Members

Howard Carney, Atlanta	Ben F. Vaughan, Jr., Corpus Christi
Hal Peterson, Kerrville	H. A. Walsh, El Paso
Robert G. Carr, San Angelo	J. F. Corley, Houston
Carl L. DuPuy, Lufkin	W. O. Reed, Dallas

Division Directors

Marion Toole, Austin, Inland Fisheries	Howard T. Lee, Rockport, Coastal Fisheries
Eugene A. Walker, Austin, Wildlife Restoration	Earl Sprott, Austin, Law Enforcement
Joe Marks, Austin, Engineering	C. L. Friou, Austin, Fiscal Director



# Everyone's Loss

**V**ANDALISM IS SOMETHING a good sportsman fails to understand. It's just not in his vocabulary.

Yet vandalism in one form or another is a big problem facing conservation workers. There are too many immature, irresponsible people who wilfully and maliciously set about to destroy.

Some seem to do it for the mere thrill. Others perhaps think it smart. A few may do it for personal benefit. But whatever the motivation, there is no place for ruthless and needless vandalism anywhere.

Some typical examples of vandalism are the destruction of mail boxes, signs, trees, shrubs and flowers, breaking out windows in public places, and vacant houses, or writing names on walls, carving them into utility poles, or shooting the insulators of telephone lines.

This is brought to mind because of a recent experience. Right now we are confronted with a few who go about destroying markers along the Gulf Coast. The Game and Fish Commission, as a part of its service to sportsmen, anchored a number of reef markers in different fishing hot spots along the coast.

Within the last 60 days a number of these markers, highly important to fishermen in Galveston Bay, were installed over newly planted reefs. The shell industry had taken out old reefs and had planted new pads with live oysters. The Game Commission constructed others as a means to create areas to concentrate fish and to produce oysters. Markers were placed

on each new reef.

They were plainly marked with official signs. Fishermen in small boats were able to find them easily by anchoring close to the buoy markers.

Vandals thought differently, however. They set about removing and destroying the buoys until there isn't one of them left. Fishermen with small boats blame other fishermen with sonar equipped boats for destroying the markers. Whether this is true is not known, but someone for some reason has cost the fishermen some good license money and created inconvenience and disappointment.

This isn't the first time such vandalism has taken place. Near Port Aransas where the state created an artificial reef in the Gulf, a couple of years ago, all the original temporary marker buoys were destroyed. Then a permanent, lighted buoy was put in place and before it had been there a month attempts were made to cut it loose.

There are other forms of vandalism just about as bad. There are drivers who'll toss beverage bottles and cans out along the highway. Grass fires have been started with a carelessly tossed cigaret butt. After every lovely week-end the rights-of-way are littered with tissues tossed from cars.

Beaches are left littered with bottles, melon rinds and unused food scraps.

Unfortunately the guilty ones won't be reading this piece. But you may be of some help. Report the next act of such vandalism you see. After all, it's your property they are destroying.

*Let's put a stop to it.*

by HOWARD D. DODGEN

Executive Secretary

Game and Fish Commission



## Definition:

# Public Fishing Rights

by HARRIS TOLER  
Assistant Attorney General

**BY STATUTE**, the waters of every Texas stream (Article 7467, V.C.S.), as well as the fish therein (Article 4026, V.C.S.), are public property. The laws of this land provide that a citizen may take of "all wild animals, wild birds and wild fowl," subject to restrictions by law, such natural resources having been declared "the property of the people of this state." (Article 871A, V.P.C.)

Likewise, fish and other aquatic animal life was declared to be the property of the state (Article 4026, V.C.S.).

The rights of all persons to fish relate to the taking of same from the public waters of this state as defined in Article 4026, V.C.S., which reads as follows:

"All fish and other aquatic animal life contained in the fresh water rivers, creeks and streams and in lakes or sloughs subject to overflow from rivers or other streams within the borders of this State are hereby declared to be the property of the people of this State. All of the public rivers, bayous, lagoons, creeks, lakes, bays and inlets in this State, and all that part of the Gulf of Mexico within the jurisdiction of this State, together with their beds and bottoms, and all of the products thereof, shall continue and remain the property of the State of Texas, except insofar as the State shall permit the use of said waters, and bottoms, or permit the taking of the product of such bottoms and waters, and insofar as this use shall relate to or affect the taking and conservation of fish, oysters, shrimp, crabs, clams, turtle, terrapin, mussels, lobsters, and all other kinds and forms of marine life, or relate to sand, gravel, marl, mud shell, and other kinds of shell, the Game, Fish and Oyster Commissioner\* shall have jurisdiction over the control of, in accordance with and by the authority vested in him by the laws of this State. (Article 4026)

Appellate Courts of Texas have considered numerous cases in construing Article 4026 and though the courts have consistently held that fish in streams and coastal waters are property of the State (*Stephenson vs. Wood*, 35 S.W.2d 794 and cases cited), they likewise have held that though the public has the right to fish in public streams and waters this does not permit the right of ingress and egress across the lands of another for such would constitute a trespass. (*Heath vs. Diversion Lake Club*, 33 S.W.2d 479 and cases cited)

Fish become property of persons when such are legally removed from natural liberty and made subject to man's dominion. (*Jones vs. State*, 45 S.W.2d 612)

As stated above in the *Heath* case, the Legislature cannot confer the right to go on another's land to fish in lakes thereon and have not undertaken to do so. (*Smith vs. Goddard*, 295 S.W.2d).

Subject to all regulatory laws appertaining thereto, the public is privileged to take game birds, game animals, and fur bearing animals, as all are declared to be the property of the State. However, with the exception of the coastal waters, where migratory birds may be found, the habitat of the wild life is found on private lands. As has been stated above, though the wild life is property of the State and the citizens thereof, yet the taking of such creates a trespass unless the owner of the land grants his permission to kill or trap. *This is not the case in fishing public waters.*

The wild life resources of this state are the property of this state and are held in trust by the state for the benefit of its people with no proprietary rights existing in the people to such game and fish until such are reduced to capture in a legal manner.

Private lands are protected by laws against trespass (Article 1377B, V.P.C.). The rights of a person to own lands and the produce therefrom, is inviolable. The Legislature cannot remove such rights except for conservation purposes or where the use of such lands constitutes a public nuisance.

Wild life and fish are protected by the wise action of the Legislature in creating laws for the conservation of such resources.

The Legislature following the constitutional edict for the conservation of our natural resources, created what is known as the Game and Fish Commission, "hereafter referred to as the Commission" with delegated authority, powers, duties and functions to conserve the wild life resources. (Article 978f-3, V.P.C.)

Broad powers were granted to the Commission to provide, among other things, the season, size, quantity and species of the wild life and fish to be killed or taken. Many general, local and special laws have been enacted by the Legislature for the protection of game and fish and the accumulation of such laws together with rules, regulations, and orders of the Commission, constitute the Game and Fish Laws of this State.

The Federal Government annually issues orders relating to the taking of migratory birds, and such rules are adopted by the State of Texas.

Dedicated to the conservation of our wild life, the Legislature and the Commission have conducted scientific studies of the habitat, population, health and general conditions of the respective areas of the State, to determine when and in what quantities a portion of wild life or fish may be safely taken. Thus seasons are fixed, bag

\* Powers and duties of Game, Fish and Oyster Commissioner transferred to Game and Fish Commission—Article 978f-3, V.P.C.



limits provided, and the lawful means and methods of taking are prescribed. By this means, our wild life is protected.

Public waters as herein defined include all navigable streams. What constitutes a navigable stream is a question of many debates. The courts have adopted the definition as being a stream that has a average width of 30 feet from the mouth upward (*Hogue vs. Glover*, 302 S.W.2d 757). However, it has been held that a stream not navigable in fact is a navigable stream in law (*Mitchell vs. Town of Refugio*, 265 S.W.2d 261). A continuous flow of water is not essential to constitute a legal outlet or inlet.

There has been still further enlargement of the meaning of "navigability" of rivers and lakes over which claims of the rights of fishery between adjacent landowners and members of the public come into conflict. The judges have come to the point of declaring in most recent rulings in many of the states, that any body of water is navigable, and therefore available to any member of the public for fishing, notwithstanding objections from bordering landowners, if boatable for fishing, hunting or pleasure.

A navigable stream cannot be privately owned and the marine life thereof is the property of the state (*Maples vs. Henderson Company*, 259 S.W.2d 264).

In *State vs. Bradford*, 50 S.W.2d 1065, the Court said that the reservation of waters or streams to the public implies "all things necessary to the practicable and substantial use of and enjoyment of the things reserved," and that a liberal construction of the reservation in behalf of the public is required. The Court further said that "nothing there of express and positive language can suffice to evidence the intention to grant exclusive private privileges or rights in that held for the common use and benefit."

In the case of diversion *Lake Club vs. Heath*, 86 S.W.2d 441, the Supreme Court said:

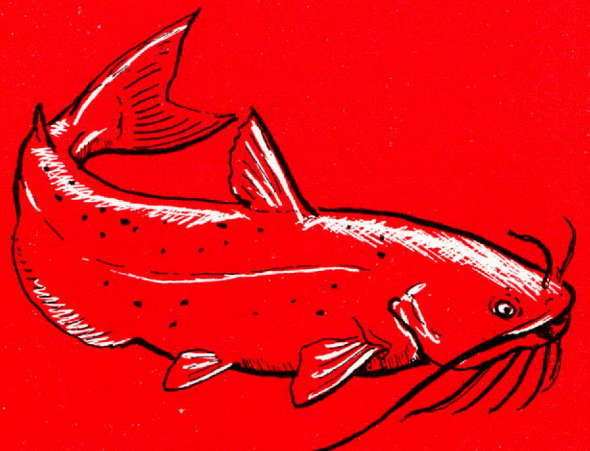
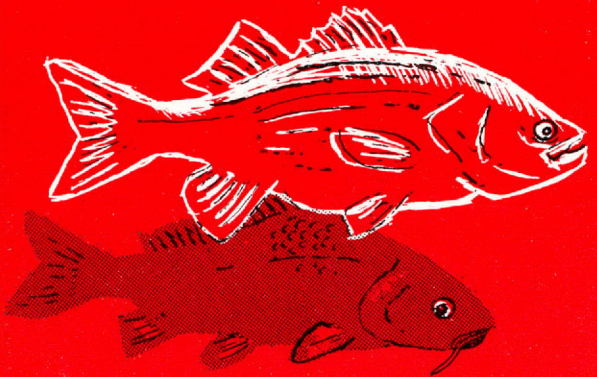
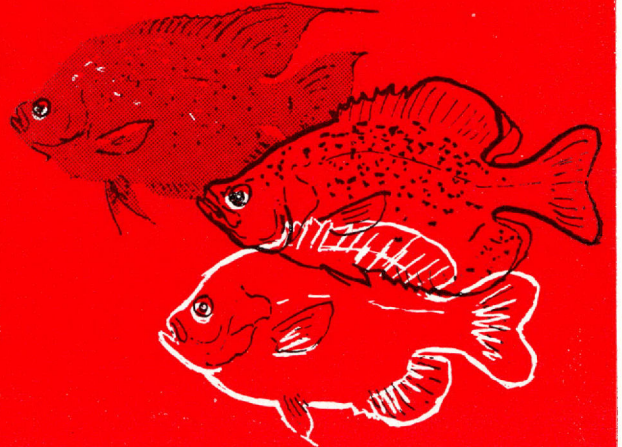
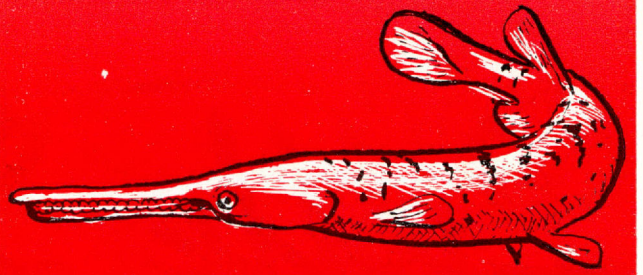
"Because of the state's ownership of the beds of statutory navigable streams and of their banks up to the line as above defined, the public may use their beds and banks up to such line for fishing. Beyond that line, unless the rule of the civil law is applied, they have no right to go without the consent of the riparian landowner."

The Court, in the case above cited, fully discussed the difference in the "civil law" and the "common law," as they apply to ownership and use of the banks of public streams. Such discussion is so long that it will not be used here.

Article 1377b, V.P.C., is the latest utterance of the Legislature relating to enclosed private lands and trespass thereon.

Many questions have been presented to the Attorney General with relation to the fishing rights of the public in and along navigable rivers. Likewise, many opinion requests relate to hunting, and questions involving the trespass law, Article 1377b, V.P.C. Among opinions of the Attorney General are numbers 0-5723 (1944); 0-1213 (1939); 0-6635 (1945); S-107 (1953) and S-208 (1956).

• Continued on Page 27





# Little Deer... Big Thrill

by L. E. FRASER

**B**AGGING A SMALL DEER with a scrawny rack can be a major hunting experience, even though it is not your first or last. To get the most of my deer hunting, I enjoy it in a series of three stages.

First, the thrill of planning the season, or perhaps just one hunt, provides at least one-third of the total enjoyment. I sometimes spend hours preparing my gear and weapons or just scheming each spring and summer preparing for next year's hunt. I have even, on occasion, taken the family on a long Sunday afternoon drive into the country and used this as a secret scouting trip for deer timber. Should my wife learn that I really was looking for deer tracks instead of wild violets, my mug would soon be hanging with that eleven-point rack on my den wall.

I classify the second stage as the field surveying or stand building time, which precedes the hunt or the season by one to three weeks. I go all out for this phase. In fact, some seasons I spend more time locating and building stands than I do actually hunting in them. It is the time to re-live every kill or previous hunt and to re-see every deer of past experiences. The hunter who can get a glimpse of a shot of his deer two weeks before

the season opens is reaping the real harvest of a hunter's dream. I have stood at a good crossing in early fall and visualized a trophy buck that could only exist in the city zoo.

Tree stands are my specialty. Nearly everyone uses this method in my area. I select a sturdy, young pin oak or two, prepare a rustic ladder that appears to have grown there and fashion a seat and foot rest so I can get a good view of the run. This can be an engineering feat equal to a Texas tower, and for me provides an afternoon of real outdoor sport. There are very few times when I go into the timber without a good hand ax and a bag of spikes. Some of the deer in my native hunting area honestly believe bridge spikes grow on trees in the place of thorns.

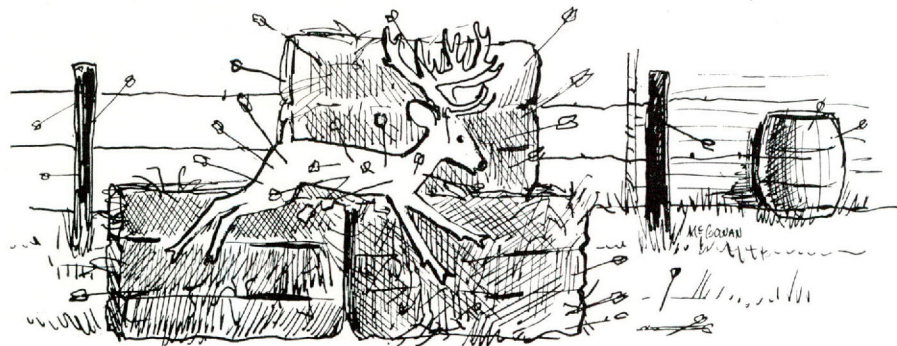
If these first two phases are enjoyed to their fullest, then a rainy day, a flat tire or a sudden business engagement on the day of the hunt won't steal all the thrills away and leave you disappointed until another season.

The third and final stage, the actual hunt or the instant of a kill, which some immature hunters believe is the biggest thrill of deer hunting, is at times really an anti-climax. A well aimed shot and your deer is

dead. If this occurs at daylight, the hunt is over all too soon, and the work is just beginning. If this climax comes at dusk, a wonderful all day hunt has ended. If it doesn't happen at all, it is time to reevaluate your technique or your basic reasons for having wished so hard for a kill. An old pro who always gets his deer, finds any season a nightmare until he kills out. This seems to me to be carrying hunting as a recreation too far.

My first deer was taken with a liberated German combination shotgun-rifle. I killed others in later seasons with various firearms. After several months of whittling, scraping, filing and sanding, I converted a military 8 mm Mauser to a Sportster and it proved to be a real killer for brush country. I used a 2½-power scope.

Guns were the rage around my house for a few years until the day Tom called and invited me out to his house on the lake. He had something new and wanted me to enjoy it with him. Now when Tom has something new, you can bet it would be nothing less than a new killer fish bait or a new litter of bird dogs. One time it was a sure thing for calling lonely foxes at midnight. As I drove into Tom's yard, I took a quick look at the usual—boat trailer, bird dogs, his cute wife working the flowers, carport and workshop overflowing with fish nets, fishing poles, barbequers, tools, etc. Everything seemed to be in place but something new had been added. Three bales of hay had been stacked between two fence posts with a sketch of a running deer drawn on cardboard and placed over the hay. I'll never forget how



A cardboard cutout of a running deer was hung on hay bales.





The doe jumped coyly into the brush as a buck followed in hot pursuit.

realistic that sketch was. That deer had a 20-point rack that looked like a rocking chair and a carcass that wouldn't have dressed twenty pounds. A second look gave me the picture and what a revolting picture it was. Feathered arrows were sticking all over the thing, and some even in the side of a pump house 20 yards away.

A rifleman taking up archery was just as revolting to me as for a fisherman taking up golf. I was tempted to put the old Chevy in reverse and dig out of there. But Tom had seen me and before I knew it, I was helping him lace up the skin off a deer leg into a quiver.

As the evening wore on, he encouraged me to take a shot or two at the target. He even let me bust a balloon or two at about twenty paces with a bow much too heavy for my arm and shoulders. As a result I was almost, but not quite, sold on the sport—for backyard use anyway. Tom wasn't going to let me out that easy though. He had a program all mapped out. After dark, we went down to the boat house for our usual visit and he casually suggested that we take a little ride on the lake. I didn't really notice that he had the bow in the boat with a glass fish arrow or two. Anyway, how was I to know that it was gar spawning time at the big hole at Devil's Elbow. Just as we pulled up, Tom let fly with an arrow and handed me the surf casting rod. Boy, what a game it was playing that six foot gar with an arrow sticking in his back.

As you might expect, the rest is history. After a trip through the Ben Pearson factory, made possible by a

good friend, I was out shopping for equipment. And for the next three years archery took equal time with fishing. I even made a few trips during hunting season to scare the wits out of rabbits and squirrels, but never really hurt one.

My first success was with an old coon chasing a crawfish along the lakeshore. After all, a coon's tail attached to an arrow makes a pretty good trophy, or at least a good conversation piece. The next success came when my neighbor called and stated that a prehistoric monster was digging up his yard. I rushed over and, with a blunt, put that old armadillo in his place. This made me the official varmint exterminator of the neighborhood; however, I soon found that archery equipment is a poor substitute for a mole trap.

Not knowing much about archery, I didn't realize what it had to offer in the way of plinking. Armed with a half dozen blunts, you can walk down the shoulder of any old highway or country road and bang away at old cans and bottles. Try that with a pistol or rifle nowadays and you'll end up in jail.

The first year I tried for deer with the archery equipment, the hunts had everything that hunts should have with the exception of meat on the table. So I decided to wait until I had developed into a little better Robin Hood. As you can guess, the first morning out with a scoped rifle, I got a broad-side, standing shot at twenty yards. The old deepfreeze was filled for another season, but not with arrow meat.

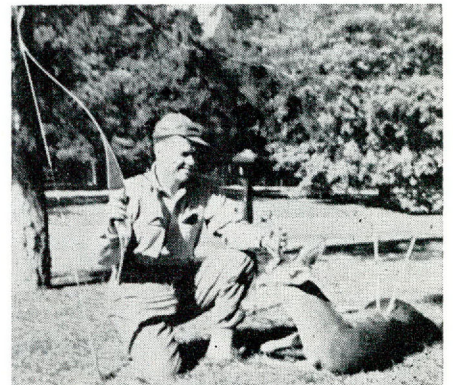
After all this background chatter,

perhaps it's time for the story of the scrawny rack.

This year for one of my stands I selected a pin-oak flat fairly close to an inhabited area and one I could not easily hunt with a rifle. I built a stand by wedging a piece of old form lumber about fifteen feet up between two small oak trees. Two runs came together within 20 feet of the tree. I had seen deer in this area before, so I knew it would be an ideal spot.

Hunting this stand on the first day of the season almost proved this to be a bad assumption. And if there hadn't been a noise in the brush which I couldn't identify, I probably wouldn't have returned the second day. However, the first day I did take a few practice shots at stumps and brush piles from the stand. The second day as I was on my way to the stand, a wise guy checking on my equipment drew and released my bow without an arrow and that string I had used all summer went "caplunk." This caused a minor delay. But now as I think back, I owe that old boy a vote of

• Continued on Page 29



L. E. Fraser exhibits his buck stopped in full gallop by an arrow.



Raise Your  
Fish  
Bait  
in your own  
Back  
Yard

Few fishermen who have ever used natural baits such as crickets, grasshoppers, worms and minnows, will argue against them. We had in mind to do an article on raising some of these fish baits right at home. However, *Florida Wildlife* had such a fine article on this subject that we decided to reprint it with the permission of Bill Hansen, editor of the magazine. Although the piece was written for Florida, it will fit Texas. Hope you can profit by it.—Editor.

Reprinted from *Florida Wildlife*

by ED ZAGAR

#### What Are The Most Popular Live Baits?

Minnows, worms and crickets are the most popular baits used by Florida fresh-water fishermen. Others are the catalpa worm and many live insects and larvae.

#### Can They Be Produced In The Backyard?

Yes. This series will give directions for raising minnows, worms, and crickets on a small scale in your own backyard. The information given here does not apply for commercial production of live baits. Be careful of the use of insecticides anywhere near your bait-raising site.

#### Which Minnow Is Best?

Of all the various minnows, the golden shiner is most suitable for home propagation.

#### What Type Of Pond?

Any natural or artificial body of water will do. Size range should be from  $\frac{1}{4}$  of an acre up to one acre. A constructed pond should have a maximum depth of six feet.

#### What Is The First Step?

If the pond is new and clear of wild fish, it should be fertilized and stocked. The old, established pond should be poisoned in January to eliminate all species of fish. Your Regional Fisheries Biologist of the Game and Fresh Water Fish Commission will help you with this.

#### How Many Minnows Are Stocked And When?

Stock the pond at the rate of 1,000 fish per acre. If the pond has been poisoned, this should be done two weeks afterwards—about February 1. Try to obtain disease-free fish from a reliable bait dealer, or obtain shiners from nearby natural waters. Use adult minnows four to six inches in length.

#### Do Shiners Need To Be Fed?

Yes. Fed and fertilized to obtain maximum growth. Fertilized once a month, using 200 lbs., 8-8-4, to the surface acre of water. Feed soybean cake or meal, cottonseed cake or meal, or chicken laying mash at the rate of 10 lbs., per acre per day. Never feed more than the fish will eat at any one time during the day.



### How Do You "Fertilize" A Pond?

By broadcasting the material over the surface of the water from all areas of the bank. It is important to get good coverage. In large ponds, it may be necessary to distribute the fertilizer from a boat, using an outboard motor to stir the mixture into the water.

### When Can The First Shiners Be Removed?

Shiners may be taken from the pond the first winter following the initial stocking. This is usually done with a lift net. These are square nylon nets set under the surface of the water. Shiners are baited over the net by feeding, and then all sides are quickly lifted by means of ropes attached to pulleys and posts.

### How Long Can You Continue To Take Shiners From A Pond?

In some cases, it may be necessary to renovate a pond every year, but, in the majority of ponds, shiners can be sorted and removed continuously for several years as they mature and reproduce. Thinning of smaller fish is necessary for raising large shiners.

### What Kinds Of Crickets Can Be Produced?

Two species of crickets may be raised. One is the common black field cricket, and the other is the Australian Grey Cricket. The black variety may be obtained anywhere outdoors in Florida, while the Grey is sold only through commercial dealers.

### What Is The First Step In Cricket Production?

Obtain a container with a depth of 18 to 24 inches. This is the brood pen. Used "coffin-shaped" shipping crates make excellent brooder houses. Fill with about 5 inches of clean sand and moisten. Five or six inches of wood excelsior is placed on top of the moist sand to provide cover for the young crickets.

### How Many Crickets Are Stocked In Each Pen?

Stock with 24 adult crickets (half females and half males) for each container up to two feet in diameter or length. Mature crickets have well developed wings, in contrast to wingless juveniles. Females may be distinguished from the males by the presence of a long tube through which eggs are deposited extending from the posterior end.

### Is Temperature A Factor In Cricket Production?

Yes. Crickets grow rapidly in a temperature between



The golden shiner is best suited for home propagation.

80° and 90° F. In cool weather, this condition can be maintained with an electric light bulb and thermometer. Little growth occurs above 95° F. Containers will have to be covered to retain heat and prevent crickets from escaping. If no heat is needed, screen wire should be utilized over the top.

### How Fast Do Crickets Grow?

Eggs hatch in about 20 days after being laid, and crickets reach maturity in two months.

### What Food And Water?

Food is provided in the form of chicken laying mash. This is placed in a saucer with excelsior strewn around it, so that baby crickets may readily reach it. Water is provided by using a glass drinking fountain similar to those used for watering chickens. Cotton is packed in the metal receptacle, and crickets will obtain water by crawling up on the cotton.

### Won't Crickets Jump Out?

It is advisable to keep the pen covered and to wax





the top ten inches of the inside walls of the pen to prevent crickets from escaping.

### Is Predation And Disease A Problem?

Yes. Ants are natural enemies of young crickets. If the pen has legs, these should be placed in cans of oil or water to prevent ants from gaining access. Disease can best be controlled by using good hygiene practices. After a crop of crickets has been produced, it is best to clean the container and start over again using fresh sand and excelsior.

### What Worm Should Be Raised In Florida?

The most popular worm for Florida is the African Giant, a variety of earthworm. Brood stock may be obtained from any commercial worm dealer.

### Can Other Worms Be Used?

Other types of earthworms may be used in backyard bait raising. Some fishermen have been known to plant catalpa trees in the hopes that the tree will become naturally infested with catalpa worms (often pronounced "Catawba" or "Catalba" worms), which are the caterpillars of the Catalpa Spinx moth.

### What Are The Earthworm's Requirements?

Suitable soil, abundant food supply, moisture, and temperature control.

### What Type Of Soil Is Best?

A combination of  $\frac{1}{3}$  peat,  $\frac{1}{3}$  black loam and  $\frac{1}{3}$  manure. Sandy soil should be avoided because this has a tendency to injure the intestinal tract of earthworms. Manure can be of any domestic type, such as cattle manure.

### What Food?

Earthworms thrive best on a high fat-protein diet, supplied by such foods as vegetable oil or lard mixed with corn, soybean, or cottonseed meal.

### How Much And How Often Do You Feed Worms?

For each bed 6'x3'x3', apply 1½ lbs. of shortening or lard mixed with 3 lbs. of meal every two weeks. Used kitchen fats are a good source of shortening and lard. Mix the feed into the top 12 inches of soil in the bed.

### What About Water?

Moisture is added in the form of water as often as the worms are fed. If the bed is too dry, worms will be found at the bottom. If too wet, near the top. Adjust water supply so that worms are found throughout the top six or eight inches of soil.

### How Is Temperature Controlled?

This is difficult to do in a permanent outdoor bed. If worms are in some sort of portable containers, these can be moved into the garage on extremely cold nights when freezing temperatures are expected.

### How Is A Worm Bed Constructed?

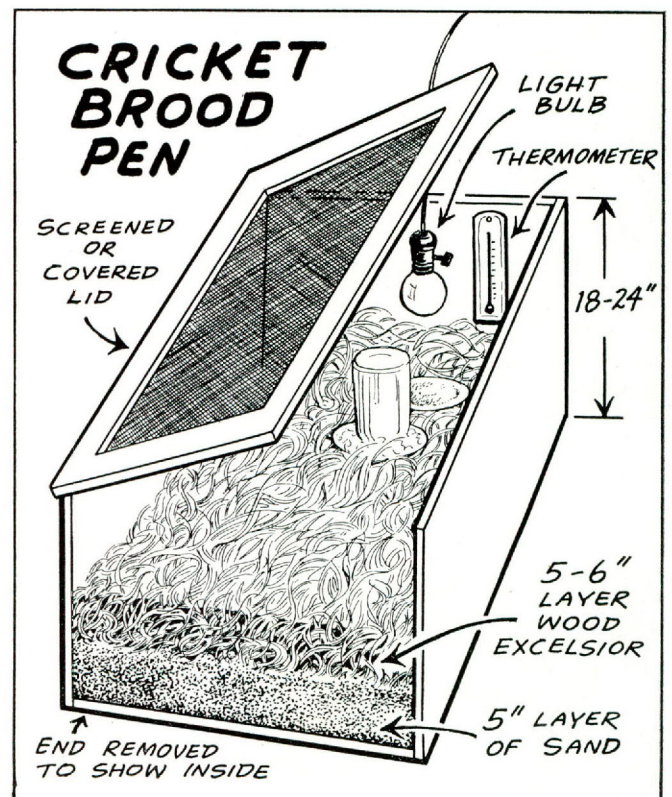
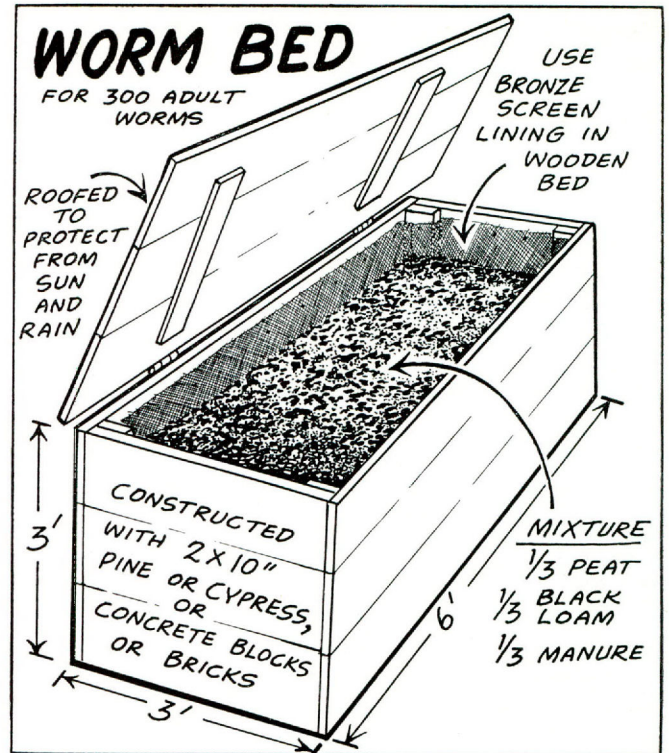
Use 2 x 10-inch pine or cypress boards nailed together in the form of a rectangle, or concrete blocks or bricks. Any length is satisfactory.

### Where Is The Best Location For A Worm Bed?

Any heavily shaded area is suitable. A roof may be provided over the bed for protection from sunlight and heavy rains.

### How Many Worms Are Stocked In Each Bed?

Stock the bed with 300 adult worms, and cover with



Spanish moss or burlap bags to prevent loss of moisture by evaporation and to provide protection from the sun. Considerable thinning of young worms is necessary to produce large individuals.

### How Long Does It Take To Produce A Crop Of Worms?

Within six months after stocking, worms can be removed from the beds.

\*\*



# Missing Markers

Photos by LEROY WILLIAMSON

**WHO GOT** the markers? This is the big question in Galveston Bay. In cooperation with the Game and Fish Commission, the shell dredging industry rebuilt a number of shell beds or pads in waters of the bay.

The dredgers had removed reefs in their ordinary operation. Many of them were replaced both by the Commission and the dredgers as a conservation measure.

The replaced reefs were stocked with live oysters. They became new fishing grounds.

To mark the areas for the benefit of fishermen, the Commission biologists placed a number of buoy markers on the known reefs. They attracted many fishermen in small boats.

The markers were made by using square blocks of flotation material. They were attached to long bamboo poles with heavy weights to hold

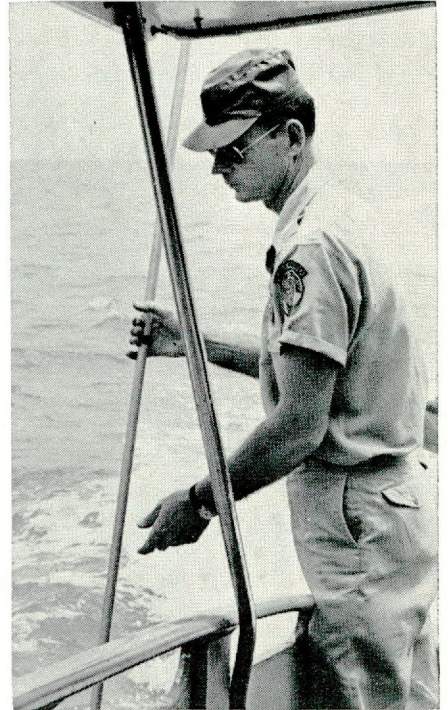
them in place.

But they didn't stay long because of vandalism. In less than a month every one was removed or destroyed. By whom? Some fishermen blame boat owners equipped with electronic devices for finding the reefs without the markers.

Now sports fishermen are looking for the vandals. They can be prosecuted for destroying the markers.



Game Warden Ray S. Hanson loads several markers on board.



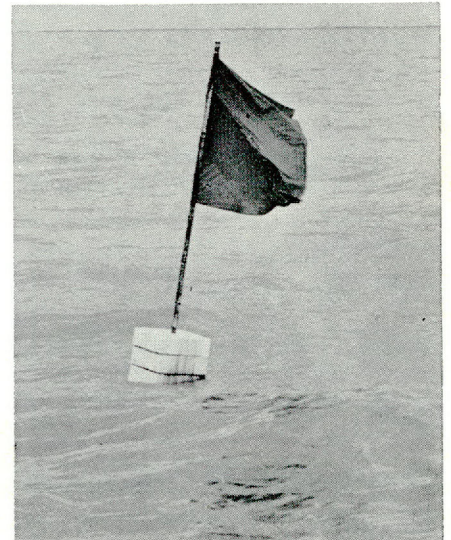
Hanson tests the depth for anchor line.



Concrete blocks are used for anchors.



The block goes first, then marker.



The flag was there and then it wasn't.



# Rigging for Giggering

by CURTIS CARPENTER

**J**IMMY LEANED FORWARD until he almost lost his balance. The headlamp he wore sent a circle of light to the edge of the tank where a giant bullfrog sat motionless. When the jaws of the frog catcher were only inches away from the unsuspecting frog, Jimmy jabbed it at him. There was a quick snap. Then my friend exhaled and lifted the long cane pole up for me to see his scurrying catch gripped securely in the jaws at the lower end.

Down the way a dozen more monster frogs were serenading. This was frog hunting at its best. We had arrived at the big farm tank about 8 p.m. Deep bass groans, roooooomp, roooooomp, echoing across the water told us the big bulls were there in force. A quick flash of our portable spot light picked up many pairs of eyes dotting the lake's edge. "It's going to be a good night for frogging," whispered Dan, the third member of our frogging party.

Hunting frogs can be a very exciting and productive sport. There's not much to it if you have the right equipment and a good frog pond.

First, you need a pond or tank where plenty of big bullfrogs are known to be. Most farmers and other land owners will let you hunt frogs on their tanks if you get permission from them first.

Once you have permission to hunt on a good frog pond, you will need a gig or gripper for catching them. The best type of device to get has two snapping jaws triggered somewhat like a mouse trap. They sell in most stores at a price under \$4 and seldom lose a frog once it is caught in the jaws. This "tong" can be fastened on the end of a cane pole. Use cane. It's light and strong. A piece about 10 feet long will do. There may be times when you will wish you had a longer one, but generally, a 10-foot length is sufficient.

To operate the catchers you simply pull back the jaws (at the same time) until they catch. Hold them on the outside in case your fingers slip. Don't touch the trigger. Be sure to keep the jaws well above everyone, and yourself, except when you are actually hunting. They can inflict serious injury.

You also will need a good headlight so you can spot frogs easily and still have two free hands to control and guide the cane pole. It is best to have another light along in case the head lamp gives you trouble. If there's a second party along, he can use it to shine on the ground ahead for snakes. Around most ponds where

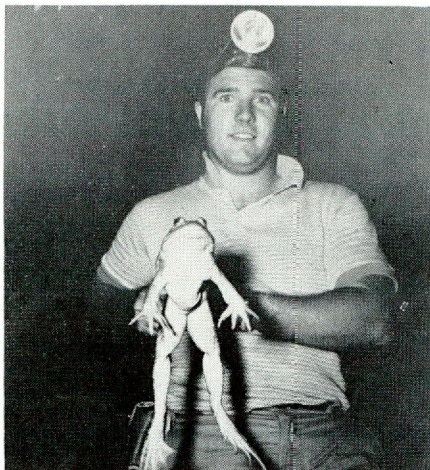
there are frogs, there'll be plenty of snakes, especially cottonmouths.

You should have at least one snake-bite kit along and a good knife. It's not a bad idea to keep some insect repellent handy. If you go properly prepared, you will be able to relax and enjoy the hunt much more.

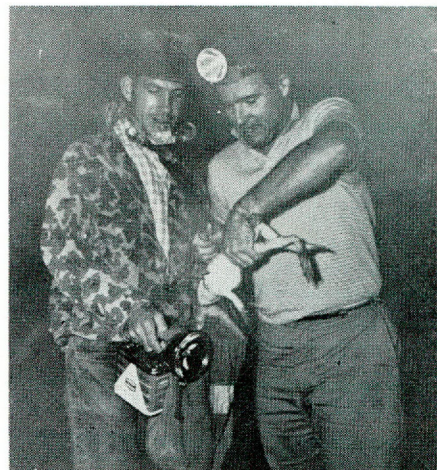
To carry the giant frogs you will need a sack with a draw string to fasten to your belt. If a friend is along, a potato sack will do as long as the open end is kept closed tightly with a piece of cord. Bull frogs can jump a city block so never leave the sack open. If you ever drop one don't waste your time trying to catch him. He'll jump your head off. Be-



He jumped, but too late to escape the snapping jaws of the gig.



Big enough to ride, just right for the table.



Don't get over anxious and catch a friend.



sides that, you could step on a snake while you are chasing him through the weeds.

If you have snake and water proof boots wear them. You'll find relaxing a lot easier if you do. A pair of rubber boots is ideal for creeping out in the mud after a big pair of eyes reflecting in your light. You will just have to keep a sharp eye out for snakes.

Wear some protective clothing; anything that will keep out thorns, chiggers, and mosquitos. If you have snake proof trousers, slip them on. A long-sleeved shirt is always best.

Now, you are ready to hit the frog pond. A bright spotlight seems to hypnotize a frog. So, when you near the pond and spot a big croaker squatting in the mud, get that spot on him and keep it there. Flip off all other lights at this time. Shadows will often spook a frog. If the frog has been hunted many times, or only the night before, you will find him very sensitive. So walk lightly and get that catcher around his carcass as quickly as possible.

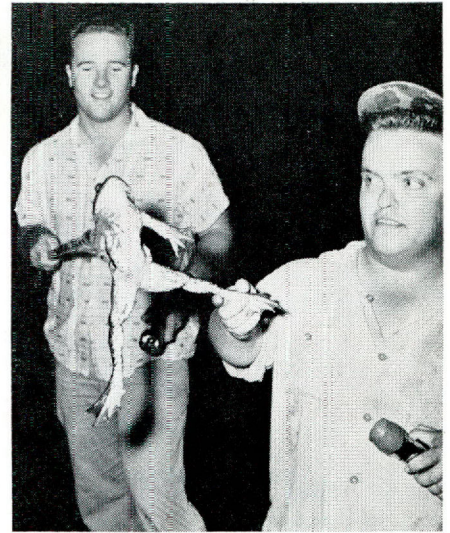
Aim the trigger on the catcher at a spot between the front and hind legs. Try not to catch a frog on the legs. Of course if a frog is facing you, aim at its nose or throat. The jaws will clamp around so quickly you will hardly realize what has happened. If all you can see is a head, aim at the back of it. By using this catcher instead of the old fashioned gigs, you can keep your frogs alive overnight and clean them the following morning.

Don't shine the light too far ahead at a time. Walk slowly and look all about the bank or shore. You will miss them if you fail to search behind every bush and reed clump in your path. Many times they will move some distance out of the water. This you will discover after a few misses. It's a little frightening to have one of the big boys grunt about the same time he leaps across your path without warning.

It doesn't take many mammoth frogs to make a meal for the average family. Full grown bull frogs have been recorded at better than 3 pounds. One that weighed  $3\frac{3}{4}$  pounds had more than a half pound of crayfish in its stomach. The aver-



A steady light and quick job are musts.



Headlamps are best but flashlights will work.

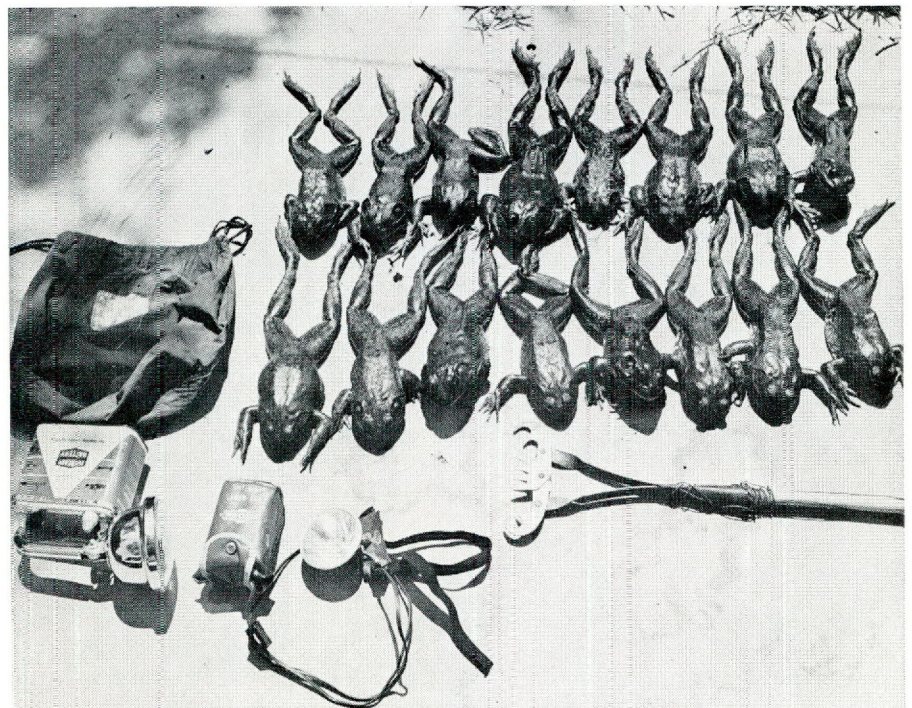
age will be closer to the two pound mark. Regardless of what you have heard, the front legs and body should never be thrown away. Toss them right in with the hind legs. More on how to clean and prepare them in another article in this issue.

Early April isn't the best time to hunt frogs, because they are preparing to lay eggs. Give them a chance to carry out their maternal responsibilities before hunting them. It depends a lot on the weather but generally, this takes place in April and May in Texas. However, the farther north the later the spawning

period.

It's time right now to get out the lights and head for your favorite frog pond. When you hear the deep, bass croak of the bulls, you'll nearly stumble over yourself trying to sack a few. Don't blush if you feel goose bumps. Nearly every frog hunter has trouble with them.

When we finished hunting that night we had 15 nice bullfrogs, enough for several meals. The very next day we had a big feast on fried frogs. The evening after the feast I called Jimmy—I was ready to go again. \*\*



Gig rigging includes sack with slip string, extra light, headlamp and jawed gig. Headlamps are best because they free both hands for working the gig.



# *New Game and Fish Laws*

by L. A. WILKE

**T**HERE WILL BE 65 new laws on the statute books, plus regulatory authority in 16 additional counties, affecting hunting and fishing in Texas this year. In all, 108 bills were introduced, with only 65 being passed into law.

The addition of 16 new counties to regulatory authority under the Game & Fish Commission now brings the total to 120 in the state. One county, Washington, withdrew from the regulatory controls, while Precinct 4, in Tyler county, which had been left out of the original bill, was included.

The commission also was given regulatory authority over a portion of Matagorda Island and on Lake Texoma in Grayson and Cooke counties.

These measures were passed by the regular session of the 57th Legislature, which adjourned May 29. It is possible some additional legislation may be passed at the called session in July.

There were six general laws affecting hunting. Perhaps the most significant of these was HB 846, which provides for trapping and transporting wild white-tailed deer from overpopulated areas to certain underpopulated areas. This bill was supported by SCOT under its program of developing a shooting area in Webb county where the public can hunt at a nominal fee. It can be applied to other areas, however, meeting requirements.

SB 431 prohibits the possession of Coypu (nutria) without a permit from the Game & Fish Commission. This bill is intended to curtail the spread of nutria in the state.

HB 445 provides an amendment to the present deer tagging law which requires that deer tags bear date and place of kill, and which must be attached to the deer in possession.

HB 733 amends Art 901 VTPC so as to permit certain incapacitated

persons to hunt from vehicles upon certain conditions. It does not include shooting from public roads.

HB 748 includes the little Brown Crane in the category of migratory game birds, which will permit the hunting of these birds in Texas when provided under federal regulation. Last year it was legal under federal laws to hunt these birds in certain West Texas areas. However, the hunting was prohibited under existing state laws.

HB 791 provides for cooperation between the State and Federal agencies in the destruction of predatory animals.

Other bills include:

SB 6 Closing wild turkey hunting season in Guadalupe County until November 16, 1965.

SB 243 Extends authority of Game and Fish Commission to regulate wildlife in Bexar County.

SB 407 Brings Cochran County within regulatory authority of Game and Fish Commission.

SB 442 Gives Game and Fish Commission regulatory authority over taking of antlerless deer in San Saba County.

SB 455 Amends Ch. 197, 55th Leg. to add Kellar Bay and Cox Bay to certain waters closed to netting.

HB 143 Amends Ch. 189, 56th Leg. exempting Freestone, Medina and Zavala Counties from open archery season.

HB 169 Provides regulatory authority for Dimmit, Uvalde and Zavala Counties.

HB 283 Provides regulatory authority for McCulloch County. Effective May 1, 1961.

HB 313 Amends Ch. 14, 55th Leg.

prohibiting use of dogs in taking deer in Brazoria, Matagorda, Fort Bend or Wharton Counties.

HB 364 Provides regulatory authority for Gillespie County. Effective May 1, 1961.

HB 387 Close deer season in Cooke and Grayson Counties.

HB 388 Amends Ch. 493, 52nd Leg. relating to deer season in Shelby, Rusk, Harrison and Gregg Counties.

HB 415 Regulating taking, transporting, and selling of minnows in Zavala County.

HB 424 Provides regulatory authority for Burnet County. Effective May 1, 1961.

HB 450 Making it unlawful for 5 years to hunt axis deer in Bexar and Kendall Counties.

HB 501 Authorizing Game and Fish Commission to regulate fishing in Lake Texoma located in Cooke and Grayson Counties.

HB 509 Amends Ch. 297, 52nd Leg. relating to fishing with nets and seines in Neches River where it borders on Houston County.

HB 546 Closing deer season in Chambers County for 4 years.

HB 547 Closing alligator season in Chambers County for 4 years.

HB 554 Providing regulatory authority for Borden County.

HB 558 Providing regulatory authority for Frio County.

HB 582 Amends Sec. 1, Ch. 267, 56th Leg. deer hunting in Hopkins, Delta and Franklin Counties.

HB 595 Relating to the hunting of doe deer and turkey in Throckmorton County.

HB 598 Quail law for San Patricio, Victoria and Refugio Counties.



HB 602 Wild turkey and deer law for Bastrop County.

HB 611 Quail law for Camp County.

HB 617 Dove law for McMullen County.

HB 632 Deer law for Morris and Camp Counties.

HB 633 Squirrel law for Morris and Camp Counties.

HB 637 Amends Ch. 134, 56th Leg. by removing Washington County from the regulatory authority of the Game and Fish Commission.

HB 640 Amends Ch. 45, 44th Leg. relating to the taking and transportation of minnows in Ellis County.

HB 678 Fish law for Laguna Madre within the Counties of Cameron, Kenedy and Willacy.

HB 687 Gives Game and Fish Commission regulatory authority over wildlife resources in Walker County.

HB 739 Placing wildlife resources of Burleson County under regulatory authority of the Game and Fish Commission.

HB 762 Amends Ch. 156, 56th Leg. relating to the regulatory authority of the Game and Fish Commission in Comal County.

HB 796 Placing wildlife resources of Mitchell County under regulatory authority of Game and Fish Commission.

HB 802 Makes it unlawful to hunt deer in Howard County until the general open season in 1965.

HB 815 Amends Art. 941b, Penal Code, relating to taking of minnows and rough fish.

HB 817 Closes wild turkey season in Caldwell County until November 16, 1964.

HB 819 Placing wildlife resources of Harrison County under Game and Fish Commission.

HB 847 Closing wild turkey hunting season in Colorado County until November 16, 1965.

HB 913 Amends Secs. 6 and 9 of Ch. 50, 55th Leg. relating to the regulatory authority of the Game and Fish Commission in Mason County.

HB 938 Provides regulatory authority of the Game and Fish Commission in Precinct 4 of Tyler County.

HB 979 Places wildlife resources of Trinity County under regulatory authority of the Game and Fish Commission.

HB 980 Relates to taking, possessing, and transporting of minnows taken from waters of Trinity and Polk Counties.

HB 981 Making commercial fishing legal in Angelina, Nacogdoches and San Augustine Counties.

HB 1043 Turkey and squirrel law for Lamar County.

HB 1045 Places wildlife resources of certain portions of Matagorda Island under regulatory authority of Game and Fish Commission.

HB 1078 Amends Ch. 50, 55th Leg. relating to regulatory authority

of the Game and Fish Commission in Kerr County.

HB 1081 Regulating hunting of wild turkey gobblers in Austin County.

HB 1083 Granting the Game and Fish Commission regulatory authority over the wildlife resources of Kendall County.

HB 1084 Deer, turkey and javelina law for Justice Precinct No. 1 in Kenedy County.

HB 1089 Provides open season for hunting quail in Jim Hogg County.

HB 1092 Places wildlife resources of Webb County under regulatory authority of the Game and Fish Commission. Effective Sept. 1, 1961.

HB 1096 Relating to open season for squirrels in Upshur and Wood Counties.

HB 1097 Relating to open season for deer in Upshur and Wood Counties.

HB 1108 Granting to Texas Game and Fish Commission regulatory authority over wildlife resources in Menard County. \*\*



When Senator Ray Roberts of McKinney served as Governor for a Day, one of his first official acts was to sign a bill giving the GFC regulatory authority over Lake Texoma in Cooke and Grayson counties. Standing by is Rep. Tony Koriath of Sherman, who sponsored the measure.



# Reservoirs - Troubled Waters

by JOHN GARY WOOD  
Aquatic Biologist

**T**HE MASS CONSTRUCTION of hydro-electric and flood control game in the United States has resulted in well over 10 million surface acres of new man-made lakes in the last 30 years. These lakes have become increasingly important as freshwater fishing areas. According to some recent estimates, about one-third of all inland lake fishing waters (exclusive of the Great Lakes) is now in the form of various man-made impoundments. Some \$320 million was spent on 80 million fishing trips to artificial reservoirs during 1959, according to the Sport Fishing Institute.

Even more important, Texas was one of three states that had nearly 40 per cent of this fishing. Texas has well over a half million acres of reservoirs open to public fishing. The Texas Game and Fish Commission has estimated that at least 75 per cent of all freshwater fishing in Texas

takes place on these impoundments.

The importance of these lakes is evident in light of the above facts. The U. S. Fish and Wildlife Service estimates that by 1980, there will be some 47 million fishermen as compared with 27 million in 1960. Where will these potential anglers find fish for their creels? The Fish and Wildlife Service has several answers to that important question. First on the list is the continued construction, expanded use, and improved management of artificial impoundments.

Fisheries biologists are more vitally concerned with improved management. Biologists, in attempting to manage our aquatic resources for a maximum of game fish, are beset by numerous problems. These problems present themselves most often in reservoirs.

For one thing, many of our reservoirs are giants and management techniques used on smaller lakes or

ponds often are too expensive to be applied to large bodies of water. Many theories proved on natural lakes do not apply to artificial lakes. Another factor delaying the development of techniques for reservoir management is the necessity for professional workers to concentrate on survey work. Until about five years ago, Texas biologists worked primarily on an inventory of the waters in the State. First, they needed to know the aquatic resources available and the major problems influencing these resources.

Today fisheries researchers are attacking the problems of reservoir management on many sides. Considerable progress has resulted, but the basic problems still exist. Rough fish head the list. So far, only the surface has been scratched. The selective control of gizzard shad with rotenone is one example of success. The over-all complexity however, is





more apparent when we call some 25 species of fish in Texas undesirable for one reason or another. Their basic life histories (including food habits, reproduction requirements, growth rates, life span, and many other facts) must be known, along with those of game species, before we can work out practical methods for maintaining a healthy balance of fish in our new lakes. Such life history studies have been initiated by the Commission.

A look at lake survey data may point out some reason why the rough fish situation is considered critical. For one thing, it is obvious that they eat a large portion of the basic food supply in a lake. A lake with no rough fish would produce many more pounds of game fish than one with numerous rough fish. In terms of numbers and pounds of fish produced, the less desirable species, such as carp, buffalo, and gar, may make up as much as 90 or more fish per 100 with a similar ratio in poundage. From the fisherman's viewpoint, this means that only one of every 10 fish, perhaps fewer, are candidates for his creel. The fact that many non-game fish are on the bass and catfish menus partially justifies their presence. But in some instances where largemouth bass represented the only species of fish present in a lake, they were able to sustain themselves on their own kind and produce outstanding fishing.

Regardless of this examination of

the available data indicates that the majority of rough fish (those making up the bulk of the weight) furnish little or no food supply to the game species. In Inks Lake in Central Texas, according to a 1960 survey, about 35 or every 100 pounds of fish in the lake were carpsuckers. A more useless fish is hard to find. This fellow will not take a hook under any circumstances. He is not a desirable food fish and a commercial market for them is non-existent. While large catfish may utilize a few carpsuckers as food it is not a preferred forage species. More significant, the carpsucker soon grows far too big for any fish to eat.

An adult carpsucker is a bottom scavenger. It goes around straining basic nutrient material from the mud and silt. If all carpsuckers were suddenly removed from any major impoundment, the game fish populations would increase rapidly.

This may explain the well-known, but little understood, phenomena of "great fishing" during the early years of a reservoir followed by a sharp decline until fishing success finally reaches a low, static level. This initial fishing spurt is a result of a rapidly expanding fish population. This is probably due to the presence of decaying vegetation and relatively unleached soil in the flooded area. After a while, the fish population reaches a maximum level. Since fish continue to reproduce even after this limit is reached, a lake ends up with still more fish in smaller sizes. For example, after a lake has all the fish it can hold it becomes a matter of competition for "room" to exist. The species which are better adapted to the particular environment will then tend to "crowd out" species that are less hardy. Thus, carpsuckers exclude gradually any species which is less adapted to survival. This happens because in a reservoir a few years old there is a drop in water fertility due to the exhaustion of the nutrient materials present in the basin when it was first impounded.

In Lake Inks smallmouth buffalo and carp (caught to a limited extent by fishermen), gar and shad make up another estimated 45 per 100 pounds of fish present. That, added to the carpsucker poundage, represents

some 80 per cent of the weight of rough fish in the lake. While sampling techniques leave room for error in these estimates, it is easy to imagine a greatly increased sport fishery if these species could be permanently removed.

Some progress has been made in this direction. Large numbers of shad can and have been removed selectively from impoundments by careful use of rotenone. Better fishing is an immediate result. However, in this case better fishing results chiefly because of the temporary removal of great quantities of small shad which results in heavy foraging by game species. Within a short time, the shad, able to reproduce at a tremendous rate, manage to re-establish themselves at near original numbers and fishing is once again at a slow pace. Shad control is a temporary measure used only when heavy fishing pressure combined with a lack of success demands immediate relief.

Rotenone will remove other rough fish when used in higher concentrations. However, to get an extensive kill of big rough fish it is necessary to use concentrations which are deadly to bass and crappie populations and literally wipe out all channel catfish present. Also, the gar and bullhead catfish are not affected unless enough chemical is used to completely eradicate other species. Even then, some undesirables escape and furnish brood stock and a guarantee of future trouble.

Obviously other means of controlling these hardier species are needed. Considerable research is being aimed toward this end. The major task is that of finding a means (chemical, mechanical or biological) of removing fish selectively.

Rough fish affect game fish other than through food competition such as predation on game species (generally over-rated), nest raiding and temporary destruction of suitable grounds by sucker-fish "rooting" through a nesting area.

As biologists continue to search for better ways to control rough fish populations millions of fishermen might do much to increase their fishing pleasure by learning to enjoy the popular "dough-bait" and "gar" fishing sport. \*\*





# Lake Texarkana

Photos by LEROY WILLIAMSON

ONE OF THE NEWER Texas lakes hitting its recreation stride this summer is Lake Texarkana, 9 miles southwest of the city of Texarkana, located on the Texas-Arkansas boundary line.

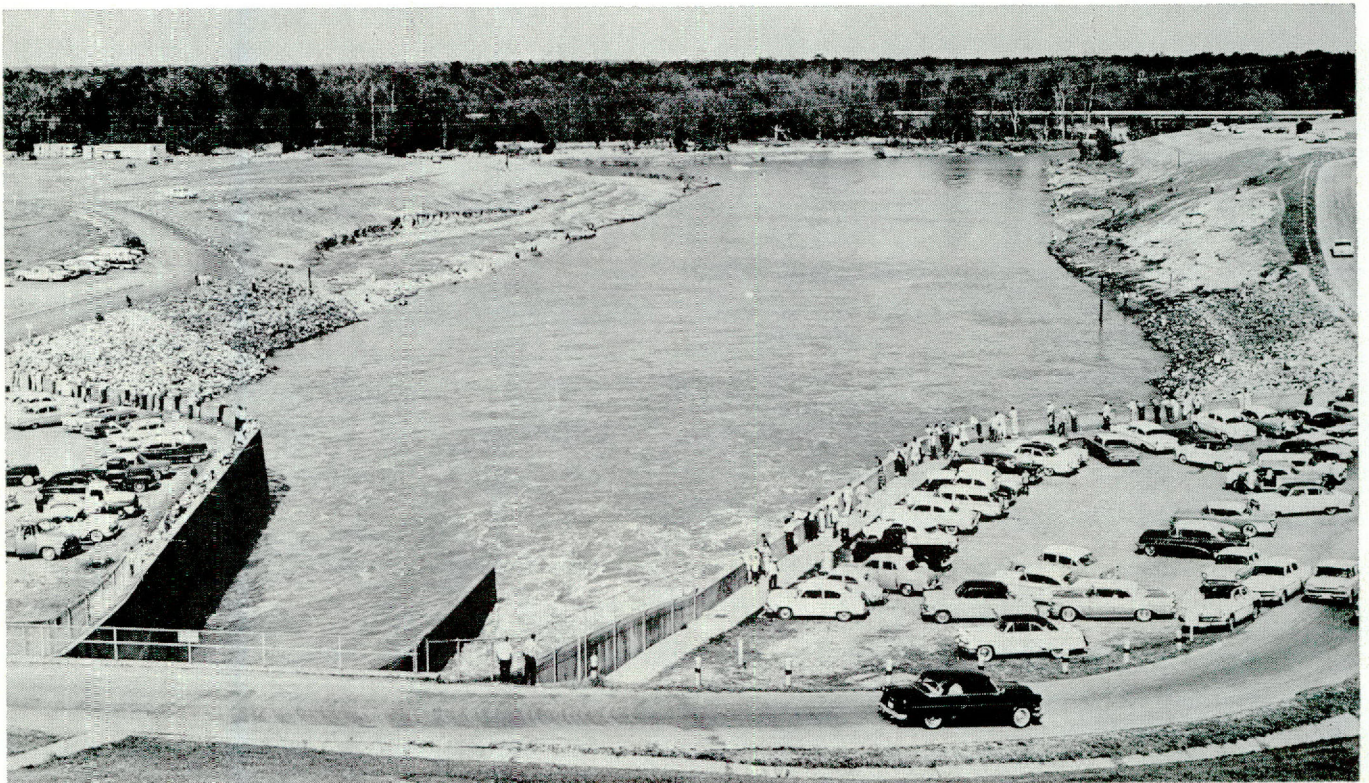
This is a Corps of Engineers lake, which lies in parts of Bowie, Cass, Morris, Red River and Titus counties. It covers slightly more than 20,000 surface acres with a shoreline of a little more than 100 miles.

Typical of its East Texas ecology it produces largemouth and Kentucky spotted bass, crappie, bream and catfish in abundance.

The lake was created by a dam across the Sulphur river. Below the dam hundreds of fishermen take their



This sign stands at the entrance to the lake.



Thousands of people gather each year just below the dam to fish.



limits in white bass almost every fishable day.

The lake is surrounded by a network of good highways. It can be reached over US Highways 59 and 67; State highways 8, 26 and 77.

Because of its proximity to good population areas there has been a great deal of development. Lake Kickapoo Lodge affords one of the most modern places to be found on any Texas lake.

The lake is surrounded by beautiful trees, pines and oaks in abundance. While government owned land around the lake has been licensed to the Game & Fish Commission for control, there are many worthwhile camping spots. The game commission now is developing a "green tree" waterfowl refuge on the lake, where waterfowl will be given full time protection.

While there are many plug fishermen on Lake Texarkana, like most East Texas lakes, there are many pole fishermen and trot liners.

Crickets and big garden worms are among the favorite natural baits. They produce tremendous catches of large bream and crappie.

Additional information on the lake can be had by writing the Texarkana Chamber of Commerce. \*\*



Modern boat stalls and fishing piers are available.



Boats can be launched all along the lake.



Kickapoo Lodge offers some of the most modern facilities found on any Texas lake.



# Readers

## WHAT MAKES A MAGAZINE?

All work in the field of conservation is based on practical science. For instance when a biologist needs to know the fish population of a given body of water he takes net samples and frequently a creel census. The wildlife biologist establishes transects and uses eye and ear counts to establish the amount of game. There is a never-ending study of conditions which affect the annual crop, and finally the worthwhile harvest.

As a part of this program The Texas

Game and Fish Magazine also must know what makes it tick. We get many favorable letters from subscribers. They are genuinely appreciated because they indicate the reader is fairly well pleased with what he is getting. In addition we check this publication against others in the conservation field. We study it in relationship to other publications with general circulation.

Now we have a readership poll, which will serve as a guide for future issues of the magazine. We shall attempt to make it even more readable and useful.—*Editor.*

# on the Rostrum

by CAROLYN SMYRL

**T**HE AVERAGE READER of *TEXAS GAME AND FISH* magazine will spend from one to two hours reading the issue you now hold in your hands, a five-month study of readership habit indicates. According to the survey, most readers will then put the issue on permanent file or give it to a friend.

These are only some of the conclusions arrived at from questionnaires sent to 1200 of the 35,000 subscribers. Two sets of questionnaires were mailed—the first set was a pilot group of 50, of which 30 were returned; the second group of 1150, drawn up after the experimental 50 were examined and rearranged, drew 476 returns. The following results are based on 450 of the 476 returned in time for IBM tabulation.

*TEXAS GAME AND FISH* proved the most popular magazine in a list of publications that included *FIELD AND STREAM*, *OUTDOOR LIFE*, *LIFE*, *SATURDAY EVENING POST*, *SPORTS AFIELD*, *TRUE*, *McCALL'S* and *HOLIDAY*. More than 160 subscribers learned of the magazine through friends, 93 from seeing a copy in an office or elsewhere, and 87 from the wildlife exhibit which visits Texas fairs and schools.

Most of the persons (144) returning the questionnaires have been subscribers for about a year or less, 137 from three to four years, 111 from five to nine years, and 51 for 10 years or more.

Outdoors topics that appealed the most were fishing, hunting, and conservation, in that order. Hunting was divided into "upland game" and "big game" categories, however, and the two totaled more interest votes than any other subject. Boating and wildlife photography were the next most popular topics. The least popular subjects were listed as archery, skin diving, water skiing, bird-watching, and hiking.

Of the readers answering the form, 212 said they put

the magazine on permanent file, 152 indicated they gave them to friends, 43 said they throw them away, and 33 said they donate them to hospitals, schools, etc.

Most readers (192) said they spend one hour reading the magazine, 137 said two hours, 41 said about 30 minutes or less, 40 said three hours or more.

Photographs proved the most popular cover design, winning 265 votes to 145 for paintings. Birds were the most popular cover subjects, receiving 242 votes; mammals were next with 241; then came fish with 229, and scenes with 177.

The majority of readers found the magazine easy to read and interesting, but many wanted articles that were more technical and detailed.

Asked "why the magazine is of value to me," 254 replied "for entertainment," 29 said it helps in business or profession, 337 rated it so for interesting information, and 287 for help in hunting and fishing.

Among the regular features of the magazine, "Guns and Shooting" drew 225 extreme interest votes; the editorial page, 189; "What Others Are Doing," 171; "Long Shots, Short Casts," 162; "Junior Sportsmen," 110; and "Outdoor Books," 107.

Perhaps the women readers of the magazine should stand up and be counted—only 29 females returned the forms; all others were returned by men!

Of the readers returning the questionnaires, 106 were 30 to 39 years of age; 98 from 50 to 59; 95 from 40 to 49; 77 were 60 and over; 40 were 18 to 29, and 31 were under 18. Educational ratings of readers were 195 of college level; 152 of high school level; 51 grade school level, and 44 technical or business school level. Most of the readers returning the forms were from cities numbering 250,000 and more in population. \*\*



# New Lake Near Lufkin

**L**AKE KURTH, five miles north of Lufkin, has been provided to the Game and Fish Commission for 10 years by the Southland Paper Mills, Inc. The 800-acre lake on the Angelina River will be protected as a duck refuge with no hunting permitted.

The dam and reservoir parallels the course of the Angelina River for a distance of two miles. Water is lifted by electric pump from the river into concrete canals which flow into the reservoir. The dam and storage reservoir was engineered by Brown & Root of Houston and cost over \$2 million.

This dam will separate waters of the reservoir and the McGee dam when it is completed. The reservoir now is fully completed and filled to capacity. It has been stocked with various species of fish from the Jasper hatchery. Regulated fishing is expected in the near future.

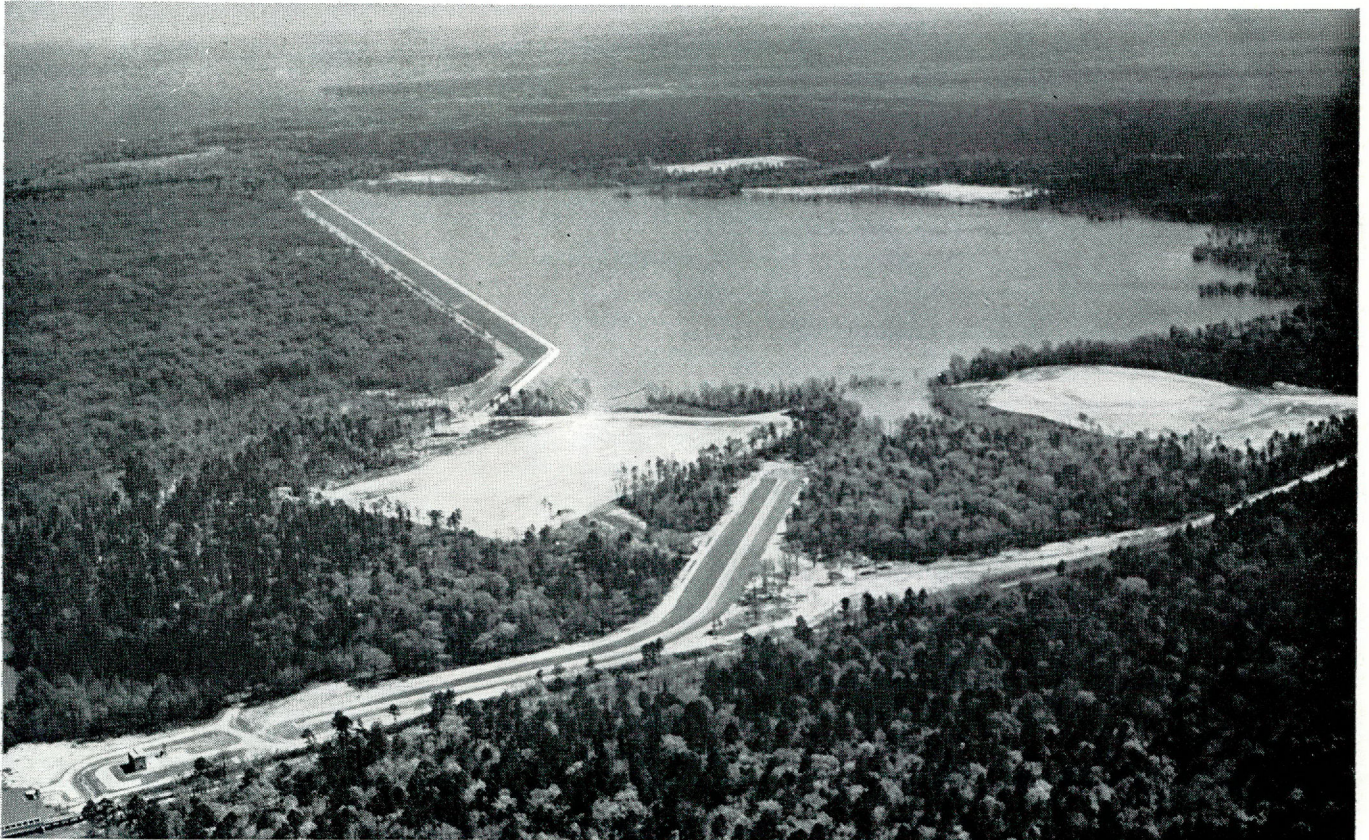
This impoundment covers the famous Mayberry duck roost. The lake at the deepest section is around 35 feet. The water when settled is very clear and beautiful, with a variety of native trees and shrubs around the shoreline.

There are pipelines to the Southland Paper Mills, only four miles

away, where large quantities of news print are made daily. Off the reservoir are large hardwood areas that furnish good feeding grounds for ducks and geese. The lake will provide a rest haven during flights to the coast.

There will be no hunting on the lake. With the probability of other refuges being established in East Texas from time to time, the migration of waterfowl will be materially increased in the area.

Negotiations for the project were carried on between Carl L. Dupuy, member of the Game & Fish Commission, and R. W. Wortham Jr. of the Southland Paper Mills. \*\*



800 acre lake—Open to Fishing, Closed to Duck Shooting.



# Cleaning and Cooking

## Bull Frogs

by CURTIS CARPENTER



One clean swipe will cut head to the bone. If you prefer, tap each frog on head before removing head. This sometimes causes blood clotting.



Lock fingers behind jaws and with a twist remove the head. If you have big knife and block, one chop will remove the head. After a couple you'll be an expert.

**M**OST OF THE FUN in preparing for a frog feast comes the night of the hunt. Few people enjoy cleaning frogs. However, the job isn't as messy as with most game, and it is rather simple once you catch on. After the first two or three frogs, you'll be an expert.

A dozen giant bullfrogs provide enough meat for a couple of meals for a family of five, if the back and front as well as the hind legs are tossed in the pot.

Some people think it more humanitarian to tap each frog on its head before cleaning. This often causes blood clotting. It is just as merciful to cut its head off with one slice.

Have two containers handy, one for the waste and one for the meat. It's up to each individual when it comes to washing the meat. Some say no, others say yes. Personally, I don't think anyone can skin and clean a frog without getting some of the slime and filth of its environment on the cleaned meat. I wash mine removing any blood and ligaments I see. It has never affected the taste to my knowledge.

There are several recipes for preparing frogs. I like to dip the meat in a small bowl containing 1½ cups of milk and one egg beaten together. Then toss it into a paper sack with two cups of flour and enough salt and pepper to flavor the meat. Shake the parts long enough to get coated with flour and toss into a deep fryer. Cook until golden brown, and serve with gravy and potatoes, a salad, and ice tea. \*\*



Grab skin on back with pliers, grip behind front legs with hand and pull. The skin will roll off frog with one long pull, then cut the body into pieces.



Cut through joint and off comes hind legs. Feet have been removed at first joint. Cut behind shield-like bones on front legs to remove, then split them down middle.



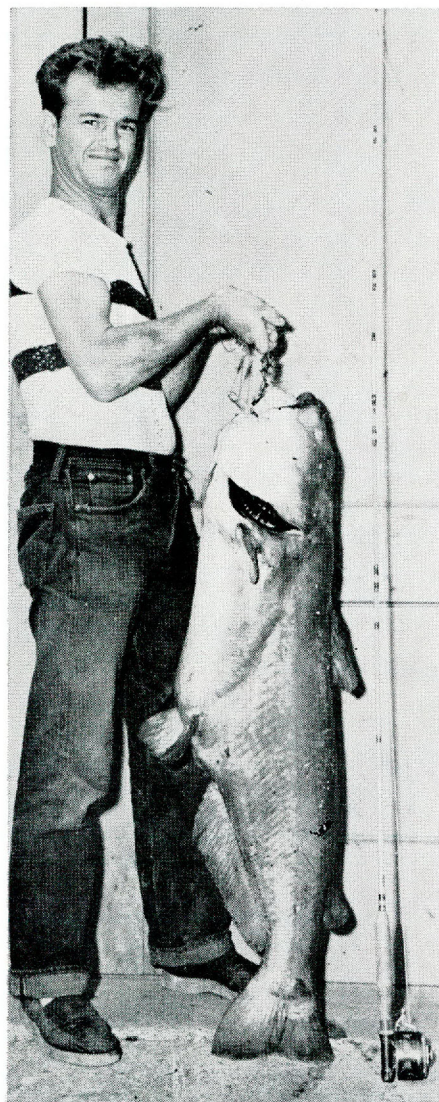
# Tailrace Smorgasbord

by JOHN CLIFT

Denison Herald



Anglers dot the rocky slopes below the Denison Dam that holds back giant Lake Texoma.



Jack Means of Denison holds up a 51-pound catfish taken on a fly rod, a world's record.

**T**HE WIND MAY BLOW anglers off Lake Texoma, or it may be so cold they can't stand it, or so hot that only skiers are visible, but you'll always find fishermen below Denison Dam which holds the sprawling Texas-Oklahoma border lake.

"I have seen fishermen out here when the snow was six inches deep and still falling so rapidly you couldn't see ten feet in front of you," reported Joe Wilson, concessions chief for the U.S. Engineer Corps, who has his offices in the powerhouse below the dam.

And, in all kinds of weather, fish are caught.

"This is the end of the road for fish coming up the Red River from the Mississippi and even the Gulf," said Vance Henderson, who operates the

damsite concession on the Oklahoma side of the river. "When we sent out a report earlier this year about a run on sauger, the salt water version of the pike, I got a request from the Dallas aquarium asking me to try and get them some live species for their use. Fortunately, I was able to do this."

Eddie Laird, former Texas game warden and later a park ranger for the Engineer Corps before he became a concessionaire at Texoma, has always figured the river was full of Kentucky spotted bass and real lunker blacks.

"However, because at least five days a week the river is about bank to bank as power is being generated, we've never been able to successfully

• Continued on Page 27



Sam Crittenden of Denison supports a 31-pound spoonbilled catfish caught below Denison Dam.



**A** LOCAL HOLIDAY originated years ago by a closed fishing season law at Lake Kemp is growing bigger annually for the little West Texas town of Seymour—residents call it “Fish Day” and use it as an official excuse to close up shop and go fishing.

Thousands of people some coming from as far away as California especially for the holiday, crowded the shores of Lake Kemp this year on the official May 1 Fish Day, went fishing, held fish fries, and participated in Seymour-sponsored contests. The Fish Day holiday always leaves Seymour deserted. Empty streets and closed shops give it a ghost town appearance to people traveling through. Only a few service stations and restaurants remain open. Several years ago the United States even recognized Seymour’s holiday and now federal government employees in the town close their shops and go fishing, too.

But, if Seymour is deserted, Lake Kemp is crowded. Thousands of people are counted as they enter the Seymour gate to take part in the Lake Kemp May 1 fishing observance.

At the lake, Seymour residents participate in scores of fish fries, various Fish Day contests and, sometimes, they even fish. Bad weather generally accompanies Fish Day, which cuts down on some of the fishing, but plenty of fish are always caught before the holiday to supply the many fish fries.

The advance fishing has not always



by JIM KOETHE, Wichita Falls Record News

been so at the lake. The Fish Day holiday actually originated because Seymour residents couldn’t go fishing.

It all got started in the 1920’s when the State of Texas had a closed season on fishing, which included the vast waters of Lake Kemp. In those days, Seymour residents claimed Lake Kemp was the largest man-made lake in the world.

In dry West Texas where water is usually hard to come by, residents have always naturally been proud of their lake and enjoyed the fishing that it offered.

This made the closed season, which lasted about three months, one of the worst hardships Seymour fishermen could suffer. Some fishermen, of course, didn’t recognize the closed season, but wary game wardens made closed season fishing an expensive sport.

The majority of the town observed the law and waited patiently for the day, May 1, when the closed season was lifted and everyone could go fishing. The day was spoken of in many different terms by waiting fishermen, who planned fishing trips



Kids line pier during fishing derby.



Game Warden Tate Pittman and five winners of the 1961 kiddie fishing derby.



for "May Day," "the first of May," and "Fish Day."

For three months each year the lake lay out of reach of fishermen, but on April 30 business always began picking up. Seymour residents would begin the trek to the lake on Fish Day Eve and many would begin fishing at the stroke of midnight.

Since all the customers went fishing on May 1, merchants started closing their shops and going fishing, too. They would join the early arrivals at Lake Kemp and everyone would spend the day fishing.

When the State did away with the closed season on fishing, habit and custom were already established in Seymour. Residents could go fishing all year, but when May 1 came, the old custom was followed. Whether they wanted to or not, the people were expected to go fishing.

Later the town began to organize contests, the mayor issued proclamations, and the town's unusual holiday became known throughout the nation.

At this year's Fish Day celebration, the town added its newest activity to honor the fish. Twelve young women from Seymour High School participated in the first Miss Fish Day beauty queen contest held at the Roy Taylor Camp at Lake Kemp.

Baylor County Attorney Clyde Whiteside, wearing a raincoat, served as master of ceremonies while the 12 shivering contestants walked along the lake shore before an audience of about 400 people. After the contest, George Bickly, president of the Seymour Chamber of Commerce, crowned Miss Carol Cockrell as the first Miss Fish Day.

Other annual events include a skiing contest, a kiddie fishing derby, and contests for the largest and most fish caught.

This year Game Warden Tate Pittman, in charge of the kiddie fishing derby, handed out cane poles and equipment to 350 youngsters who fished for one hour on the wind-whipped lake. No one caught a fish and the disappointed game warden explained to West Texas newsmen at the lake, "The wind was just too high and the weather too bad . . . please explain why no one caught a fish."

The year before, however, it was a happy Pittman who handed out prizes to five lucky young fishermen.

In recent years, all Seymour merchants have sported a common sign on their closed doors each May 1. The signs are printed by the chamber of commerce and all explain the reason for the holiday.

A large sign on the courthouse lawn also explains "Gone Fishing" to travelers and the mayor always issues a proclamation that reads:

"Whereas, since time immemorial, man, woman, boy and girl has pursued the ancient and time honored custom of trying to induce a wily and stubborn fish to bite a hook;

"And whereas, it is good for man to match his wits against said scaly friend; and good for man to load up his family in the family car and head for the balmy shores of Lake Kemp to try their luck at the manly art and sport of fishing and to bask in the warm sunshine;

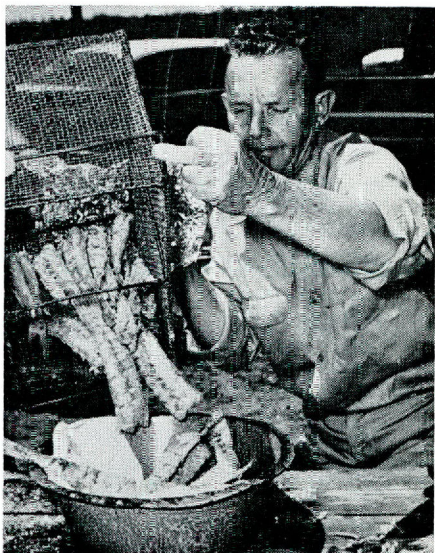
"And whereas, the good city of Seymour, Texas, has heretofore observed the first day of May as Fish Day;

"And therefore, I, the mayor of Seymour, Texas, do hereby proclaim and set aside May 1 as Fish Day; and I do hereby further proclaim that on said date, each and every citizen of Seymour shall lay aside his daily pursuits and gird and arm himself with a fishing pole, line, hooks and bait and make his way by the most expeditious means of transportation to the said shores of Lake Kemp and there test his skill, strength, wit and patience

against the said wily fish in the time honored fashion and manner." \*\*



George Bickly, Seymour C. C. president, crowns Carol Cockrell first Fish Day Queen on May 1.



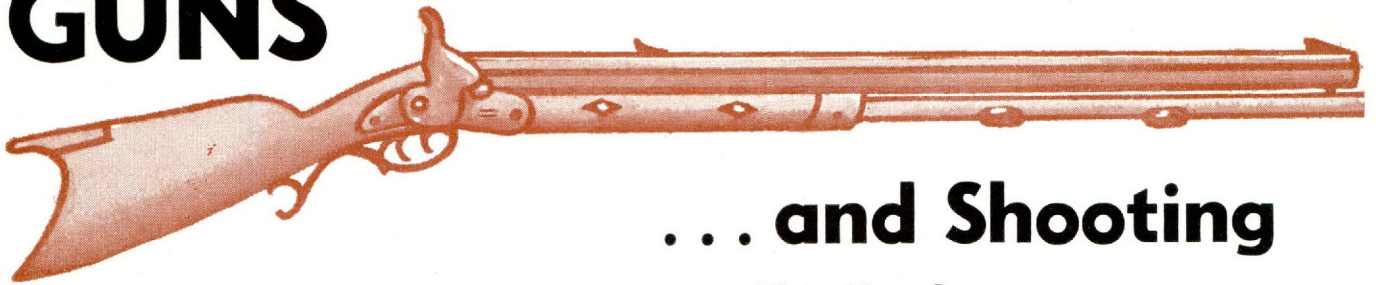
David Wirz, Seymour farmer, pours fried fish into pan at Lake Kemp Fish Day fish fry.



Ummmmm, what fish. Left to right are Mrs. David Wirz, Miss Janette Plants, Mrs. Roy Morris, David Wirz and Roy Morris, all of Seymour.



# GUNS



## ... and Shooting

by L. A. WILKE

**This Month:** GUNS OF '61

**I**N THIS fast changing world when new guns and calibers are being developed every month, it is well to remember that 100 years ago Texas was giving its utmost to the development of ordnance with which to equip the soldiers of '61.

Few people have seen the monument erected by the Texas Planning Commission under the guidance of the Texas historical society in Grimes county back in 1936.

Inscribed on the face of granite is the following:

Site

### A MUNITION FACTORY

of the Southern Confederacy, established in 1861, in operation until 1865. Cannon, cannon balls, guns, pistols, swords, sabers, bayonets and gunpowder were manufactured.

This was only a part of the war effort that worked in Texas. Other gun factories were set up at Tyler, Rusk and other East Texas counties.

In Tyler on August 1, 1861, J. C. Short advertised that he was still manufacturing his Kentucky rifles "warranted to kill an Abolitionist at 400 yards."

Columbia, in the Brazos river bottoms, also was the site of the first fac-

tory of the Dances, who made great contributions to the manufacture of weapons of the Confederacy. Today the few remaining revolvers they made are much in demand by collectors the world over.

Marshall, the war-time capital of Missouri, also was an armory of the Confederate States.

There was a state foundry at Austin, which produced copper caps. State armories were located at San Antonio, Marshall, Anderson and Austin. Pistols were being produced at Lancaster in Dallas county.

A plant at Burnet produced gun powder. Later a gun powder plant at Waxahachie exploded, killing some of its workmen.

Cannons and cannon balls were produced at plants in Houston and Port Lavaca.

In Austin several thousand old flintlocks were altered by the armory for percussion caps.

Today some of these items are still found in museums over the country. Collectors offer fabulous prices for our guns of 1861.

It must be remembered that the Colt revolver was first developed by a Texan long before the Civil War when Sam Walker, a Texas ranger, helped to work out the design of the new Colt.

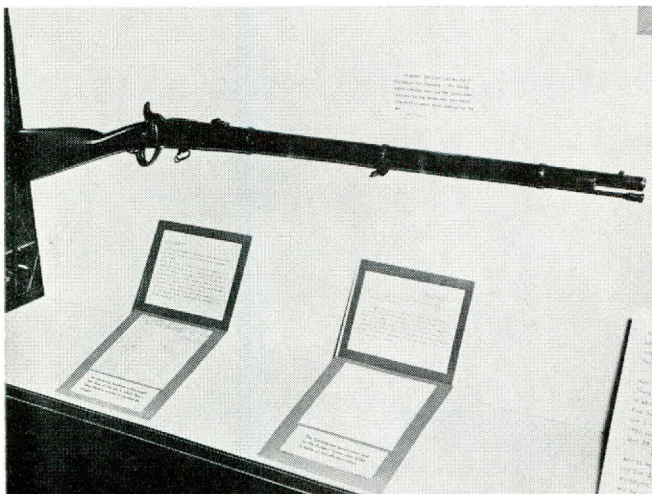
Today these Walker Colts are worth more than \$1,000 each to collectors.

Either originals or copies of most of these old "guns of '61" can be seen in museums throughout the state. Quite a number of them are in the hands of collectors throughout the United States. \*\*

State Monument marks site of munitions plant



Confederate gun in Memorial Museum in Austin





## This one place in Texas where the fish bite every day

Tailrace Smorgasbord

From Page 23

get float trips started," he said. But on weekends when the discharge is low, Laird has made trips down the river that have produced some real fishing in the deep pools dotting its meandering course.

The spoonbill catfish is another unique fish taken in large numbers at various times of the year. This spring there was a run on spoonbills, with the cats ranging in size from a pound to eight or ten. The record is a 31-pounder taken by Sam Crittenden, a Denison angler, a couple of years ago.

When the lake rises and water is discharged through the flood gates, the fish really get active. In one 12-hour period, John Smith of Denison once landed seven catfish that totaled 327 pounds.

Surf rods are used by most anglers, although you'll still see an assortment of tackle along the riprapped banks that line both shores. Even fly rods turn up. Believe it or not, Jack Means of Denison set a world's record when he successfully subdued a 51-pound catfish on a fly rod below the dam.

Anglers go in for wading, for using innertube rigs, or for crowding the

area that juts up against the powerhouse which is the real dead end for the fish. You can look down from the fishing pier at the top of this area and see the water below alive with fish.

Huge gar abound here, too, and at certain times of the year the Corps allows bow and arrow anglers to move in and help eradicate this rough fish.

Wading anglers seldom wear hip boots or chest-high waders during the spring, summer, and fall. They just don a pair of sneakers and put a stringer on their belt and wade out. As they catch drum, sandies, blacks or any other of the 71 species of fish that have been recorded in these waters, they put them on their stringers which trail behind them in the water keeping the fish alive until they are ready to call it a day.

With 71 species known to inhabit the waters, it is a real "fisherman's smorgasbord" when a lure is pitched into the river. Jigs and flies are popular baits.

When the flood gates open and the water is especially swift, anglers have

been known to leave two dozen lures firmly hooked to rocks in the river bottom in a single afternoon.

But the minute the flood gates are closed and the river subsides to a narrow channel, the bottom for 200 yards below the dam looks like a giant Christmas tree with lures of every description hanging on the rocks.

When this happens, fishing is forgotten and anglers rush to the area with minnow buckets to retrieve literally thousands of lures.

This is the one place on all of Lake Texoma where Texas and Oklahoma has set up a program of reciprocity on fishing licenses. As long as an angler has a license, be it Texas or Oklahoma, he can fish on either side of the river down to a marked area about 250 yards from the foot of the powerhouse.

Tons of fish are taken below the dam each week and there has never been any real letup of fishing.

"It's an inexhaustible supply of fish," said Laird softly. "And for that reason, this is one place in Texas where I'll guarantee you the fish bite every day." \*\*

## Shooting on or across a highway or public road is also illegal

Public Fishing Rights

From Page 5

The opinions of the Attorney General above listed, discuss the question of hunting as well as fishing on public water.

When a man is sure his fishing precinct is legally private under these rules of the court, his rights with respect to taking fish may not be legally interfered with. However, he is subject to the laws relating to sale, possession limits, size and so forth, and since the sale of game fish is prohibited by law, regardless of where they were produced, a person fishing a private lake is subject to such laws.

Certain public lands are regulated for the taking of

game and fish, such as "wild life management areas" controlled by the Commission. Game preserves, shooting resorts and state parks are also restricted. Shooting on or across a highway or public road is also illegal. The United States forests are made available under certain restrictions.

The access to a public stream or body of water may be made by entering such stream from public property, such as highway rights-of-way and public roads, and such entry will not constitute a trespass. Upon entering such public waters, as above stated, a person has the right to fish in such waters. \*\*

### RUBBER-BAND LINE KIT



Proven Fish - Catcher ----

Use as throw-line from the bank, set it, bait it and run it without a boat.

Will catch all fish ---- Use live or cut bait.

THE LEE COMPANY  
4306 Utah Ave.  
Dallas 16, Texas



Kit contains approximately 50 ft. 70 lb. test nylon line, 20 ft. rubber, 6 Snelled No. 2-O hooks.

### PLASTIC MINNOW SEINES

Will last for years—trouble free. Burs or trash do not cling to it. Pulls easy. You may seine Crawfish in weeds without harm to your seine. Available in 10, 15, or 20 foot lengths. All 4 feet depth. Postage paid \$1.30 per ft.

**KIMBLE SEINES**  
Box 362  
JUNCTION, TEXAS

One KIT....\$1.25 One pkg. (2 lines) of extra Rubber.....75 mailed prepaid



FOR SALE

# Game Bird Eggs

BOBWHITE QUAIL EGGS

12 Cents Each

CHINESE RING NECK PHEASANT EGGS

20 Cents Each

Minimum Order \$5.00

Postage Prepaid

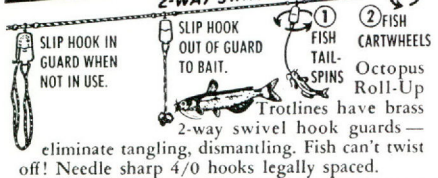
Please Mail Check With Order

## Keechi

### QUAIL & PHEASANT FARM

Route #2  
BUFFALO, TEXAS

## NOW SET OR TAKE UP TROTLINE IN 5 MINUTES!



FULLY ASSEMBLED — READY TO BAIT Cotton Seine Cord ALL NYLON  
155-LB. TEST 420-LB. TEST  
80 ft. TROTLINE on winder, 16 assemblies . . . \$3.95 \$5.75  
100 ft. TROTLINE on winder, 20 assemblies . . . 5.50 6.95  
150 ft. TROTLINE on winder, 24 assemblies . . . 6.95 8.95  
Extras if desired: Roll-up Reel \$1.00; Hook Guard \$1.20 doz.; Brass U-shaped Brad (2 for each guard) 15c doz. Trotlines guaranteed. Ppd.

FREE WITH ORDER: 22-page illustrated booklet tells how, when, where to set trotline, etc.  
NOTE: Mailed FREE at your request . . . this valuable Booklet and Full Information!

F. LAWRENZ MFG. CO. DEPT. C, 319 N. BISHOP AVE., DALLAS, TEX.

### PROTECT YOURSELF FROM POISONOUS SNAKE BITE!

Lightweight - Adjustable



Positive protection for work or recreation in the woods. Slips easily on or off. Made from top grade, light-weight aluminum. So light and comfortable you hardly know you have them on.

ONE SIZE FITS ALL **\$15.00** PAIR 4 PAIR OR MORE \$14.00 EACH

Please send me \_\_\_\_\_ pairs ALUMINUM LEGGINGS at \$15 a pair. (4 pair or more \$14 each). Postage paid if accompanied by check or money order. Sorry, no C.O.D.'s.  
Check Enclosed \_\_\_\_\_ GF

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

SATISFACTION GUARANTEED

# KAUFMAN'S

100 S. Flores

San Antonio, Texas

# What Others Are Doing

by JOAN PEARSALL

**RABBIT ROUNDUP:** Approximately 52,000 cottontails were live-trapped in Pennsylvania during the Game Commission's month-long trapping and transfer program early this year. This operation is conducted annually to remove rabbits from garden, park, cemetery and nursery properties, where they have been reported causing damage. They are transported to open hunting territory.

**HORDE FROM ABROAD:** A rash of overseas inquiries is pouring into Game Commission headquarters in Nebraska, for travel information on the state. Its boating chief is unofficial translator for the Information and Tourism Division. He was educated in Europe, and speaks several languages fluently. All inquiries to date have been replied to in the same language in which the requests were written, including Arabic. They have come from Spain, Argentina, Brazil, France, Belgium, Canada, Indonesia, and Iraq.

**WILLING TO BET:** South Dakota, a prairie state with some new and colossal reservoirs on its Missouri River, recently served notice on Minnesota that it considers itself the top fishing spot in the country, in spite of Minnesota's 10,000 lakes. The Governor of South Dakota proposed that each state hold a fishing contest, that they compare results by phone, and that the losing fishing team visit the winners in their state capital a week later to buy a steak dinner. South Dakota plans to have these contests with other states each year from now on, to prove its point.

**BLOCKBUSTING:** The Colorado Game and Fish Department is winding up a two-year investigation of the public lands access problem. A previous report revealed some one and a half million acres of public land blocked to free public access. The current study will contain an up-to-date status report on all areas

previously recorded, any new areas blocking access, and a listing of selected key areas where access denial poses major problems and where attempts to acquire rights-of-way by purchase have been unsuccessful. In addition, a map showing all new access roads built by the department, plus a description of the area opened, will be included.

**COUNTING THE GROUSE:** The second half of the summer ruffed grouse brood census, conducted annually by the New Hampshire Fish and Game Department, indicated an increase in broods this year over last. Game biologists who walked the 706 miles of grouse lines set up in six regions of the state found a major increase not only in the number of broods but in the size of broods.

**APPEALING PROJECT:** The Colorado Cowbells have resolved to work with the national Izaak Walton League and Colorado Game and Fish Department to improve relationships between the sportsmen and landowners. An auxiliary of the Colorado Cattlemen's Association, they have sponsored radio programs in this cause for the past seven years.

**NEIGHBORLY AID:** The South Carolina Legislature is considering a novel proposal which would earmark hunting license fees for management of waterfowl in Canada. The proposal would raise the non-resident annual hunting license fees in South Carolina from \$20.25 to \$22.25, and from \$10.25 to \$11.25 for temporary licenses. One dollar of the annual license fees and fifty cents of the temporary fees would be earmarked for the South Carolina Wildlife Commission for waterfowl management. The remaining increases would be sent to Canadian wildlife authorities for the propagation, management and control of waterfowl in Canada, where most of the migratory birds which visit South Carolina originate.



## A big buck with at least 12 points loped down the trail

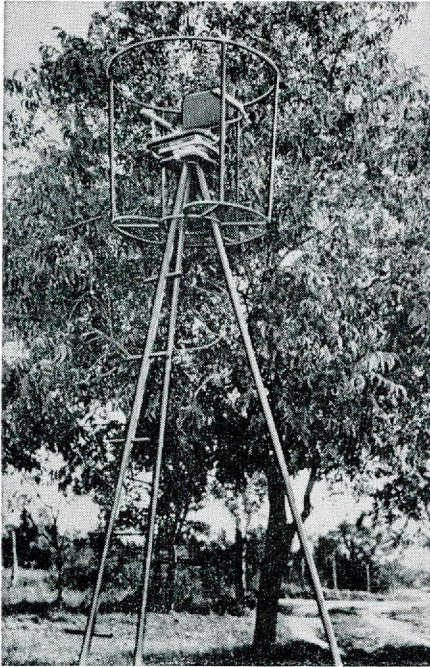
Little Deer

From Page 7

thanks. Had this happened to me in the stand, it would have resulted in a sure miss.

I mounted my stand in the late afternoon and things were just right. In fact, the timber even smelled like deer, and 30 minutes later, as the native birds became accustomed to my presence, I heard that soft noise up the trail again. Suddenly a doe came tripping down the trail. With a coy look over her shoulder she jumped on out of sight. This was my cue. I got set, arrow drawn, and then

### The Smart Hunter Still Hunts



Portable Hunter's Stand for all deer hunters. 10 or 15 ft. All steel tubing, swivel cushioned seat with banister gun rest. Good view of game. No odor when above. Excellent for hanging game while drawing. You may select game before killing. Gun rest for perfect shots. Cannot be excelled for bow hunting. Makes hunting leases more desirable. Perfect viewing stand for all sports. Canvas wind breaker as protection from weather—\$10. Model shown \$55 or 15ft. \$65. All prices f.o.b. Tree ladders in 5 and 10ft. sections at 50 cents a foot. All types of gun racks for car, Jeep and pickup \$2. to \$9.95.

#### Hunter's Equipment Manufacturing Corp.

Floyd Ogden, Owner

Route 4, Box 7      201 W. 40th St.  
San Angelo, Texas      Phone 8-7851

he came. He had horns (at least 3 points), but he was moving in a slow lope. "Me, hit a running deer with an arrow? Never!" Saying this to myself, I let fly. The arrow penetrated the deer's back and shoulder and he sat down right then and there. Believing only that the deer had simply stumbled, I nocked another arrow and let fly. This shot I'm proud of, because it is not often that I can place two arrows within six inches of each other. That old deer just gave up the ghost. And you talk about the shakes—I had 'em!

What happened next was a strange thing. As I was trying to collect my wits, a big buck with at least 12 points loped down the trail, jumped over my deer and was on his way. I hope he caught that doe, so the old stand will be hot again next season.

Believe it or not, I didn't really pay this big fellow any attention. In fact, I didn't even think of him until several days after the hunt. After all, I had a very dead deer with two arrows in him to dress and show off. A dead deer is a dead deer, but this one was different.

"I may never accomplish this feat again, and if necessary, I'll just go back to blasting away at them with the old smoke pole. Regardless of how I hunt, I will always spend lots of enjoyable hours preparing for the season. Anyone who doesn't is missing most of the fun. \*\*

**BOOKLET ON HOW TO Catch 'em 20 PAGES**

**"TROTLINE FISHING SECRETS"**... written by experts.  
How, when, where to set trotline, illustrated. Baits laws, tackle. Send 20¢ for mailing cost.

LAWRENZ MFG. CO., DEPT. C, 319 N. BISHOP AVE., DALLAS, TEX.

**KILL WEEDS**

**KEEP FISH**

### USE AQUATHOL FOR FAST, SAFE CONTROL OF UNDERWATER WEEDS

In just a few days Aquathol can clear your pond or lake of troublesome underwater weeds . . . without harm to fish or other water life . . . and leave water safe for livestock and recreation uses. New Aquathol, developed exclusively by Pennsalt, is simple to apply . . . economical to use. Available at your farm supply store or for information write Pennsalt Chemicals Corporation.

Bryan, Texas

a product of Pennsalt research . . .

**AQUATHOL\***

\*A trade-mark of Pennsalt Chemicals Corp.

## Subscribe Now!

To TEXAS GAME AND FISH Magazine  
Walton State Bldg., Austin 14, Texas

I enclose  \$5 for 5 years     \$3 for 2 years     \$2 for 1 year

Please send Texas Game & Fish Magazine to:

Name \_\_\_\_\_  
(Please print in ink)

Street or Box \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

New \_\_\_\_\_ Renewal \_\_\_\_\_

Sent in by \_\_\_\_\_

This is a Gift Subscription. Please send one of your special gift announcement cards with my compliments. Sign gift card \_\_\_\_\_

**NOTE—you may expect to receive your first copy of the magazine approximately six weeks after sending in remittance.**



**NEW!** FOR BAIT FISHERMEN!



Minnnows Perch Shrimp  
Aquariums Buckets Transporting  
Proven by exhaustive tests only a few drops per gallon water **KEEPS FISH ALIVE LONGER**..... \$1.00 bottle

**NEW!** FOR TROLLING FISHERMEN!

**DON'S TROLLING COVER**

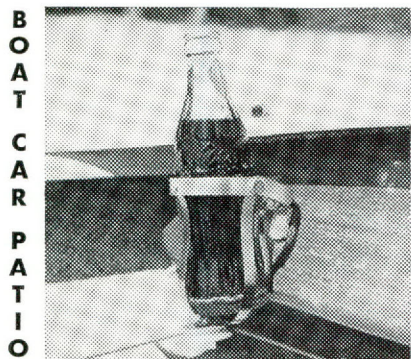


\$3.95 List

Speed to favorite fishing area with full power, slip on the cover, no tools necessary, nothing to fasten, belt or hook. Gives positive speed, no dying or logging of motor, no fouled plugs. Order for 2 blade or 3 blade to fix your motor.

**DRINK HOLDERS**

Only \$1.49 each



**RUSTPROOF**—Stainless & Aluminum  
Specify Dash Mt. or Chair Models  
**See Your Dealer**  
or order now—no C.O.D.—Dept. T

Jobbers Dealers Invited



Free Brochures

# Heap Big Cat!



Texas has some of the best catfish lakes in the country. Reports keep coming in to the TEXAS GAME AND FISH about some of the giants that are being caught. It's difficult to say whether Charles Byerly, of Curtis, is prouder of his twin sons, Paul and Bret, or the 83-pound yellow cat he caught at Dam B Lake near Jasper. The magazine is always looking for pictures like this. If you have one to match it, send it in for our consideration.—Editor.

**COMPACT PORTABLE KITCHEN-PANTRY**



For car, station wagon or boat. Nothing else like it. Holds stove, lantern, fuel, assorted groceries, cooking utensils etc. Write for FREE folder.

**CAMPERS KITCHEN COMPANY**  
P. O. BOX 6062 SAN ANTONIO 9, TEXAS

**GOOD HUNTING LEASE**

320 Acre ranch—12 miles southwest of Austin on beautiful Barton Creek. Plenty of deer and turkey. Furnished house.  
MRS. A. G. SIEVERS 804 Josephine  
AUSTIN, TEXAS Phone HI 2-8028

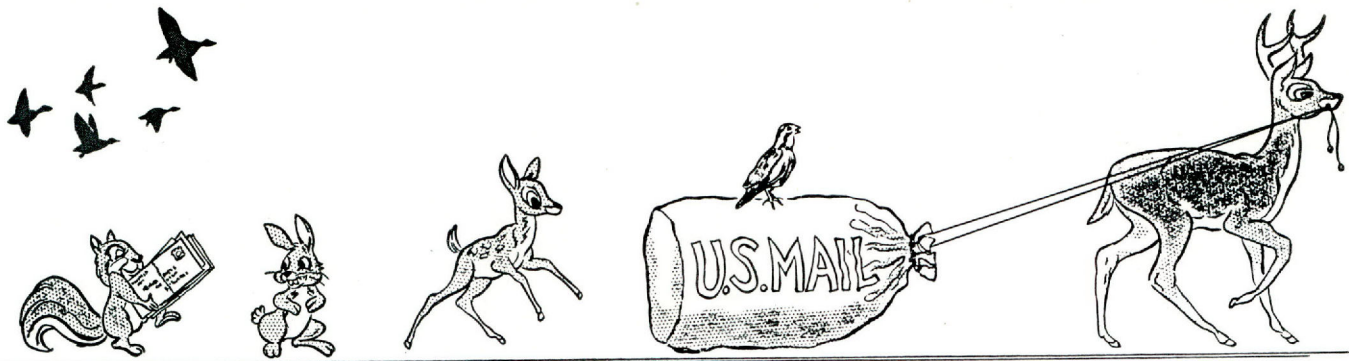
**Registered Pointer Pups**

*The best in gun dog breeding:*

3 litters to choose from.  
Priced very reasonably.

T. L. HARVILLE  
1821 Newell St. Alice, Texas





## Not Fair?

Editor:

We take the Game and Fish magazine, and have for a long time, and we think it wonderful. But, what I'd like to know is, can't they do something about the game laws here?

The poor quail. A person can kill 15 a day and even use dogs, and a hunter will kill every quail in a covey. Why is that? Quail never move very far from a place; they help land owners in fields and pastures by eating lots of insects, and you never see a quail destroying any crops.

Now, there is the dove. You can't kill but 10 or 12 a day and they don't stay on one place. You can't use dogs although doves destroy people's crops like maize, hegari, and corn. They will ruin just acres of it in a day. So why don't they take better care of the quail than the doves and not allow dogs to hunt them.

That's just like the squirrels don't have any protection. The hunters come and bother the landowner the year around to hunt squirrels. How can there be squirrels if you hunt them the year around and never give them a chance to raise. A mother squirrel has to be with her young at least six or eight weeks to protect them. The hawks, owls, and coons surely destroy the young, and if you kill a mother squirrel, the young will starve to death. We love to hunt squirrels, but we never kill a squirrel from December to May 15. We believe that gives them plenty of time to grow and manage for themselves. I hope you print this and see if more people don't agree with me, and if they don't, they just don't know any better.

Mrs. Phil Marthiljohni  
Victoria

## Puma? Lion? Sabertooth?

Editor:

Referring to your April issue and a letter by Mr. A. N. Turner about the big cat and his measurements of nine feet, 6 inches from nose to root of tail.

I am going to agree with Mr. Turner. I believe he is speaking of a panther, which is much longer than a lion, or some call what we have in this country a Mexican lion.

Dr. W. B. Davis is speaking of a lion which is much shorter than a panther and also has a shorter tail.

The reason I agree with Mr. Turner is that I have killed several lions and also several panthers. In 1896, when I was about 19 years old, I killed a panther that measured 11 feet, 9 inches from nose to

tip of tail, about 9 miles above Utopia. His head was 12 inches across his forehead. The same fall I killed a big black bear that I cooked 14 gallons of oil from. Yes, he was a big one.

R. H. Harper  
Utopia

## Junior Trophy Hunter

Editor:

This past Christmas was the first one our two grandsons experienced since they lost their father, our only son.

They spent the week with us at our hunting camp in Blanco County. We have never seen two boys more excited by the wonders of the wild.

Residents of Dallas, the boys, Barry Hedges, 10 years of age, and his brother Marc Hedges, seven, were in the spirit of adventure. With every rustle of the breezes, the younger boy fired his trusty B-B gun at imaginary game, while the older one waited unceasingly.

But when a young, fat buck actually appeared, Marc was very quiet while his brother Barry took deliberate aim with his .22 Hornet.

When the loud blast had shaken the woods, there lay the buck where it had fallen in his tracks. The bullet had passed through its brain.

Little Marc was loud in his excitement of his brother's skill and luck. He even said, "I'm proud of you, Barry. Lots of grown men have never killed a deer!"

But Barry remained quiet and speechless—except for big smiles of triumph. When he called his mother long distance an hour later, we understood more fully how he was "ticking" inside. He began the conversation by saying, "Mother, this is Barry. I just killed a duck!—a—a—duck—a—buck. I just killed a buck!"

Mrs. C. T. Hedges  
Olney

## Chameleon Care

Editor:

I read your magazine and enjoy it a great deal. I noticed an article from a boy who wanted to know how to catch chameleons and what to feed them. I thought I would give the information I have acquired by observing my pet chameleon.

At the San Antonio Livestock Exposition I purchased a chameleon which I have found to be a very nice pet. Generally he eats small insects, flies, spiders, worms and insects that are attracted to light at night. He will drink water out of a medicine dropper, and sometimes he will

drink it if I put a drop or so on the bottom of his cage. While drinking the water, his throat swells and becomes red. He usually drinks about four or five drops of water daily. Chameleons also shed their skin. My pet is taken out daily for he enjoys fresh air and sunshine.

My pet chameleon is kept in a cage 20 x 12 x 11 inches. On both front and back I have put ¼-inch mesh hardware cloth with a small door on the side. Be sure to put dead branches in the cage for your pet to climb on.

You might be able to catch a chameleon in a net made of fairly small mesh or cheese cloth. Find a chameleon and—lower the boom!

Nancy Vyvjala  
San Antonio

## Prairie Chicken Sighted

Editor:

Late one February afternoon just north of Egypt, Texas, I saw on the road shoulder a bird which looked exactly like a prairie chicken. I mentioned it to my wife but not having seen one in many years, I was a little doubtful.

When I came home from work one day in March, my first copy of Texas Game and Fish had arrived in the mail and after reading the article on the Attwater prairie chicken, there was no doubt left in my mind.

Back in the mid and late 1930's, I had relatives in Aransas Pass and Ingleside. We made frequent visits there and often saw rather large flocks of prairie chickens in the Tivoli area. On the many fishing trips to Port Aransas since 1946, I have never seen another in that area.

I am quite interested in birds and have a few books on them. I spend a lot of time around the mouth of the Bernard River and vicinity pursuing my favorite sport (fishing) and as a result, I have become quite familiar with the birdlife in the area. If I could be of any assistance in any way, I would be happy to hear from you. Last November I sent a band taken from a lesser snowgoose to the U. S. Fish and Wildlife Service.

I just heard from it about three weeks ago. It was banded near the mouth of the McConnel River in Northwest Territories, Canada, last July 19 and was killed in Brazoria County in November.

This past summer I observed a flock of about 50 roseate spoon bills near the mouth of the Bernard. I have never before seen so many in this area.

P. W. Johnson  
Sweeny





**THE BIG SCALPHUNTER**, by A. Kinney Griffith. 273 pages, including 14 drawings, a 16-page glossary, and a 3-page bibliography. Published by The William Frederick Press, 391 East 149th St., N. Y. 55, N. Y., \$4.95.

Something of the child who loves cowboy stories lingers somewhere in the heart of most of us, and it is to this child-like fascination in Western lore that **THE BIG SCALPHUNTER** appeals. An exciting, fast-moving account of depredations of ruthless scalphunters working under the pay of the Mexican government to slaughter Indians, this novel emphasizes the injustices done the Apaches after the Mexican War.

The conflict of two nations is mirrored in the war between two men—Jed Ryan, the big scalphunter, and Patricio Oricano, his best friend and foe—who know they must someday face each other in mortal battle. Resenting the wrong done the Indians as a result of the Mexican government's bounty policy, Oricano joins the mighty Apaches under Cochise to stop the scalphunters. Events leading to the climax are arranged so the reader wants to read the book from cover to cover without putting it down.

Primitive illustrations throughout the book have a charm that is difficult to describe, for they create a bigger impression on the reader than their actual appearance on paper. The reader feels the design much more than he sees it. The author illustrated his book himself.

The glossary of Spanish and Indian words and phrases is quite useful to the reader, as is the three-page listing of sources.

For the reader interested in Southwestern lore, this book holds an enjoyable treat.

—Carolyn Smyrl

**HORSES, HITCHES AND ROCKY TRAILS**, by Joe Back, with 52 black and white illustrations by the author, and appendix (list of food and equipment for 5 persons for 16 days). 117 pages. Published 1959, by Alan Swallow, 2679 South York, Denver 10, Colorado. Price \$2.75.

Even in this modern age, survival will often depend on just a few simple essentials. The author of **HORSES, HITCHES AND ROCKY TRAILS** knows plenty about the old skills of survival, and a yarn

he tells in the first chapter explains how the book came to be written. He and another guide came across a de luxe hunting camp while on the trail. It had all kinds of modern gadgets and comforts. But the campers had overlooked such fundamentals as oats for the horses, candles or lamps to fall back on when their light plant failed, axes and shovels, poling and banking their tent walls against snow. That "Jonesy layout" pointed to "man comfort, no horse comfort, no practical look-ahead." A storm that night put the whole camp into terrible shape and the two guides had to act as rescuers.

Joe Back, the author, does a most thorough job of teaching how to be well equipped for the wilderness and how to take the best possible care of pack horses. He dips humorously into some historical background, pointing out the importance of horses to such trail-blazers as Genghis Khan ("on foot this bunch of bowlegs would have been plumb helpless"), Cortez, the American settlers, and to the Indians. Much history has gone into the development of the rigging on a riding or pack saddle, and the names used to describe the equipment.

Packing a horse correctly is a real art. Like a tailor, a packer can size up a horse in a hurry and has a good knowledge of anatomy. The weight of the pack must be distributed properly, and the pads and blankets placed just right, according to the shape and size of the horse. A knowledge of rope and the right knots is essential.

This is the very opposite of a dull textbook. Joe Back gives a wealth of information in a highly entertaining manner. He is a very fine artist, and his drawings add considerably to the book, both for enjoyment and instruction. A lot can be learned just from them alone. His language is Western and colorful: it is sheer good reading, right up to the parting advice, "When you come to the end of your rope, tie a knot in it, and hang on!"

—Joan Pearsall

**TULAROSA, LAST OF THE FRONTIER WEST**, by C. Sonnichsen. 336 pages. The Devin-Adair Company, 23 E. 26th Street, N. Y. 10, N. Y. \$6.

Tularosa Valley, New Mexico, saw the last of the frontier days, the final Indian uprisings, the end of the Old West. C. L. Sonnichsen catches the spirit and flavor of

the code of the West in this exciting history which tells of men like Albert B. Fall, Albert Fountain, Pat Garrett, and "the bravest man in New Mexico" Francois Jean Rochas.

Because the author has talked to survivors of Tularosa's pioneer days, TULAROSA holds a new perspective of the feuds that ripped the desolate valley during the late 1800's.

Of Pat Garrett, Sonnichsen says:

"It is true that he was no hero. He was no great shakes as a husband and father. The refinements of life meant little to him. He gambled and drank and fought. But he was no coward and no hypocrite, and there was a lot of salt and yeast in him—more than enough to balance his deficits. Hollywood has belittled him. Storytellers have lied about him. Yet his name is inscribed for future generations among the law bringers."

Other characters come under the author's scrutiny, as does the valley itself: "From the beginning this lonesome valley has been a laboratory for developing endurance, a stern school specializing in just one subject: the Science of Doing Without."

Sonnichsen traces the history of the Tularosa Valley from its settlement by Texas cattlemen in the 1880's to its present strategic position as a missiles and rockets center.

The volume contains a 7-page bibliography, 24 pages of footnotes, and a 9-page index. Sonnichsen, an authority on the Southwest, is author of such books as *Roy Bean: Law West of the Pecos*, *Alias Billy the Kid, I'll Die Before I'll Run*, and *The Mescalero Apaches*.

—Carolyn Smyrl

## 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 or remailed from this office. Allow six weeks for processing.

Name.....

.....

Old Address.....

.....

City....., State.....

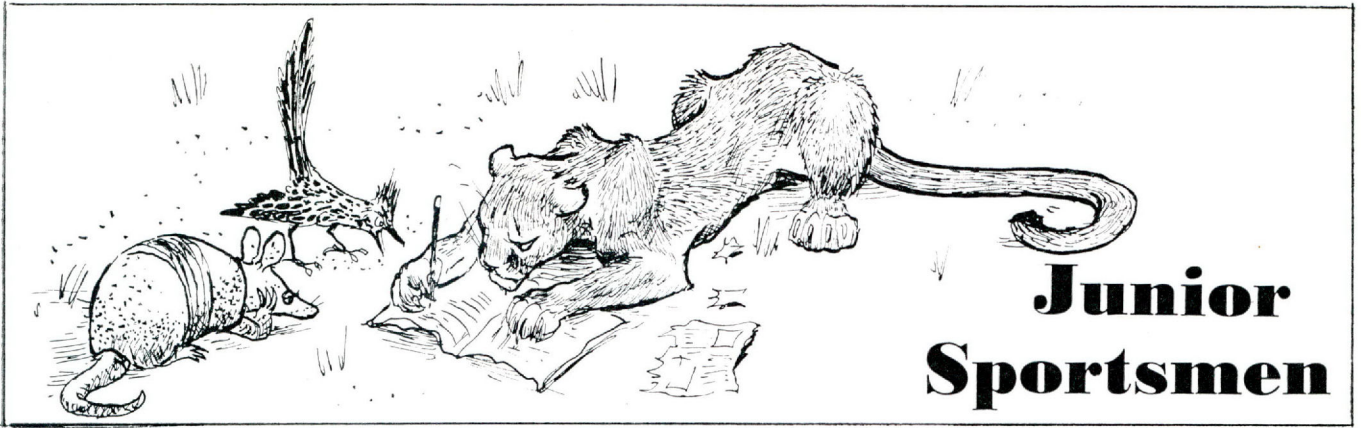
Please look on the mailing label of your magazine, find the number which appears on the right hand side, and copy it here:.....

New Address.....

.....

City....., State.....





# Junior Sportsmen

## Conservation Quiz by CAROLYN SMYRL

How is your wildlife I. Q. today? Here is a word game that will test your skill. Choose the word that will truthfully complete each statement below. Mark your answers before turning the book upside down for the answers at the bottom of this page.

1. A teal is a (a) dog (b) duck (c) camping tent (4) fish.
2. Ferrell's Bridge dam holds back this lake: (a) Lake Texarkana (b) Lavon Reservoir (c) Waco Lake (d) Lake of the Pines.
3. A polecat is a (a) cougar (b) mountain lion (c) skunk (d) perch.
4. Coyotes eat (a) meat (b) hay (c) cotton (d) oats.
5. A porcupine has (a) hair (b) feathers (c) a shell (d) quills on its back.
6. A bream is (a) the edge of a hat (b) a sunfish (c) a quail (d) a snake.
7. Chameleons are (a) dinosaurs (b) birds (c) trees (d) lizards.
8. A doe is (a) something mom makes into bread (b) a female deer (c) a male raccoon (d) an earthworm.
9. A hogchoker is (a) a sole (b) a mouthful (c) a carp (d) an insect.
10. Falcon Lake is on this boundary: (a) U. S.-Canada (b) Texas-Oklahoma (c) Texas-Mexico (d) Texas-Louisiana.
11. The caracara is a member of this family: (a) falcon (b) bear (c) squirrel (d) cat.
12. The four poisonous snakes of Texas are the rattler, cottonmouth, copperhead and (a) indigo (b) coachwhip (c) coral (d) adder.
13. Eight newly-born (a) otters (b) badgers (c) opossums (d) weasels can easily be held in a teaspoon.
14. Chaparral bird is another name for a (a) goose (b) roadrunner (c) turkey (d) dove.
15. The largest spotted American cat is the (a) bobcat (b) ocelot (c) margay (d) jaguar.
16. Padre Island is located off (a) Lavaca Bay (b) Copano Bay (c) Matagorda Bay (d) Laguna Madre.
17. A bald eagle has (a) black feathers on its head (b) no feathers on its head (c) gold feathers on its head (d) white feathers on its head.

18. This animal has become such a nuisance in some Texas waters that a contest was held recently which offered prizes to persons who could shoot and eat the most (a) nutria (b) coyotes (c) beavers (d) muskrat.
19. What animal sharpens its teeth every time it shuts its mouth? (a) coyote (b) wolf (c) beaver (d) deer.
20. This bird is closest to extinction in Texas (a) mockingbird (b) cardinal (c) pelican (d) whooping crane.
21. What mammal uses radar to find its food? (a) chipmunk (b) squirrel (c) bat (d) rat.
22. What mammal always gives birth to four babies of the same sex? (a) skunk

- (b) deer (c) puma (d) armadillo.
23. This animal is the only poisonous mammal in Texas. (a) shrew (b) fox (c) kangaroo rat (d) rabbit.
24. What animal uses gliding for locomotion? (a) rabbit (b) flying squirrel (c) deer mouse (d) bat.
25. This animal is the most fleetfooted North American mammal. (a) mule deer (b) pronghorn (c) white-tailed deer (d) bighorn sheep.

### Answers:

1. (b) 6. (b) 11. (a) 16. (d) 21. (c) 2. (d) 7. (d) 12. (c) 17. (d) 22. (d) 3. (c) 8. (b) 13. (b) 18. (a) 23. (a) 4. (a) 9. (a) 14. (b) 19. (c) 24. (b) 5. (d) 10. (c) 15. (d) 20. (d) 25. (b)

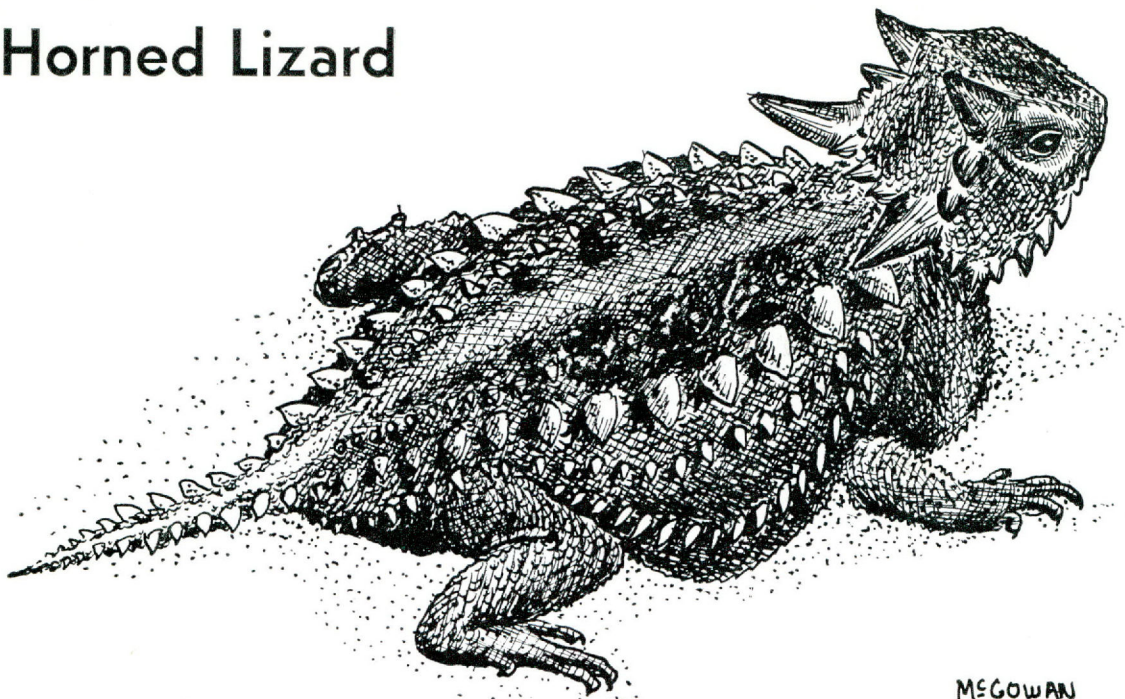
## Sportsmen of the Month



**DON'T KILL EVERY SNAKE** you see! This is the story behind the picture. All snakes are not harmful. Most of them are our friends because they help control rodents, such as mice and rats. Of course, it's not a good idea to pick up every snake you see, unless you can identify all of them. When in doubt, don't kill them. Jon Shraeder, right, Bruce and Jonathan Carson know this pilot black snake is harmless.



# Horned Lizard

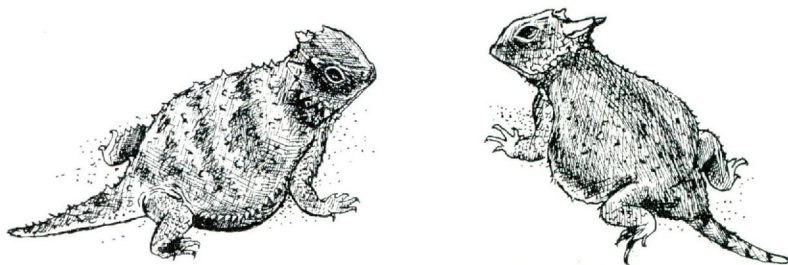


MEGOWAN



The above Horned Lizard, *Phrynosoma cornutum*, or "Horny Toad," is the most well known lizard in Texas. It is popular in legend, fact and fiction. Inhabiting all of Texas except the extreme eastern portion, it averages 3 <sup>3</sup>/<sub>8</sub> inches head to tail. Dry flat ground with scanty vegetation is to its liking. It is active during the day. At night or during a rain, it buries all but its head in sand. Although harmless, its defense reactions are alarming. When picked up it wriggles, uses the horns on the holder. Frequently it will lunge and hiss with open mouth at its attacker. The bite is just a pinch, however. The most remarkable of all is the ejection of blood in a thin stream from the eye. This causes it no pain but seems to repulse cats and dogs, the main targets. The Bleached Horned lizard, *P. modestum*, at lower left, is less common and is restricted to Terrell, Taylor, and Donley counties in West Texas. Right, is the rare Short Horned Lizard, *P. douglassii*, seen only in Culberson, El Paso and Jeff Davis counties.

Horned toads burrow straight down into the sand, belly first. One spiny edge of the flattened body is shoved into the sand, flipped up, tossing dirt over its back. The other side does the same and by a quick series of these actions the lizard covers all but its head. They also bury themselves headfirst, angling downward. The horns fling sand on the back and a flick of the tail finishes the job.



## Texas Game & Fish

Published monthly by

The Texas Game and Fish Commission

Walton State Building

Austin 14, Texas

DALLAS PUBLIC LIBRARY  
SERIALS DEPT  
DALLAS 1 TEXAS

08

POSTMASTER: If undeliverable, please notify at above address on form 3579.