

Texas Game and Fish

DECEMBER

1959

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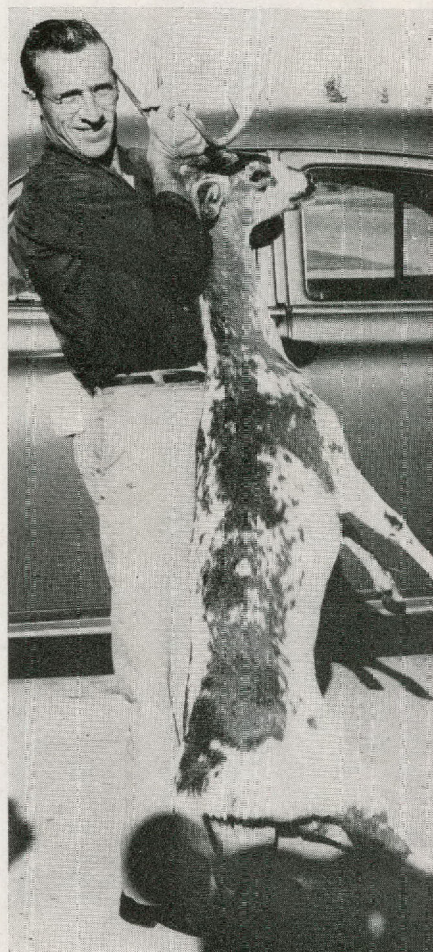
Memories of yesteryear
spur hunters' hopes today!



Two trophy bucks climaxed last deer season in South Texas for Jimmy Towers, Austin. Shot on the Von Rosenberg Ranch, the 17-pointer, left, dressed 145 pounds; 9-pointer 161 pounds.



Unusual trophy of a "cactus" buck male deer in velvet was taken by Raymond Brown of Austin in November, 1957, in New Mexico.



"Pinto" white-tailed deer, 75 pounds, was shot on the Scott Klett Ranch near Johnson City by Jimmy Norton in 1953.



Six successful hunters (including the photographer) downed 17 geese, 17 ducks near Katy in '58.

Texas Game and Fish

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TEXAS GAME AND FISH is published monthly by the Texas Game and Fish Commission. Subscription price \$2 per year. 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. Entered as second-class matter May 19, 1943, at the post office at Austin, Texas, under the act of March 3, 1879.

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

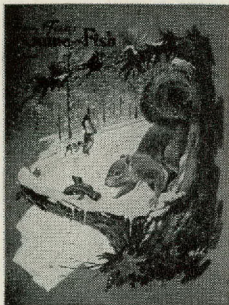
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The Cover



To the frisky fox squirrel which has chattered many a day at a friendly boy and his dog goes a gift of appreciation—the fattest, longest, juiciest pecan the boy could find. Adults, too, owe wildlife a debt for the enjoyment it gives them. This obligation can be paid in a long-range program of study and management. (See related stories, "Research—the Pulse Beat of Progress," page 4; "Stay the Greedy Hand," page 8.) Cover painting by Clay McGaughy.

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.

December, 1959

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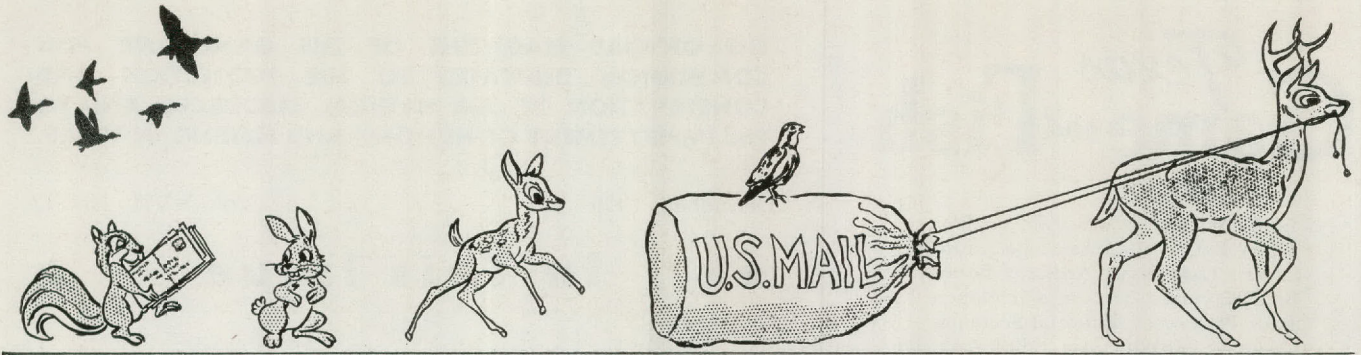
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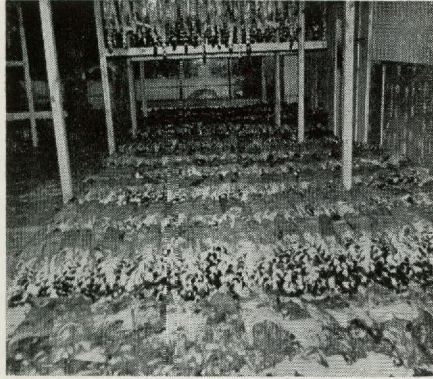
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Wall to Wall



Editor:

This picture represents a portion of the 22,000 ringtails purchased by me during last year's fur season. I am a fur dealer in Junction.

Leonard Sutton
Junction

Deer Parasite

Editor:

I am sending you under separate cover a worm that I took out of a deer's mouth last season. I have seen men take their deer to the dumping grounds because they saw them in the deer's noses or mouths. I know that it doesn't hurt the deer meat any. But I think that the hunters should know.

Louis H. Marion
New Braunfels

(The parasites of which Mr. Louis H. Marion speaks are undoubtedly the common nose bots which are found in the nasal cavities, sinuses, and trachea of deer in Texas. Oddly enough the particular species which infest whitetails has not been found, to my knowledge, in sheep and goats. It also seems that the head bots which infest mule deer are not found in whitetails and vice versa. I believe the \$64 name of the parasite is *Cephenomyia*. There are a number of different species of this parasite which in reality are the larval stage of a fly. Of these the species *Pratii* seems to be the most prevalent in Texas. Only in rare instances are there accounts in the literature of these parasites occurring in deer in sufficient numbers to actually cause death. There were some instances a few years ago in Colo-

rado when extensive losses to deer were attributed to the nose bot.

(In the younger stages the larva are white in color but as they approach the pupal state they turn sooty black. They can often be found on the floors of cold storage plants where deer are cooled out during the open hunting season.

(If a deer is in good physical condition there is no reason whatever for not eating the meat although he may be infested with a few nose bots. In cases where heavy infestation occurs, the deer are very poor and the coat is rough and ragged. No one would wish to eat that kind of deer under any condition.

(The presence of a few of these parasites will in no way affect the edible qualities of venison. They are confined entirely to the openings in the head and windpipe. —E. A. Walker, Director, Wildlife Restoration Division.)

Call of the Wild

Editor:

Enjoy reading TEXAS GAME AND FISH very much and think you are doing a most wonderful job. May you keep up the good work.

My purpose in writing this letter is to ask a question, one that has been bothering me and had me wondering for quite some time. Do wolves and coyotes cross with dogs?

I contend that they do not, but hear hot arguments they do. Only last week I heard a radio announcement of some person to give a half-wolf and half-dog away. Sounds ridiculous, so that is why I am asking this question.

I have been living in the area of wolves and dogs most of my life and have yet to run across one of these creatures.

Harold E. Rawlings
Rosharon

(There are a few cases on record where there has been a cross between wolves and dogs. It is very rare, however, in this part of the country. Most of the reports of crosses have been from Alaska, where frequently escaped malmutes and huskies revert to a wild state and eventually cross. You will be interested in our wolf story in this issue, page 10, "Shadow in the Woods."—Ed.)

Thinking Aloud

Editor:

On a deer hunting trip last November with my husband, I was inspired to write this poem. I had all these thoughts as I sat next to my husband, waiting and watching at daybreak for the big moment. I wonder if other hunters have had these same feelings and might enjoy my poem.

Deer Hunter's Prayer

Forgive me, Lord,
It was more a wish
Than it was a prayer
As, quietly, I whispered,
"Send a buck by here."

For quickly I felt
As I sat in the tree,
It isn't fair that I ask help for me.
Our chances equal—that's part of the
game.
As cautiously we move in your world
of fame.

As the day break is near,
And all's quiet around here
The soft cold wind plays this tune in
my ear,
"It's just between him, Lord,
Between him and me,
The old buck and me, Lord, with you
the referee."

I say this, Lord,
Because without him I could survive.
I don't have to have him to keep my
family alive.

Maybe it's the way you've made me, Lord.
It's the hunter in me, I guess,
That sends those chills running down my
spine

When I feel that maybe it's about that
time.

Although luck may not be with me,
No deer may come my way,
Take me safely home, Lord,
To my family, I pray.

But if this be the day, and I might win
the bout,

Make me thankful, Lord,
Thankful without a doubt.
May I use the meat wisely,
Sharing with my friends,
Exchanging stories readily
As this deer season ends.

Mrs. A. E. Campbell
Corpus Christi

a Star on Our Doorstep

by HOWARD D. DODGEN

executive secretary

Game and Fish Commission

NEARLY 2,000 YEARS AGO THE WISE MEN followed the star of Bethlehem to the manger where our Savior was born. Today the wise men all over the world are attempting to find a landing spot on the moon.

We are living in a space age. Each day we are faced with new challenges on age old problems. Our population is increasing; our demands on every natural resource rise in proportion. We find new uses for our land, and greater requirements for our water. Our air is filled with fumes of gigantic industrial plants, and in many places insecticides blanket huge areas to destroy insects. Jet planes zoom overhead at speeds beyond the sound barrier, and no longer is the eagle the most important thing that flies.

We are in an age of satellites, with sputniks, vanguards, and space ships. We use atomic energy to create power and to propel submarines.

In all this mad rush, however, we are still confronted with the problem of wildlife conservation and propagation, and the job of providing our increasing millions with suitable outdoor recreation.

This Christmas season is a good

time to pause and reflect that, though man is reaching out farther into the Universe, and understanding more of its secrets, he is still just a very small part of it. There is a temptation for man to become inflated with his own importance and cleverness, yet if he will stop to look around at the beauties and wonder of nature he will realize that the smallest plant or animal is as marvelous a creation as a star, and that without earth's natural resources man could not indeed be reaching to the stars. We could well take heed of the love and humility symbolized by the Savior's birth 1959 years ago.

All over the free world there will be Christmas trees, and they will be loaded with goodies and presents for everyone. There will be a season of feasting and songs and happiness. We who are in the work of providing for and protecting our renewable resources wish for you the greatest happiness possible. We also want to leave with you our assurance that we will continue to do everything possible to make all the Christmases that follow just as happy and just as pleasant.

RESEARCH...

the Pulse Beat of Progress

OUR ATOMIC AGE IS ONE OF SCIENCE AND RESEARCH. Industry already has learned that sound and competent research is a major necessity. Two world wars have demonstrated that survival as well as political and economic security are dependent upon it. The United States currently is spending \$5 billion a year for research, or more in one year than during its long history from 1776 to 1933.

Not all research pays directly. DuPont's chemical department estimates that $\frac{1}{3}$ of the studies end in "laboratory flops;" 50% are successful in the laboratory but prove impractical for economic production; less than 10% goes to a manufacturing division for development, and only a fraction of this ever goes into production. Still their research pays big dividends in the long run.

From it the most startling gains have been made. Our modern electrical industry was made possible because of the basic truths developed through Faraday's simple experiments with a glass rod, silk handkerchief, and a cork. DuPont's lucrative nylon, dacron, and urethane foam industries resulted from basic molecular studies of raw silk. Basic research into the structure of matter has revolutionized transmitter in communications. This came about because of Bell Telephone's discovery in 1948 that such common materials as silicon can be made to act like a vacuum tube in amplifying electrical impulses. As a result, a flea-sized transmitter has made a kingsized new industry.

Atomic power, radar, and jet propulsion are among the most startling and important basic research results in recent years.

It seems to me that if we are to retain our valuable national wildlife resources in this age of almost explosive human population increases, our wildlife research programs must be stepped up.

Major research "problems" include both the specific research projects

and the much needed financial and sympathetic support, favorable atmosphere for research, non-political interference, wise supervision, and competent researchers to make the studies.

Among the specific research projects most needing attention are:

1. Determination of procedures for more effective integration of sound wildlife management into profitable agricultural, forestry, and grazing practices. Despite the past work in this field, changing agricultural practices and the growing of new and improved crops require a dynamic research program to cope with the ever-changing conditions. With rising land valuations a more intensive agricultural, forestry, and grazing husbandry can be expected. Wildlife will continue to recede and finally vanish from much of its present range unless the wildlife manager, guided by sound research, keeps abreast or ahead of these inevitable changes.

Public wildlife agencies must work with the private farmer, forester, and grazers and point the way for maintaining a crop of game and other wildlife without affecting adversely the land owner's economic returns from his land.

Because of past destructive land practices America has millions of acres that are largely worn out and low in the production of wildlife. Research should be directed toward improving these lands and making them produce a much larger crop of game.

Other studies are needed to appraise the effects of different land cultural practices of soil conservation, agriculture, grazing, and forestry. For example, research should determine what effects different degrees of grazing have upon different species of game and other wildlife. Also, we need to know precisely the wildlife values of the many different soil conservation practices.

2. Basic research on environmental relationships or ecological studies of the whole biological community. We

have had many splendid studies involving intensive research on various individual species. However, we must know vastly more of the inter- and intra-species relationships under differing population densities, varying land use practices, and climatic and other environmental conditions.

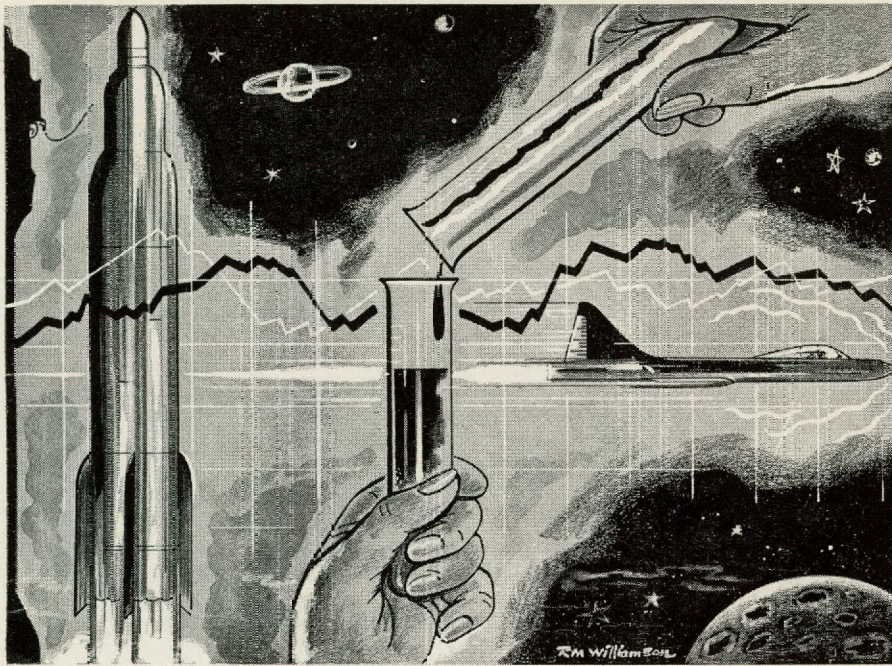
3. Procedures for more effective use and management of our water resources and the wise correlation of use of water for agriculture and industry along with fishery and wildlife management. This should involve studies on pollution and pollution-abatement in relationship to fisheries and wildlife. Much good work in this broad field has already been done, but a great deal more is urgently needed.

In much of the Southeast, black or amber waters that are relatively infertile, are common. Studies need to be directed to improving their productivity. Suggested lines of attack might include temporary and repeated drainage and the planting of desirable wildlife foods, carp removal, and the use of chemicals to cause organic and inorganic substances, which are held in colloidal suspension, to precipitate.

4. Effects of control agents—insecticides, herbicides, fungicides and rodenticides—upon fish and wildlife resources.

Funds for the development of new control agents are almost unlimited and new chemical agents are coming out continuously. Unfortunately, there is comparatively little financial support for testing effects of these materials upon fisheries, wildlife, and their habitats. We know almost nothing of even the direct effects of many control agents on plants, animals, soils and soil organisms, and we know still less of the indirect, accumulative and long-time effects these controls have upon wildlife, plants, and even upon man.

The states should expect to assist with this important research. There is also need for a wider recognition



by DR. CLARENCE COTTAM
director, Welder Foundation

of the responsibility for hazards on the part of all concerned, including industry and those who apply pesticides. More stringent laws regulating the sale and use of chemical poisons are needed in many states.

Specific herbicides represent an excellent tool of wildlife management. Their benefits, use, and limitations can be determined only through sound research.

A closely related problem, which may be included under the heading of agricultural fertilizers, needs study by the wildlife biologist to determine the feasibility of fertilizers to produce more and better wildlife crops, and perhaps at the same time to control pest vegetation.

5. Determine the public values, wisest use and management of our wetland resources. The drainage craze, encouraged by Federal bureaucracy and stimulated by an over-generous government subsidy hand-out has already done irreparable damage to our water supply and wildlife resources. Research pertaining to our wetland resources and the wildlife dependent upon this type of habitat is needed to afford sounder planning and management. We need to know more of the relation of these wetlands to floods, flood-prevention, and ground and surface water supply, as well as to wildlife. Without question, much of agricultural drainage has been in the public interest, but too much of

it has been sadly misguided and seriously damaging to the national interest. We need sound research and wiser management of our wetlands, and we need now to build on the splendid wetland inventory that recently has been made by the states and our Federal service.

6. Research is needed to objectively measure and appraise all of our regulations and laws pertaining to harvest. With changing conditions and more factual data, I have a feeling that some of our regulations could be improved and brought up to date, and perhaps enable us to safely take a larger harvest. Regulatory authority should be placed in the hands of the responsible administering agency. A research program objectively measuring the effects of each regulation should aid the states in obtaining that needed authority.

7. Wildlife disease, nutrition, and pathological research justifies far more public and private support than it has yet received. Many basic studies are urgently needed. Disease is inextricably tied in with cycles and population dynamics. We yet know little of the cause or control of cycles that periodically remove much of our game. There is urgent need to study the ecology of disease and investigate the latent and epizootic diseases in relation to animal numbers. We know far too little of the role of nutrition and other stress factors in relation to

population reductions.

Far too little is known concerning disease virulence, disease resistance, reservoirs, and vectors. Experimental studies on disease control are profoundly important in sound management.

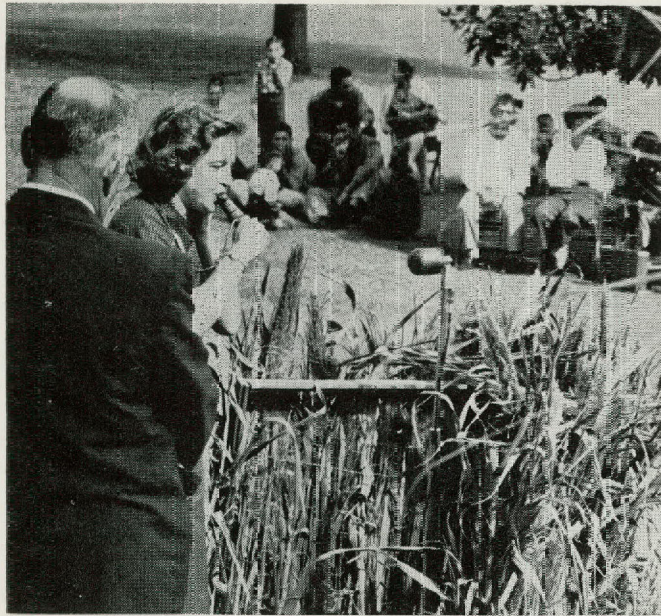
Yearly economic value of game loss is staggering, and it leaves one with the feeling that we cannot afford to remain aloof from disease research. The abrupt death of 10,000 deer, which occurred in 1949 in the southeast, approximated a million dollar loss. In an average year we probably lose upwards of 100,000 ducks (and geese) from botulism and other very large numbers from lead poisoning, fowl cholera, and nutritional deficiencies, and still larger numbers from other unknown causes.

A definite relation of wildlife diseases to domestic livestock and even human beings is known to exist, yet the details of these relationships are obscure and indefinite. Certainly, this broad subject deserves public support on both the state and national level.

8. Determine the need and economy of introducing exotics. Indiscriminate introductions can be extremely costly and wasteful, but a planned program to fill a vacant niche might ultimately prove highly advantageous.

We live in an age of research, and this is as basic to sound wildlife management as it is in the fields of agriculture, chemistry, medicine, or industry. To be successful, the research personnel must be competent; and to assure this the salary scale must be reasonable and commensurate with his training, abilities, and responsibilities.

A prophet of ancient Israel observed that "without vision the people perish." Prophetic wisdom applies as forcibly in the field of wildlife conservation and management as it does or ever did in the field of industry, government, or religion. Our greatest need in wildlife management is that we awake to our opportunities and responsibilities. **



Tennessean Mrs. Frank Camp takes her turn in the duck calling blind.

Duck -- the Callers Are Coming

by THERON D. CARROLL
ass't. director, Information-Education

THE MARSHES WERE FULL OF DUCKS, but a couple of lonesome water turkeys were the only two marsh birds to visit the Annual Gulf Coast Championship Duck Calling Contest held in Port Arthur, October 17.

Perhaps the parades, speed boat races, fishing rodeos, and the other excitement created by Port Arthur's annual Cavalcade was enough to scare the gizzard out of any sensible duck or goose—but it surely brought the people! Thousands of coastal residents showed up, among them hundreds of duck callers. The youngest I saw was seven years old, and his duck call showed the signs of wear and use—maybe Port Arthur youngsters do use duck calls for teething rings, as I've heard. There were champions, too—Arkansas, Louisiana,

Mississippi, Texas, Illinois, and Tennessee all had their top callers entered. Several lady champs were on hand, and as one duck hunter said, "They would sure make a duck blind attractive even without their duck calls."

The kids had their show. With all the racket they created with their mid-morning practicing, I wondered how some of them would be able to get a single squawk out of their calls by the time their contest started, but they were quiet—or absent—during the men's elimination call which began shortly after noon.

Eleven finalists were selected from the 35 preliminary callers. The lucky 11 coupled with the 12 established champions comprised the field for the open championship contest.

An added attraction which pre-

ceded the junior, women's and open duck calling finals was an archery clinic conducted by Ben Pearson of Ben Pearson Incorporated, Pine Bluff, Arkansas, world's largest manufacturers of bows and arrows, and his associate, Jack Witt.

They gave a fancy exhibition of bow and arrow accuracy using stationary and moving targets. For the archery enthusiasts present, they answered hundreds of questions and demonstrated archery fundamentals.

Dayle Wiley, of Stuttgart, Arkansas, who emceed the contests, got the callers back in the blind and, just like clock work, four top junior callers were selected. John Conerly of Groves, Texas, was judged Junior Champ (his dad was Gulf Coast Champ last year), Mike Cheney, also of Groves, was runner-up, and Ron-



Early in the day, judges appear cool and calm as the contest starts. Facing camera are Griffith, Camp, Landry, Farris, and Woodford.



A difficult task and a hot sun takes their toll on the men. They were seated near enough to hear, but out of sight of the callers.

ald Stepan, Pt. Arthur, and Dickie Lawton, Baton Rouge, Louisiana, placed third and fourth.

Among the fairer sex, comely Billie Dominique, 14-year-old miss from Port Arthur, was declared Gulf Coast Champion. Pretty Brenda Peacock, women's world champion of Stuttgart, Arkansas, was runner-up. The attractive trophies and prizes for third, fourth, and fifth places went to the equally attractive Mrs. Chick Majors, of Stuttgart; Mrs. Frank Camp, Memphis, Tennessee; and Mrs. Nell Young of Pine Bluff, Arkansas.

The judges, Raymond Farris, Ducks Unlimited, Memphis, Tennessee; C. O. Wofford, Weiner, Arkansas; George T. Camp, Beaumont; Jake Landry, Port Arthur; and Jim Grif-fith, Winnie, Texas, had the hardest job of all. Just how is a fellow supposed to judge tone or basic sound quality, general technique, false notes, and so forth? Well, they had to be impartial—they judged each caller by his number and when they judged caller number 15 to be a little better than caller number 16 they had no idea who was doing the blowing. They were separated from the action by a marsh cane screen and they sat with their backs to the participants.

Shortly after five in the afternoon the open finals began. Some 45 minutes later the results were announced.

All the first four places were won by men living within 12 miles of the sub-courthouse where the contest was held!

James Fernandez, Groves, was acclaimed as Gulf Coast Champion Duck Caller for 1959. Runner-up Charles E. Smith is a native of Port Arthur. Jim Bonsall of Groves, winner of last year's Southwest Regional Duck Calling Contest held at the South Texas State Fair in Beaumont, placed third, and Golden Moss of Port Arthur was fourth.

Top winners received handsome trophies. A \$750 savings bond went to the grand champion, while \$200 and \$100 bonds went to the second and third placers. Wrist watches, hip boots, decoys, cameras, purses, sweaters, and game calls galore went to most of the other entries.

The entire show was an impressive one. The hours of planning by the many committees really paid off.

Congressman Jack Brooks, who makes a special effort to attend the Annual CavOlcade told me that he really enjoyed this meeting because ". . . there is so much participation and everybody seems to have a part." His observation is born out by Game and Fish Commissioner, Port Arthur's Henry J. Le Blanc, Sr., who addressed the crowd gathered for the Open Championship finals. LeBlanc complimented the people for their interest in their natural resources and charged them with the responsibility of working cooperatively for continued good hunting and fishing.

In a community where names such as LeBlanc, Kirkpatrick, Salem, De Coux, Ryan and Smith suggest a cosmopolitan ancestry, I suppose it is typically American to find these people cooperating for the common good.

I've never before seen so many people working so hard and enjoying it. They all seem to be proud of their local natural wealth and their geographic location—in the heart of the "world's best fishing and world's best duck hunting!" Families enjoy the out of doors together and I've a feeling that most of them are interested in conservation. **



Dickie Lawton, left, came in 4th; Ronald Stepan, 3rd; Mike Cheney, 2nd; John Conerly, 1st.



Women champs: Billie Domingue; Brenda Peacock; Mesdames C. Majors, F. Camp; Nell Young.



Emcee Dayle Wiley presents Open Championship winners James Fernandez, 1st, Groves; Charles E. Smith, 2nd, Port Arthur; Jim Bonsall, 3rd, Groves; and Golden Moss, 4th, Port Arthur.

Stay the greedy hand!

THE VAST BULK OF WILDFOWLERS IN THIS COUNTRY demand that waterfowl never be permitted to follow the sorry trail of greed and waste that took the passenger pigeon to extinction and the buffalo to the brink of oblivion.

Yet there are others, usually in small, noisy minorities who have learned nothing from the pages of history. If unrestrained by some governing hand, they would have our ducks and geese wiped from the map in a few short years.

I have determined to attempt to pull together in one volume the story of the year-long studies and observations that precede the issuance of the annual regulations, the expensive and painstaking effort that goes into the purchase, improvement, and management of the wholly inadequate system of waterfowl refuges; to emphasize that we are still losing ground in protecting and in restoring habitat; that enforcement is wholly inadequate; that too many birds are still illegally taken during both the open and closed seasons; that hunting pressure has increased beyond all predictions, and that the over-all picture is far from bright.

The impact of the expansion of agriculture and industry on waterfowl goes much deeper than mere drainage of marshes. Warranting real concern has been the lowering of the ground water levels which has occurred in many areas of the United States. With underground water reservoirs being sucked dry to provide the things we demand for our present standards of living, surface depressions lose their water levels much more quickly than they did formerly. In those areas, instead of spring rains and thaws filling potholes that will remain stable through the hatching season, there is an increasing tendency for these same waters to disappear so that marshes now go dry in the early summer. Then we have appalling losses of fledgling young and moulting adults. The fac-

tor of safety is now so narrow during the breeding seasons that drought conditions on the vast prairie breeding areas of Canada and our own United States immediately result in drastically curtailed production. The direct return to the hunter is inevitable—a small bag limit and a short season.

Many drainage projects have been failures, and wherever possible they should be restored to wildlife. Many other areas that are now outstanding for wildlife should be perpetuated in their present state. To preserve them, wildlife interests—federal, state, and private—must acquire them and keep them. The waterfowl program is in competition with a host of other uses of land and water, and if the resource is worth preserving sportsmen and conservationists *must* be willing to pay prices sufficient to compete with those other demands.

"Why in the name of common sense," a disgruntled duck hunter recently inquired, "does the Fish and Wildlife Service want to deliberately ruin the sport for us duck hunters who pay the freight? One would think that you folks would have more consideration for the people who finance the waterfowl program. After all, we buy state hunting licenses each year, we buy duck stamps, and many of us contribute to Ducks Unlimited. Yet what happens?" He continued, "I'll tell you what happened to me. The United States government recently came in and bought up all the good marsh in my country, so it leaves us fellows no place to go hunting. Now the refuge pulls all of the birds into it after the first shot on opening day. It makes us pretty sore to see the birds settle down on that dratted Federal refuge with nothing for us to shoot on the outside. Personally, I am not in favor of refuges, and I know a lot of other duck hunters who feel the same."

Ducks and geese are living things. They must have food and suitable

environment the year 'round—not just during the hunting season. It takes more than the purchase of a duck stamp and a hunting license and a contribution to Ducks Unlimited to provide waterfowl hunting. It requires intelligent planning, much actual management to develop and maintain habitat, good law enforcement, and current information of populations to make the program work. There are many unknown factors, and there always will be, because waterfowl production and protection must be fitted in with ever-changing pattern of land and water uses.

These refuge areas not only provide for the ever-pressing needs of ducks and geese, they also cause the birds to remain in the community longer because there is a place where they are welcome to rest and feed unmolested.

The destructive killing methods of earlier days were finally brought to a halt in the Migratory Bird Treaty with Great Britain and the subsequent enabling legislation known as the Migratory Bird Treaty Act. The hunting of waterfowl was no longer the right of the citizen. Now birds could be taken only as *permitted* by the regulations. If no regulations were issued, there would be no open seasons. Had it not been for the foresight and the persistence of those early conservationists, there is little doubt that legal hunting of waterfowl as we know it today would have been a thing of the past many years ago. Those who criticize the annual hunting regulations will do well to ponder the background. Ever today disgruntled sportsmen occasionally express the opinion that the Federal regulations are unnecessary and unwarranted, and that the control of hunting for migratory waterfowl should be returned to the states. The pages of history speak to the contrary.

Hunting regulations must be made on the basis of the current situation

Excerpts from

North American Waterfowl

By Albert M. Day, U. S. Fish & Wildlife Service

Published by Stackpole Company
Telegraph Press Building
Harrisburg, Pennsylvania
\$5.75

on the breeding grounds. It is obviously impossible for anyone to sit down in mid-winter and determine off-hand what the waterfowl hunting regulations should be for the following season. That determination must be based upon information obtained each year in the Northland by trained biologists who observe the approximate success of the spring hatch. If the birds find suitable conditions with ample water when they go north in the spring to nest and make their summer homes, they will bring off large broods. Then the hunting regulations for those flyways can be more liberal than in the years when the birds find the sloughs dry and weed-grown, the potholes mud-caked, and when nesting locations are few and far between. The success or failure of the nesting season is the key to the kind of regulations issued in the fall. The more complete the appraisal, the more accurate the regulations will be.

The bulk of the waterfowl follow certain definite migratory patterns from nesting grounds to wintering grounds. Regulation by flyways probably will be increasingly accurate as more definite information is obtained through banding and year-long observation.

Waterfowl banding is one of the most useful management devices available to the regulatory agencies for obtaining data on which to base hunting regulations. While much has been learned, the potential value of well-planned projects in strategic production and wintering areas holds great promise for obtaining data which will be of increasing value, particularly when more closely correlated with the annual inventories and breeding ground surveys. Here are some of the returns to be expected from well-organized, extensive banding operations: a closer approach to the total waterfowl population in the

North American continent that it has been possible to obtain to date; a more accurate delineation of the flyways; the value of the various specific breeding grounds in supplying ducks and geese to specific hunting areas; variations in the total hunting pressure from year to year and among the different sections of the country; the over-all value of different species in supplying sport for hunters; losses in population due to hunting, disease, accident, lead poisoning, and predation; sex and age mortality, which is important in evaluating the classes of birds that bear the brunt of the hunting pressure; longevity and the period during which the population of any given year continues to supply sport; and an index of the total annual kill of waterfowl.

The most equitable means of distributing the allowable take is to expand or restrict the length of the open shooting period. When a more liberal season can be granted, a greater spread between the opening and closing dates insures a better chance that ducks and geese will pass through every portion of every state during the interim. Of course, that does not mean that each section will enjoy good shooting for the full time. That would be impossible. If that were to occur in every local spot and if any reasonable proportion of the hunters were able to secure their bag limits each day, there would be little left for the next year.

Unforgiving Nature constantly reminds us that as we sow, so shall we reap. Dust storms, eroded and abandoned farm lands, overgrazed and ruined ranges, floods, lowered water tables, droughts, and dried up and polluted streams provide unmistakable warnings. They should convince us that conservation must not be regarded as a sentimental hobby or harmless pastime of impractical na-

ture lovers, daydreamers, duck hunters, fishermen, and scientists. Rather, that conservation with necessary research to guide it had better be the urgent business of individuals, society, and of government.

Research in the field of fishery and wildlife management has developed a concept that we cannot successfully separate ducks, deer, grouse, trout, bass, antelope, salmon, and all of the other species of the forests and streams from their environment. Wildlife is a product of the land just as much as grass or trees, and its management is inexorably interwoven with the treatment of soils and waters.

The Pittman-Robertson Federal Aid in Wildlife Restoration Act of 1937 opened up a new and rich vein of opportunity. As predicted by its sponsors, it turned out to be the most outstanding piece of wildlife legislation enacted since the Migratory Bird Treaty Act of 1918. Through this act the 11% Federal excise tax on sporting arms and ammunition is deposited in a special fund in the U. S. Treasury. States select suitable wildlife restoration projects and perform the work on them. They are entitled to 75% repayment from the United States for money expended on approved projects.

I have been told at some of the public waterfowl meetings which we have conducted throughout the United States that the Fish and Wildlife Service personnel are anti-sportsman and anti-hunter in their thinking; that they consider nothing except absolute protection of the birds; that the Service would gladly see a complete closed season with no more hunting of any kind.

There is nothing farther from the truth than such assertions.

If we at times seem impatient it is because we continually receive a barrage of complaints and criticisms from those few individuals throughout the country who resent the restraints that prevent them from taking more than their share.

If regulations were made to suit their own ideas and their own conveniences rather than for the management of the resource, there would soon be no need to issue protective regulations. There would be nothing left to protect. **

SHADOW IN THE WOODS

Rare, but real . . .

the black wolves of Texas

by ARTHUR F. HALLORAN, biologist, U. S. Fish and Wildlife Service

ARE THERE REALLY BLACK WOLVES IN TEXAS? You bet there are! And we can tell you where to find them. For a quick look-see, glance at the accompanying county map of Texas. There, mainly in northeastern Texas, you find the stronghold of the black wolf. What is the background of this timber-loving native with heavy slashing teeth and a coal-black hide?

Let us start, to differentiate, with the great gray wolf—also called the buffalo wolf or lobo. On the high, rolling plains and mountains of West Texas, these efficient killers preyed on the buffalo millions. When the bison were eliminated, the lobo turned to cattle. Before barbed wire was common, many an unseen battle was fought between a thoroughly aroused longhorn cow, protecting her calf, and these proud hunters of the plains. As cattle became a major industry, the big lobo or timber wolf was largely eliminated from Texas.

Traveling east across the Lone Star State to the Edwards Plateau country, you run into the home of the red wolf. The lighter-built red wolf ranges from central Texas east to the Louisiana line and on to the Atlantic Coast.

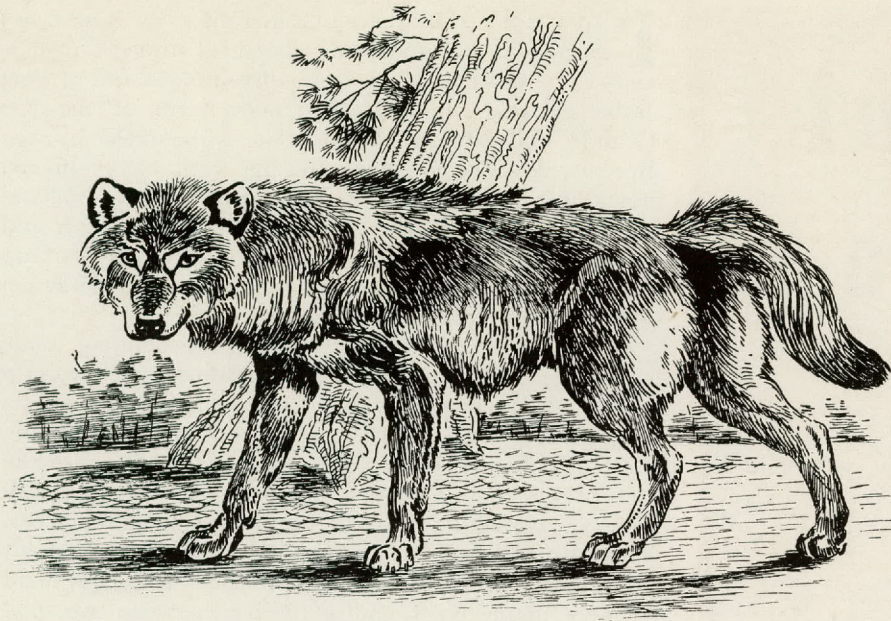
This hard-running Texan shares the western edge of its range with the smaller coyote, which claims the western half of Texas as its own. The red wolf is between the size of the buffalo wolf and the coyote. In parts of its range it throws black pups; these are the black wolves of Texas. Strangely enough most of the black wolf records come from the East Texas timber country or the Blackland Prairie. Our records also show that except in Clay County, which lies hard against the Red River, all our black wolves were found east of the 30-inch rainfall belt. The reason for this is not entirely clear. However, the black ones seem almost always to be found where there is timber interspersed with open areas. And Texas timber is sparse in the West where there is less than 30 inches of rain in an average year. In fact, old trappers still call the red wolf a "timber" wolf even though the traditional name "timber wolf" is another name for the lobo. While studying the black red wolves of Oklahoma, we find that all of these animals were taken in or near oak timber.

To find where these rare wolves range in Texas is a rough problem. We solved it by going to the men on

the ground, the hunters. Each trapper knew exactly when and where he had snared a black red wolf. District Agent Milton Caroline of the Division of Predator and Rodent Control, in the Fish & Wildlife Service, U. S. Department of the Interior, asked his men for black wolf records. The response was terrific. Information poured in from 22 counties. In addition to Agent Caroline, Assistant District Agents Hinton Bridgewater of Kingsville, James E. Poore of College Station, and Johnny W. White of Fort Worth were most helpful. Hunter Floyd L. Willis sent in a picture of a black wolf together with the report that he took two black wolves on the T. N. Perry ranch in Rusk County in 1957.

Trapping black wolves can be quite an adventure. Stanley P. Young, well-known wolfer and author of *The Wolves of North America* wrote that 25 years ago he saw a black phase of the red wolf captured in the Piney Belt of eastern Texas. (He adds a sidelight: "This incident left a vivid impression on me for I camped at the time with a hunter, resulting in my getting bedbugs, fleas, ticks, and chiggers on me all at one time.")

Dr. William B. Davis, internation-



Illustrated
by WALTON CUDE



ally known mammalogist at Texas A & M, contributed his red wolf records to us. The 28 counties marked in red are records of normal-colored red wolves taken in Texas. These locations are recorded either from specimens in the Texas Cooperative Wildlife Collection at College Station or from Mr. Young's classic, *The Wolves of North America*.

Normal phase red wolves range not only in East and Central Texas but have an outpost out in Pecos County. They are also recorded in some of the counties marked in black for the dark phase. Doubtless there are or have been red wolves in practically all East Texas counties.

These wolves get big. Records of the Aransas National Wildlife Refuge on the Blackjack Peninsula in the Coastal Bend reveal that four wolves taken there 20 years ago averaged 50 pounds apiece. One specimen weighed more than 60 pounds. We saw the hide of this big one tacked to the barn door at the Aransas Refuge patrol station. It sure covered a big piece of that door!

Another interesting point about red wolves is their relationship to the

coyote. They look like a coyote, but are redder on the ears, muzzle, and flanks, with a dark cross on the shoulders. The experts look at the teeth and the skull. Old trappers will measure the nose pad. If the nose pad is over an inch across, the chances of your catch being a wolf are very good. Weight is a doubtful point at times. Female red wolves sometimes barely touch the 30-pound mark. The coyote reaches this mark and sometimes exceeds it. The heaviest coyote known to us tipped the scales at 48 pounds.

One of the best explanations of coyote-red wolf differences is found in a letter from the famous biologist, the late Major E. A. Goldman to James O. Stevenson, former refuge manager of the Aransas Refuge. He wrote, "Typical red wolves and typical coyotes are easily distinguished, but there are some specimens from near the western edge of the range of the red wolf which approaches coyotes so closely in size and other characters, that they are not easy to separate."

Hunter Johnny White wrote of black wolves, then added this bit of information, "It may be of interest

to know that a number of black coyotes have been taken by hunters in Foard, Wilbarger, and Wichita county areas, within the past 12 years. They do not have a white spot on the chest as does the black wolf. They also have a more slender body and smaller feet and legs than the regular coyote. From statements of people that run hounds, they are also harder to catch.

Black coyotes are very scarce. With the exception of this report, we have heard of only one other black coyote.

The situation can get complicated too. Sometimes a coyote will cross with a black dog. The offspring can be coal black. In some cases an expert has to be called in to settle the parentage of the black beast that is caught.

There are still little known facts about, not only the black red wolves, but all of the Texas red wolves. If you see one of the black ones consider yourself fortunate. They are a rare part of your Texas heritage. **

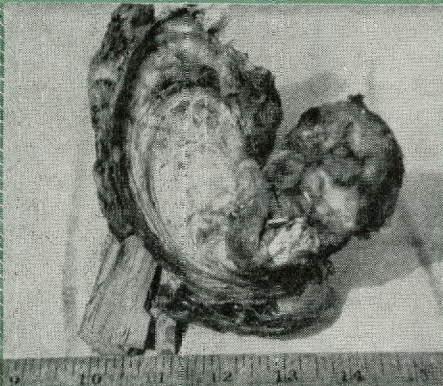
The author wishes to take this opportunity to thank every one of the men who helped bring these records together. To list them all would take more than the allowable space.

Tropical Gamble

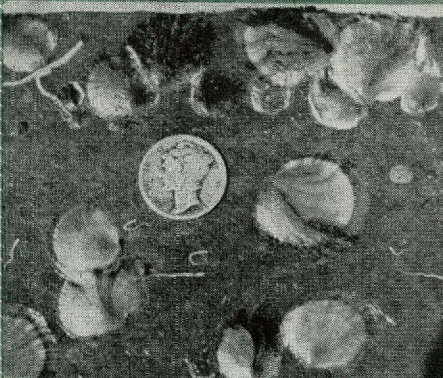
by JOE BREUER
marine biologist



Author collects oyster samples from South Bay showing condition, activity, and growth.



This oyster is unusual for South Bay; most are narrow and sometimes 9 inches long.



Asbestos siding planted in bay indicates good spawning and successful spat about mid-August.

IN OUR MOST SOUTHERN BAY IN OUR MOST SOUTHERN COUNTY an unusual breed of oysters struggles to live, against tremendous odds. Some three miles south of Port Isabel, Texas, and only five miles north of the Rio Grande and Mexico, South Bay is bounded by the Brownsville Ship Channel and its spoil banks to the north, Brazos Island to the east, and by the low-lying sand and mud flats of the mainland to the south and west. Prior to the dredging of the Brownsville Ship Channel, this body of water was a part of the Laguna Madre, but it is now a bay in itself.

South Bay, despite its pretty tropical-sounding name which suggests palm trees and blue waters, is not a pretty bay at all. In fact, it is about the sorriest excuse for a body of water in the whole state of Texas. Comprising some 2,500 acres, South Bay, since the dredging of the Brownsville Ship Channel, has been reduced in depth from an average of about 4 feet to less than 18 inches. Since the closing of Boca Chica Pass, it has been without adequate water circulation, its only opening being a small entrance at the north end of the bay between two spoil banks. The encroaching sands of Brazos Island are carried into the bay by the prevailing southeast winds. Frequent dredging of the ship channel periodically covers the entire bay bottom with soft mud.

The bay looks as if it might produce a few fish or shrimp, but certainly not oysters. Because of the soft mud bottom and the prevailing winds, the water is so turbid as to resemble a cup of strong coffee to which too much cream has been added. Because of its shallow depth, water temperatures change rapidly from extreme highs to intense lows. The bay, because of its inadequate circulation, is little more than a stagnant slough. Salinity of the bay remains steady at from 32 to 42 parts of salt in each 1,000 parts of water, which is too high for oyster survival, much less successful spawning and spatfall. None of these conditions is good for oyster production. Besides, oysters have been harvested from South Bay since the coming of the white man, but no oyster shells have been returned to the bay to start new oysters. In spite of all that man has done to destroy South Bay, these unique oysters continue to survive.

Much has been written about Texas and Gulf Coast oysters, but the South Bay oyster, which is the same species as that which is harvested commercially all along the Atlantic and Gulf Coasts, has developed into a new physiological race of oyster which prefers not to follow the written rules which man has made for oysters to follow.

Most oysters grow on reefs or beds of dead shell, but the South Bay oyster grows either in clumps or singly on the mud bottom. Instead of being harvested by dredge or tongs, they are found by wading and are picked up by hand. Their growth is rapid, due in part to the long season of warm weather. The shape of the shell tends to be long and narrow, caused by the necessity of the oyster to grow upward rapidly to escape the silting bottom. This growth is so rapid as to produce a commercial oyster in less than one year. The ability of this oyster to tolerate high salinity, rapid temperature changes, as well as great ranges in temperature and high water turbidity is still a mystery.

Then, too, the South Bay oyster defies the traditional season for eating. In all other areas of the Texas and Gulf Coast, oysters are most sought after during the winter months when they are at their fattest and not eaten during the summer months when spawning has left them poor and weak. Oyster spawning occurs in South Bay to some extent throughout the year so that a percentage of the oyster population is edible at all times. In fact, the majority of the commercial harvest of South Bay oysters is not in the winter months at all, but during the summer when other Texas and Gulf Coast oysters are not available.

The writer is not an oyster lover, preferring his seafood gutted and gilled before eating, but those in the Rio Grande Valley who seem to know have nothing but praise for the flavor of the South Bay oyster, believing it to be of superior flavor to its Chesapeake Bay cousin.

Much credit must be given to this marine organism which is supposed to be completely unable to adjust itself to adverse changes in its environment, even so much as to be unable to leave it unassisted.

In spite of the presence of the oyster in South Bay after years of the most adverse conditions, the South Bay oyster appears to be doomed. Each successive dredging of the ship channel and resulting dumping of spoil into the bay smothers most of the existing oysters under a blanket of mud. Each year, due to this dredging and lack of water circulation, South Bay grows progressively more shallow, and no oyster can survive when completely out of water. Oysters are taken commercially by only two small concerns at this time. The amazing thing is that these oysters have survived as long as they have.

While it is hoped that efforts to alleviate the adverse conditions in South Bay will be successful, another effort is being made to save the oyster by simply moving it out of the doomed area into a more favorable home.

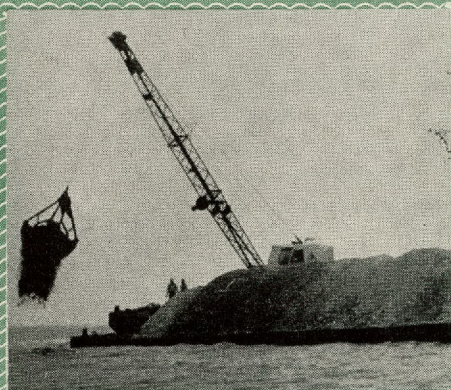
In April of 1958, six quarter-acre sites were located in Port Isabel Bay in the lower Laguna Madre. Onto each of these sites was spread 300 cubic yards of mud shell to form a bed for the proposed oyster reefs. The following month, Reefs 2, 5, and 6 were seeded, each with 200 bushels of seed oysters taken from Port Isabel and South Bays. (The locations of these six reefs were shown on a chart in an article entitled "Sea-Going Signposts" in the March, 1959, issue of TEXAS GAME AND FISH.)

The purposes of this experiment were many. First of all, assuming that South Bay was doomed to extinction insofar as the production of oysters was concerned, would it be possible to move these oysters into an area where the two main detriments to the oyster, lack of water circulation and siltation, were not a problem? The six chosen sites for experimental reefs are in comparatively clear, silt-free waters of 5 to 8 feet in depth. Water temperature range is not as great as in South Bay, and there is an adequate circulation of water. The bottom is solid enough to support the reefs. Salinity in the new area is about the same as that in South Bay.

Another reason for this experiment was to attempt to change the shape of these oysters. In South Bay, they tend to grow on crowded clumps of long, narrow oysters.

• Continued on page 29

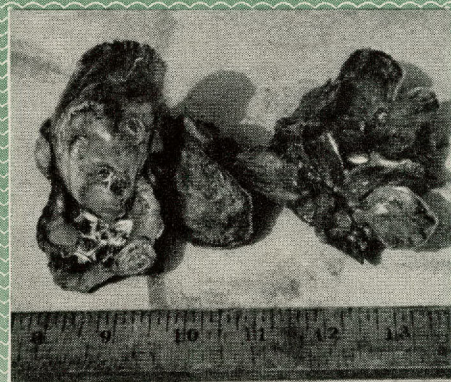
Sturdy oysters at the crossroads



Mud shell was barged to Port Isabel for six experimental oyster reefs in Laguna Madre.



Boat Captain Walter Laney spreads part of 600 bushels of seed oysters on three reefs.



Oysters taken from new reef in September, '58, show size range of a long spawning season.

Outdoors with Uncle Sam

by ROBERT G. MALLERMANN

wildlife biologist

AT A MILITARY INSTALLATION SOMEWHERE IN Texas, a new offensive was underway. The time was 0500 hours, date 16 November 1958. G. I. Joe had signed in and had taken his instructions. His objective on this day, however, was recreation.

At 5:30 the loud speaker announced that loading into the truck would take place in five minutes. Hunters were advised to present their guns to the officer in charge for a final check to make certain that no loaded guns got on the truck.

By 7 a.m. all hunters were in their blinds and waiting for their first shot of the season.

This scene took place on several military areas in Texas where big game is being scientifically managed for maximum benefits to service personnel.

Military commanders have come to appreciate the value of hunting and fishing as a source of recreation for their personnel. The cost of operating a well planned hunting program on a military installation is insignificant

when compared to the cost of swimming pools, golf courses and other recreational facilities frequently found on military installations.

The Texas Game and Fish Commission is now working hand in hand with the Army and Air Force to manage their wildlife to provide maximum benefits to military hunters and fishermen. Effective long range programs have been worked out on most Army and Air Force installations which have adequate game ranges.

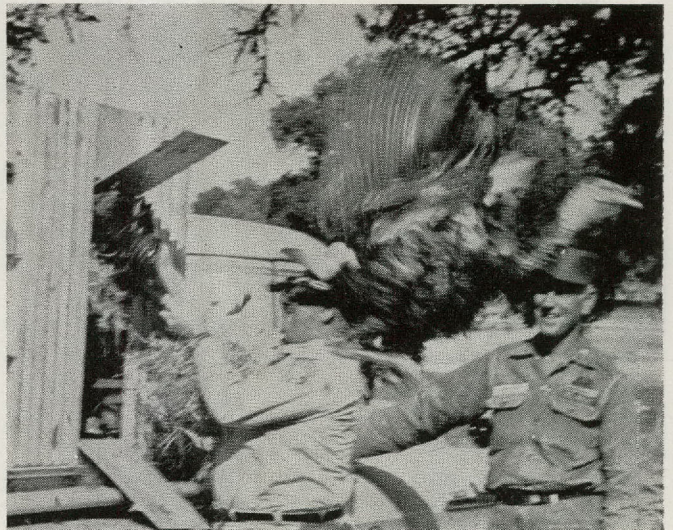
Hunting and fishing on army areas in Texas is managed by a conservation committee, a Rod and Gun Club or conservation association. Membership is not required in order to hunt on these areas although most sportsmen are members. On some installations a hunter must pass a hunter safety exam before he is issued a hunting permit. All military installations in Texas require hunters to have a valid Texas license before they are issued a hunting permit.

Army personnel have assisted in establishing census lines. They have helped biologists walk these lines to de-

Release...



First coturnix quail is released at Killeen Base by Col. Walter A. Shaw, commanding officer, and 1/Lt. David W. Bushmire in April, '59.



In a flurried blur of wings, a wild turkey takes flight at Fort Hood by E. A. Smith, Game Commission, and Brig. Gen. Howard Snyder.

Game management finds a place on military installations

termine game populations. Working together biologists and army personnel man checking stations so that accurate records can be kept on all game killed by army hunters. By making complete records and specimens available for study by biologists the Army is lending a hand in accumulating valuable knowledge of wildlife.

Requests are now pending for brood stock of wild turkeys on several military reservations where this species does not occur and where the habitat is considered suitable for the development of huntable populations. Experimental releases of coturnix quail, the Japanese import, have been made at Ft. Hood, Camp Bullis, and the Killeen base.

The G-I fisherman is also participating in these "fringe" benefits. Stock tanks, lakes and streams on military reservations are being managed and properly stocked with fish to provide him with fishing in his own back yard. On some areas additional tanks and lakes are being constructed by the engineering units as a training measure with incidental benefits to the hunter and fisherman.

At Ft. Hood the Boy Scout troop has undertaken, as one of their conservation projects, construction of brush piles for fish shelter and gravel bars for spawning beds in some of the new lakes on the reservation.

During the 1958 deer hunting season over 5,000 hunters took advantage of the opportunity to hunt on military installations in Texas. Of this number 1,139 bagged their deer. Quail and dove hunters had a fine season on some of the areas and the prospects for the 1959 season look even better.

Each fall game biologists and their crews estimate the

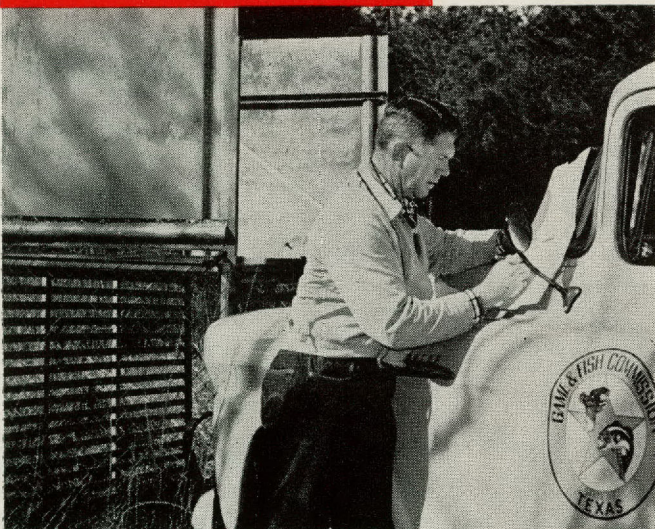
deer population on military reservations where cooperative agreements are in effect. Recommendations as to the number of game animals that should be harvested by hunters are made to the military authorities who have been designated by the Commander to formulate the hunting regulations.

Cooperation between the field men of the Game Commission and the various Army game boards, clubs, and committees has never been better. Texas and the military commanders can be proud of the tremendous progress that has been made in management and utilization of the wildlife found on military reservations in this State. **



All deer killed on the Arsenal are checked through the Game Commission's checking station located between there and New Boston.

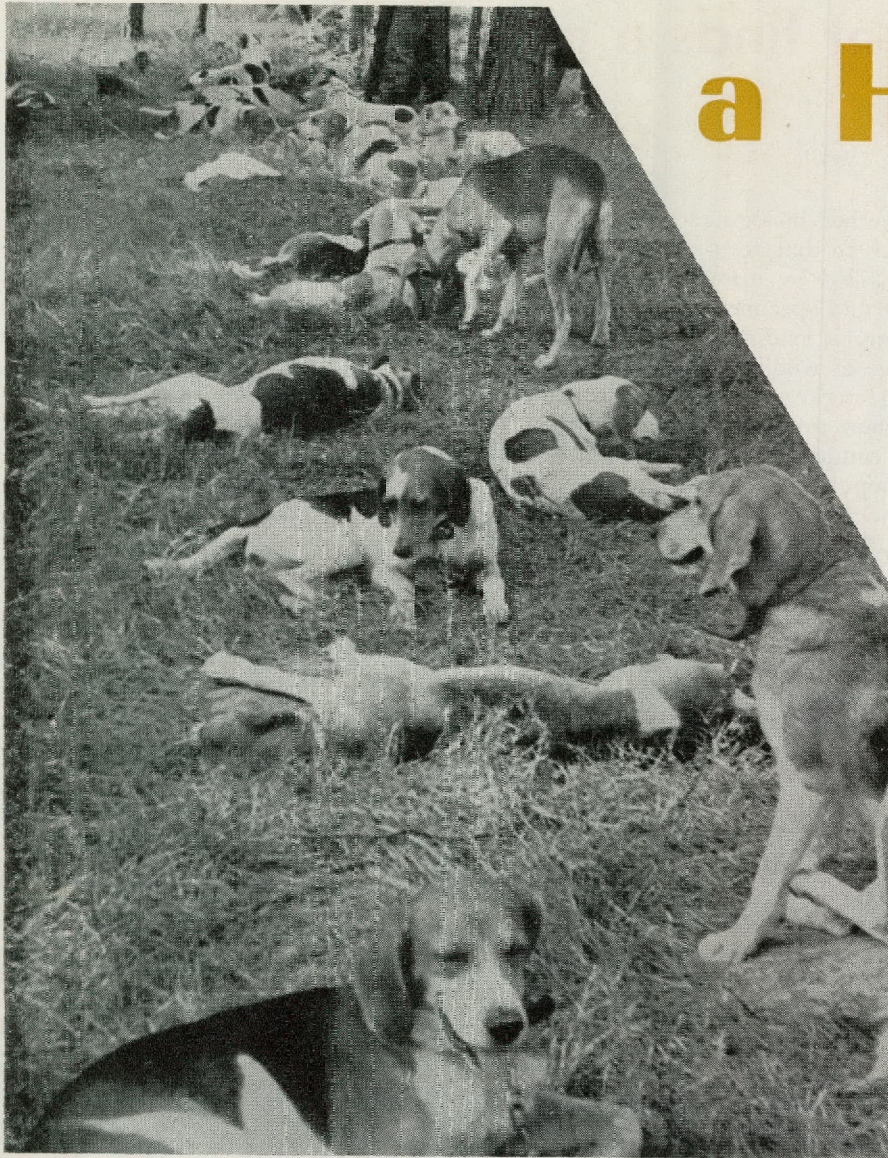
and Research



At the Red River Arsenal, John Carlisle, Game Commission biologist, keeps careful records of all deer trapped in a management study.



Personnel of Texas Game and Fish Commission tag the deer trapped during the Red River Arsenal's deer management program.



a Hounds' H

... and the fellow

of an East

by CURT

A bench show involves the display of fox hounds on benches for awards according to national rules. Hounds are judged according to their heads, bodies, running gear, coats, and tails. Those in good running condition (that is, hard and muscled out) are usually given preference.

Dr. Charles Davis, Woodville, judged the show, assisted by Ringmaster O. F. Poling of Aransas Pass. The Grand Champion of the Bench Show was Harry T., male, out of Yaupon Whiz Bain and Sun Dial Golden Glo, owned by J. A. Talley of Jewett. Beauty Ballot out of Sun Ballot and Betty Echo, owned by Tom Bridges of Henderson, was best gyp.

At 4 a.m. the next morning a high-pitched fox horn sounded through the camp, signaling everyone to arise and prepare for the field trial.

At the casting ground (area chosen for releasing the dogs) the Master of Hounds, Fred Lauber of Toronto, Kansas, and the judges checked the roll to be certain all dogs released were numbered and registered.

Then Lauber signaled to cast. In a matter of seconds, the hounds dashed out of sight into the heavy underbrush. Minutes later, a hound struck a trail and sent his bugle-tongued squall echoing through the

THE ANCIENT FOX HUNT, older than America itself, still lives in the wooded counties of Texas, with all its original excitement, challenge, and warm fellowship.

Recently, the annual Heart of Pines Bench Show and Field Trials was held near Carthage, sponsored by the Panola County Chamber of Commerce. The event lasted four days.

The first day was dedicated to setting up camp in a spot beneath a beautiful, towering group of pines huddled near a small lake's edge. That evening, when the bench show began, nearly a thousand spectators gathered. Master of ceremonies for the occasion was Dave McKinney, an old dog trader from Eagletown, Oklahoma.

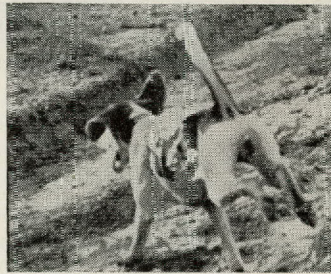
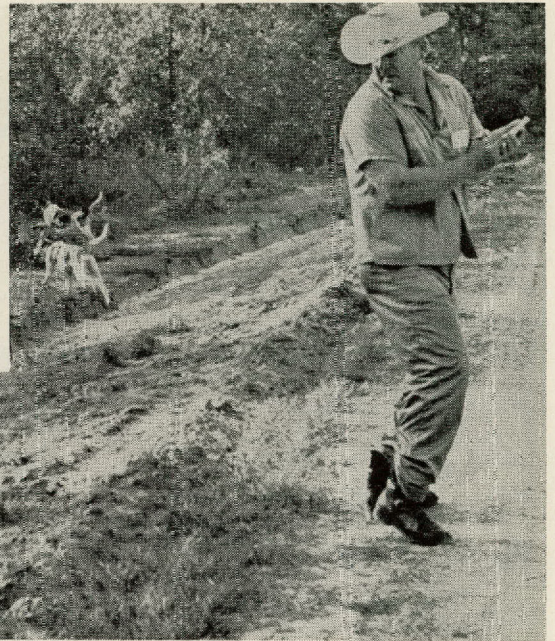
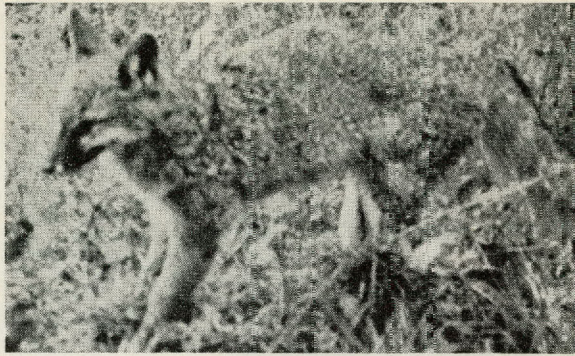
**Tallyho—
the fox!**

alloo

ip

Texas fox hunt

CARPENTER



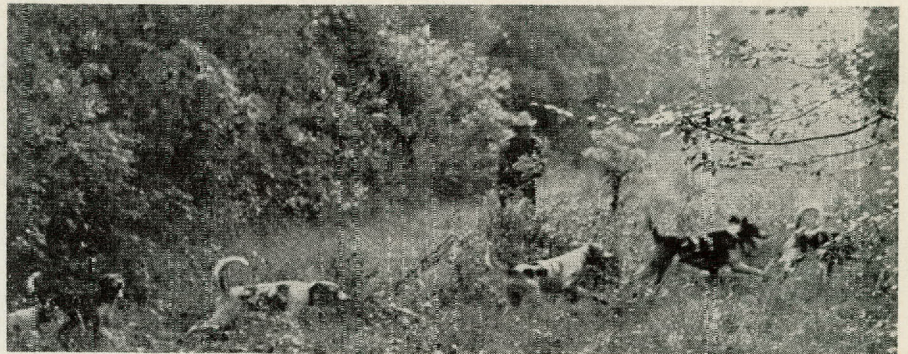
As a gray fox hustles across the field, Judge Dave McKinney scores the dogs on their drive.

still morning air. Other hounds joined in the chase, adding their mouthing to the harmony until the woods were filled with deep hollow music.

When the sun beamed over the horizon, nearly 200 dogs had separated into three packs. A few dogs never left the casting ground and were scratched (eliminated).

Only a few handlers remained at the ground with the home plate

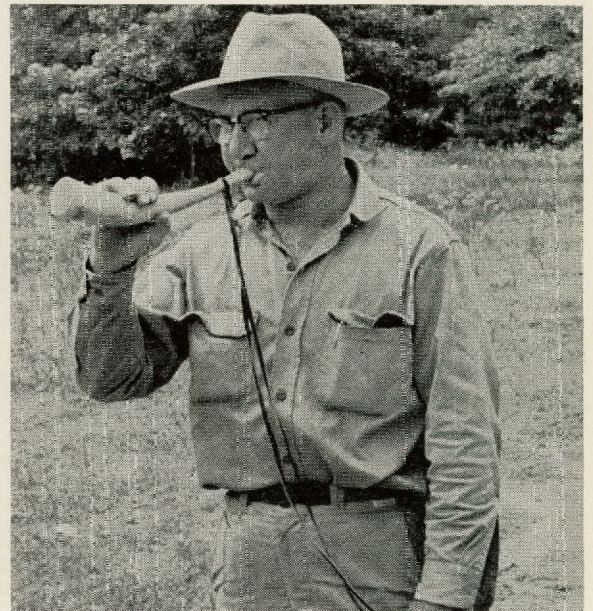
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This dog pack gave a judge a ring-side view, running a fox right in front of him.



At hunt's end the hounds are rounded up, ignoring quarry, center front.



A plaintive hunter's horn echoes through the air.

judge. Most of the hunters spread through the woods to get a glimpse of their hounds crossing a road or fire break.

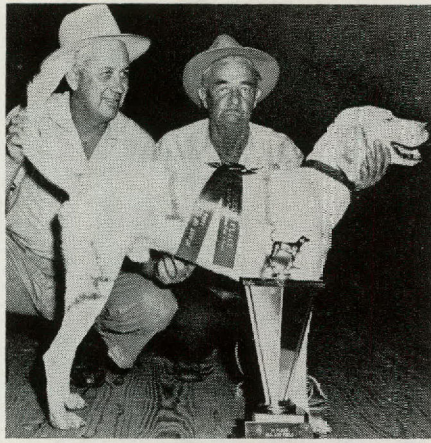
Helping the Master of Hounds were several judges who scored the hounds in the field. They took to the woods on mounts and by foot. Some of them hitched rides on the various vehicles in the area. When a fox crossed just beside them, they had to score the first three or four dogs in the pack before any others. If the judges missed these, they had to race to another crossing and attempt to get another look. No guesswork was allowed.

They noted all hounds loafing, babbling, or committing other faults. In the hound's favor, they recorded hunting, endurance, speed, and driving, and other favorable showings.

At the end of each hunt, the judges met to decide on the scoring for each hound seen that particular day. No one judge could merit or demerit any hound in any class. It took the majority vote to score either way.

No two hound squalls sound exactly alike. During the hunt, most spectators hear just a noisy pack of dogs barking, but each individual hunter can distinguish his own dog's mouth from others. An old timer can draw a mental picture of the chase by listening to the dogs' voices. He knows which hound is in the lead, how close he is to the fox, which one is second and which direction the pack is traveling.

These dogs are hobbies, animals which sometimes run in to an upper dollar scale. The average cost of a fox hound on the market today is in



All Age Grand Champ "Brown Eye Watters" was sold by A. O. Watters, left, to E. Dillard, Longview.

the \$50 range, and hunters will pay hundreds of dollars for an exceptional hound. In 1952 about 200,000 people owned some 800,000 dogs trained for hunting fox, wolves, and other popular animals. This number probably has increased considerably since that time.

Long ago, fox hunters learned that it takes an entirely different kind of hound to hunt fox in the new world from those used for centuries in Europe. The answer to this problem was a new breed of dogs, such as the Walker and July. These hounds have the speed and long wind of a greyhound, the determination and persistence of a bulldog, the sensitive nose of the blood hound, and the intelligence of a champ. They don't know what it means to give up.

A pack of determined dogs may chase a single fox for hours on end. Red fox is probably the longest winded small mammal alive. This day, however, the hounds were after

gray fox, fast, but not nearly as robust as the red.

The Heart of Pines hunts lasted about five hours each morning from 5 to 10 a.m. After each hunt the dog owners searched for their dogs. All hounds caught were collected and taken back to the camp grounds where they were chained. Each owner would check the chain for his hounds and remove any to his private chains that were brought in. Some hounds, because of injury or exhaustion, failed to return by the end of the day. This did not eliminate them the first day, but it did in the final cast. Several hunters were still looking for their hounds when the sun set the final day.

As the event closed, participants agreed that it had been a big success. The area was ideal for chasing, the weather had been perfect, and some fine hounds had been entered. Fox were plentiful and the trails were strong because of the moist grass and soil. The Association decided to return next year to the same area, owned by rancher W. C. Furrh, and possibly make it the permanent location for the Heart of Pines Ranch Show and Field Trial.

It was a great get-together, hosted by the Panola County Chamber of Commerce and the International Paper Company. The hunters were happy. They had achieved what they came for—not the kill, as in many sports, but the chance to listen to the hounds in chase, to test the skills of their individual dogs, to camp out, and most of all, to enjoy companionship and sportsmanship of their fellow hound owners. * *



Tops in All Age Combination was "Sonny Ballet" shown by owner Tom Bridges of Henderson.



Derby combination winner was "Linda Bridges" owned by Mrs. J. A. Talley of Jewett.



First place in the derby was taken by "Joker," owned by Casey Pearce, Richmond Springs.

Duck callers exhibit . . .

the Skillful Squawk

. . . for the Southwest Regional Championship

by THERON D. CARROLL

A LARGE GROUP OF DUCK CALLERS and other waterfowl enthusiasts gathered Saturday, October 24, at the South Texas State Fair grounds in Beaumont for the Southwest Regional Championship Duck Calling Contest.

Champions and other entrants from Louisiana, Arkansas, New Mexico, Oklahoma, Mississippi, and Texas were on hand to try for the top prizes of (1) a \$500 U. S. Savings Bond; (2) a \$200 U. S. Savings Bond; and (3) a \$100 Savings Bond.



Making a bit of duck music together is a trio of winners: James Fernandez, Groves, left, second place; Raleigh Newman, Lake Charles, Louisiana, first, and Albert Johnson, Groves, third.

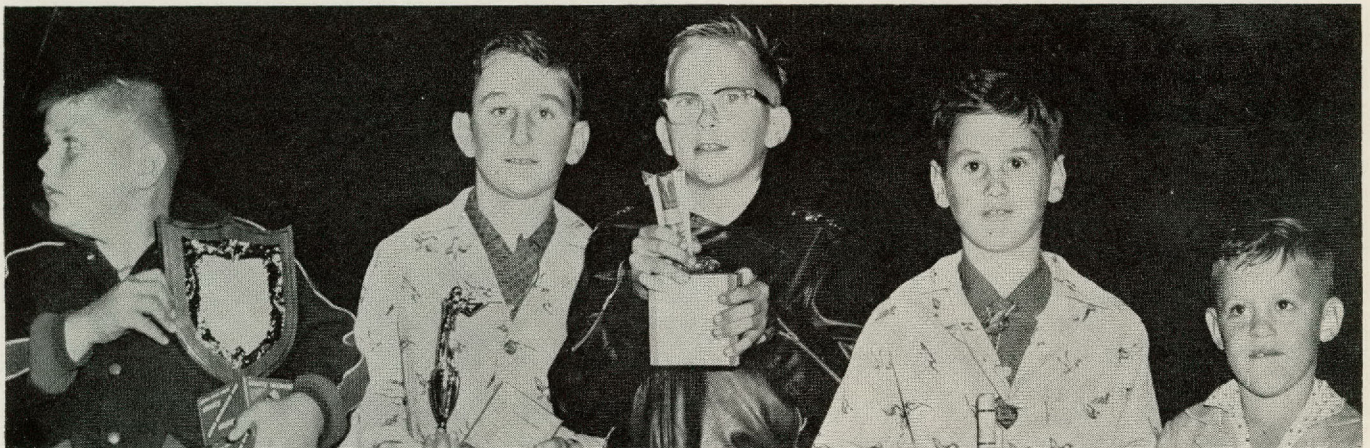
Raleigh Newman of Lake Charles, Louisiana, won top honors in a closely contested event that saw ties for three places requiring extra calling to decide the winners.

James Fernandez of Groves, Texas, winner of the Gulf Coast Championship in Port Arthur on October 17, was second, and Albert Johnson also of Groves won third place.

In the junior event, Mike Cheney of Groves was first with John Conerly of Groves, second, and Ronald Stepan of Port Arthur winning third.

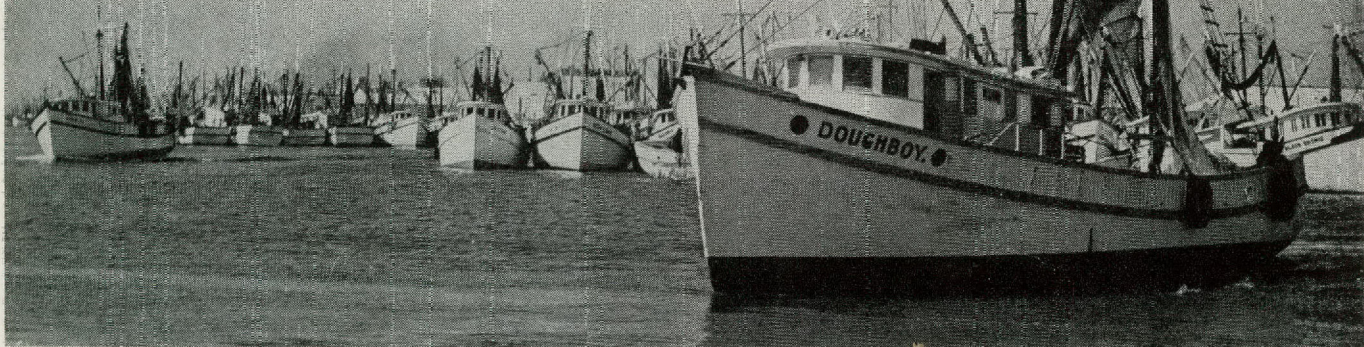
In addition to the trophies and savings bonds for the top winners, prizes of game calls, shotgun shells, hunting coats, and other valuable paraphernalia for the hunter were awarded.

**



Junior champs were Mike Cheney, 1st; John Conerly, Ronald Stepan, (Leo David Foreman, absent), Kenneth Johnson, and Gregory Johnson, Jr.

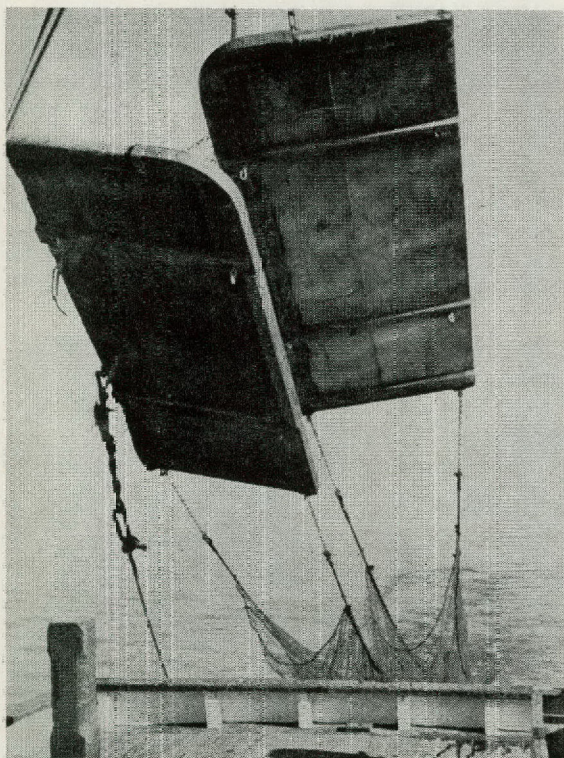
Jumbo Size, please



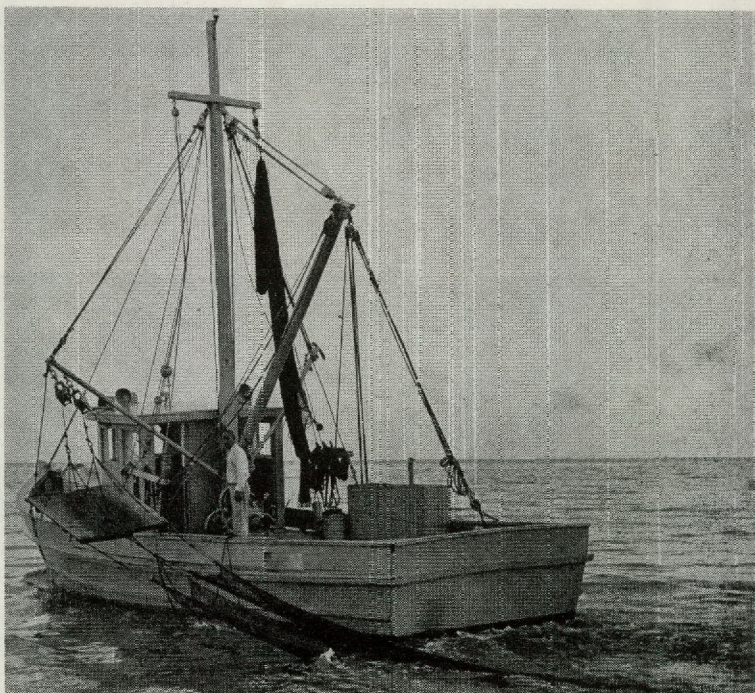
... a look
at the shrimp industry

NEARLY 70 MILLION TONS OF SHRIMP are scooped from the Gulf floor each year to make the shrimping industry number one in commercial fishing for all of Texas.

Thousands of men challenge the Gulf's restless waters to catch these shrimp and provide for their families. Like



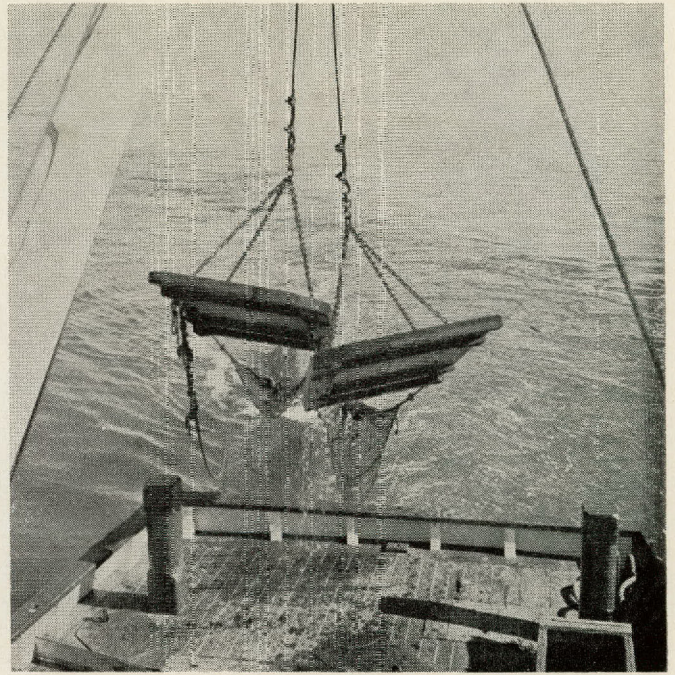
The boards are bridled to slice out and down. The front lower corner is rounded to slide over the bottom.



The trawl tail, or sack, is lowered first, then the boards, or doors, to spread the net on bottom. Shrimp are scooped up and funneled to the sack.



The entire lifting and lowering operation is controlled by this winch in the hands of an experienced operator.

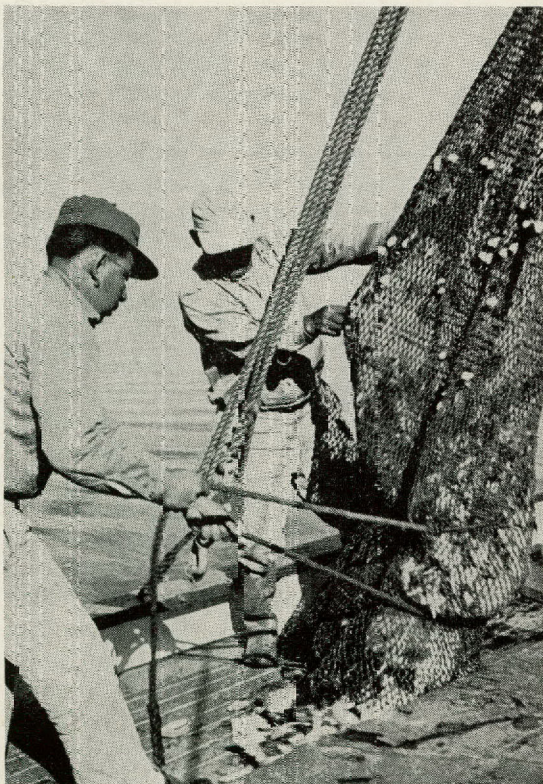


On the retrieve, the doors hold the net open until above surface. In open seas, these doors must be secured to prevent heavy damage.

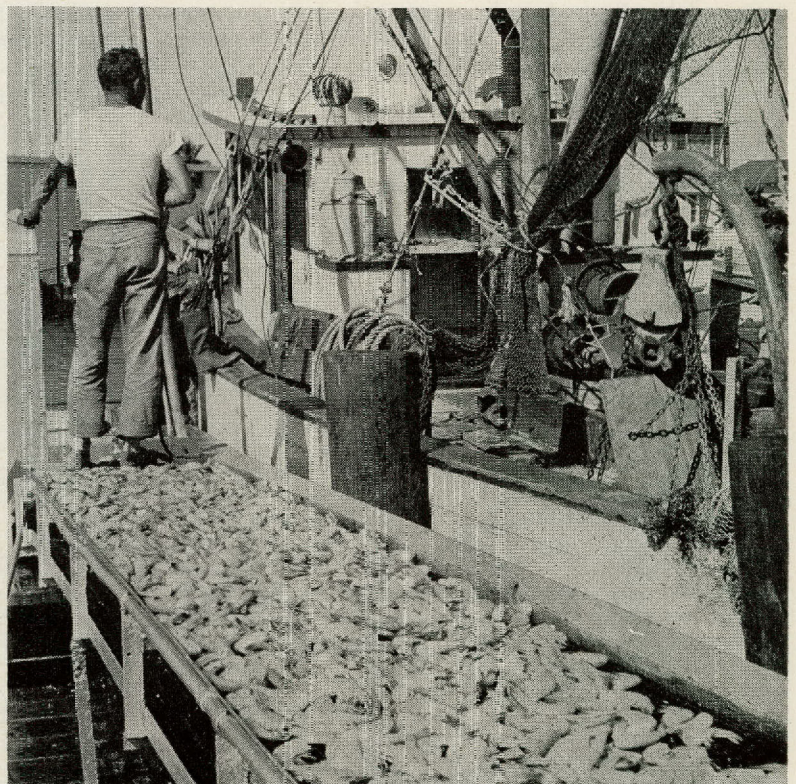
many another industry, shrimping has grown from a once small unrecognized business into a giant production.

Harvesting the crop before it had fully matured nearly sent shrimp markets, boat owners, and crews into bankruptcy. To save the industry, new limits and closed sea-

sons were designed this year and put into force. Now young shrimp may find the time and a place to grow, and when the waters are once more opened, fill the nets, repaying those involved in the shrimping industry double for their patience. **



A line fastened just above the load lifts the sack onto deck where it is dumped.



Headed shrimp are unloaded into troughs, then transported to waiting trucks or vaults and to the markets across the country.

Gulf Get-to-gether

by DUDLEY GUNN
photos by L. A. WILKE

“ONE OF OUR MAIN GOALS IN TEXAS is to encourage and stimulate industry and recreation, which is itself an industry, without unduly harming either by ill-advised or narrowly-conceived legislation.” With these pertinent words, State Senator Bruce Reagan welcomed the Gulf States Marine Fisheries Commission to Corpus Christi, where they were holding their 10th annual meeting on October 15.

“Conservation Begins At The Shoreline,” was the subject of a paper prepared by Assistant Secretary of the Interior Ross Leffler and which in his absence was read by Richard Whiteleather of the Bureau of Commercial Fisheries. Concerning the estuarine areas, Leffler pointed out that to the uninitiated, marshlands appear to be of little value to man, and their reclamation seems to be in the public interest.

“However,” he said, “to those who hunt, and to those who fish—both for

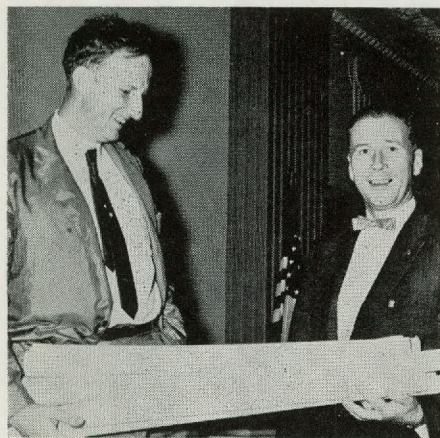
fun and for profit—these marshes are the very fountainhead of valuable marine fish and wildlife resources that afford income and recreation to many of our people.”

The total landed value of estuarine commercial fishery resources may be conservatively estimated at \$150 million, and their retail value is probably two or three times this amount. On the Gulf Coast alone, an estimated 100 million pounds of edible fishes are caught by sportsmen each year. Coastal marshes and associated estuarine waters along the Gulf furnish preferred wintering habitat for wild ducks, wild geese, and other migratory birds, Leffler observed. These wetlands play a dual role for which by nature they are peculiarly well fitted—to sustain continental waterfowl populations, and at the same time provide areas wherein these birds may be hunted under appropriate regulations. Development of new industries and the spread of residential and urban areas are necessary to accommodate the needs of a growing population. However, industrial development and marine resources can exist side by side without significant effects, one upon the other, if proper precautions are taken. Secretary Leffler urged the expansion and intensification of studies of the lives and habits of the marine organisms that inhabit the marshlands and estuaries in order to understand the effects of human activities upon them.

Commissioner Harry P. Burleigh addressed the group on “Plans And Purposes Of United States Study Commission—Texas.” As a member

of the Study Commission for Texas from the Department of the Interior, he said it was his task, with others, to help establish an enduring water supply and control program for the State of Texas. Implementation of such a program will undoubtedly have an impact of some nature on the estuarine areas along the Texas Gulf Coast and it is proper to discuss the matter in order to enable those qualified to evaluate such impact to integrate their knowledge into Study Commission plans at an early stage of the game. A State water plan, Burleigh said, is one more inevitable encroachment of civilization upon marine life, but it need not be heedless. He said that in view of the magnitude of the industry dependent upon estuarine life it is unthinkable that Study Commission plans—which will undeniably affect rate of fresh water inflow to the Gulf—evolve without an awareness of all factors involved.

Dr. James B. Lackey, Department of Civil Engineering, University of Florida, spoke on the subject: “Shellfish and Radioactivity.” About 18 months ago, he said, a discussion was held with some U. S. Public Health officials relative to the wastes from nuclear powered submarines and ships. As a result, the Department now has a four year grant-in-aid to study the normal radioactivity, uptake, retention and effects of radioisotopes on shellfish, crabs, and shrimp. Dr. Lackey stated that the program had been under way only nine months, but the literature survey and the initial work had already



Holding study maps of the Gulf are Dr. Harold Odom, U. T., and Dr. Wm. Rae, A&M.

Marine fisheries are scrutinized

by Compact Commission states.

indicated a whole complex of problems to be solved. First considered was the assessment of shellfish radioactivity due to natural causes; secondly, sources of added radioactivity were discussed. Also mentioned was the fate of radioisotopes in the sea and dangerous levels in shellfish for human consumption.

"There is always a natural radioactivity in shellfish due at least in part to potassium 40," said Dr. Lackey. Shellfish are filter feeders and therefore will ingest radioactive microorganisms from bacteria to much larger organisms. They then acquire radioactivity, at varying rates and amounts, depending on amounts available and other environmental factors which affect uptake. Manifestly we need to know a great deal more than is currently on record about how nearly shellfish approach maximum permissible levels, and such investigations are under way."

Commission Chairman Howard D. Dodgen, who was unable to attend the meeting due to illness, had prepared a report which provided information on the compact Commission's formation and purposes. A resume of accomplishments over the initial decade of Commission work was incorporated in the report. Proposals of the Texas Game and Fish Commission regarding shrimp conservation measures, which were presented to the last session of the Legislature, and which were accepted in part, were discussed.

The report contained these comments concerning the estuarine areas: "Since about the time of the creation of the Gulf States Marine Fisheries Commission, the member states have been experiencing the greatest economic growth in all their history. This eruption of social and commercial status has no end in sight, and no doubt will continue until full sat-

uration of the use of our natural resources has been reached. Some of these changes have a direct or indirect adverse effect upon our marine resources. Our task will be to do all possible to see that the improvements in commerce and industry are carried out so as to do minimum harm, or no harm, to the valuable marine resources of the Gulf." Howard T. Lee, director of the coastal division, Game and Fish Commission, Rockport, Texas, read the report.

Introduced were: W. L. Holland, Alabama; R. M. Ingle and H. E. Wallace, Florida; L. S. St. Amant and T. B. Ford, Louisiana; W. J. Demoran and C. A. Schultz, Mississippi; and H. T. Lee and H. T. Odum, Texas. Each of these members of the Commission's Estuarine Technical Coordinating Committee presented a summary intended to point up such additional information as is needed on the estuarine areas of the Gulf and their contributing watersheds.

Reporting on a meeting of the Shrimp Marking Committee, which laid plans at the Rockport Game and Fish Laboratory October 14 for a five-state program for the color marking of shrimp for migration and

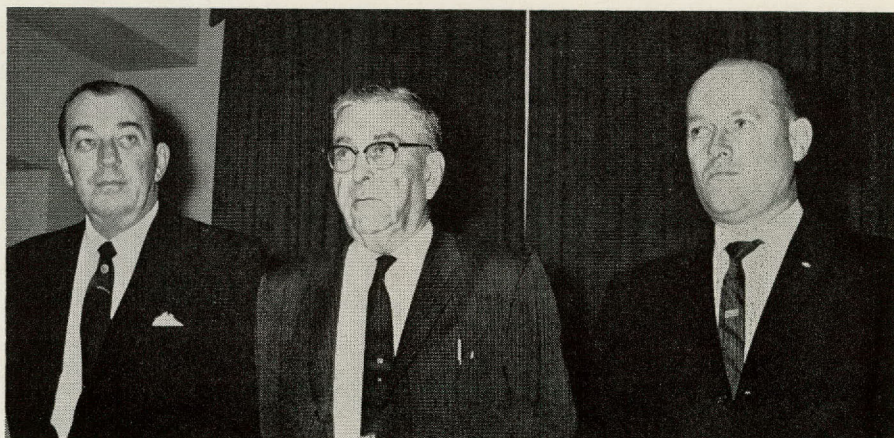
mortality studies, was Dr. George Rounsefell of the Bureau of Commercial Fisheries, Galveston.

Harvey R. Bullis, Jr., Bureau of Commercial Fisheries, Pascagoula, Mississippi, reported on a project designed to study the underwater action of shrimp trawls through means of motion pictures taken by SCUBA divers, and showed pictures recently made off Panama City, Florida.

A scientists' session was held October 16 while the commissioners met in executive session. At the executive session, a resolution was adopted which concerns the application of quotas on shrimp imported from foreign countries.

Commission Vice-Chairman Hermes Gautier, who presided at the meeting in the absence of Commission Chairman Howard D. Dodgen, was elected chairman for the ensuing year. Commissioner Walter O. Sheppard, Fort Myers, Florida, was elected vice-chairman.

It was voted to hold the eleventh annual meeting, October 20-21, 1960, at St. Petersburg Beach, Florida. The spring 1960 meeting is scheduled for March 16-17 at Mobile, Alabama. **



New officers of the Gulf States Commission are Dudley Gunn, left, executive secretary, Louisiana; Hermes Gautier, president, Mississippi, and Walter O. Sheppard, vice president, Florida.

GUNS

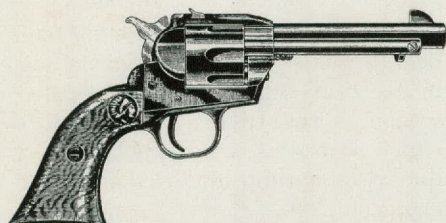


... and Shooting

This Month: Hand Gun Parade

by L. A. WILKE

AHAND GUN NEVER CAN BE RECOMMENDED FOR HUNTING. The hand gun definitely does have a place, however, which deserves a great deal of commendation. As a practice gun for plinkers or for serious target work it provides a lot of pleasure, to say nothing of improved accuracy with shoulder guns.



Savage Single Shot

For the most part hand-guns went out with the Indians. A few pistol clubs kept them in manufacture, along with semi-automatics used by the military and the defensive arm of peace officers.

Then in World War II the little .30 caliber carbine took the place of pistols in most battles. The domestic market declined to a point where it was no longer profitable to make many of the models.

Early-day pistols became collectors' items and brought high prices. It was almost impossible to get such fine old guns as the Colt single action, because Colt had quit making them.

Then television came with an abundance of Westerns. The cowboy came onto the screen with his single action six-gun. Immediately a new craze spread. Ruger and Hi-Standard came out with single action copies of the old Colt. They did so much business Colt resumed its manufacture. Now you can buy them on the open market.

Even mail order houses began marketing .22 caliber copies of the single action under their own name. As a

result, today the pistol has made a comeback.

The latest addition is a new Savage single action, single shot. In all appearances it is about the same as the other single action guns. Instead of a Colt on the grip, there is an Indian head, replica of the Savage.

Savage is an old line manufacturer of fine hunting equipment. In years gone by this company made a .380 automatic, along with several other models, that was a very excellent gun. It was discontinued, however, when the demand slumped.

This new single action is strictly for target shooters. Being a single shot it provides additional safety for the young shooter. It also has the appearance of a good gun, which will appeal to the young idea learning to shoot.



Crossman 22 caliber Single Action Six

It has its place for plinking at tin cans or shooting rabbits. And most any man or boy who can shoot a pistol accurately finds it a great deal of help in shooting a rifle much more accurately.

Although powder-burners have more killing power they are having a hard time keeping pace with the sales of the new gas operated .22 calibers.

Recognizing the advance of the fast-draw artist, P. Y. Hahn, president of the Crossman Arms Co., announced his version of a CO² pistol. This is a single action revolver that feels exactly like the old Colt single action. Built to sell for less than \$20,

this gun with a precision rifled barrel will group .22 caliber pellets within an inch at 25 feet.

This kind of accuracy permits both dad and junior to compete on the pistol range.

There is no recoil and no smoke from these guns, making them ideal for basement or garage target practice.

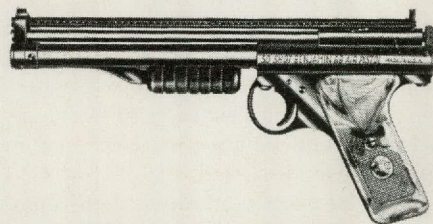
Crosman also produces the Hahn "45" BB revolver for juniors.

Both guns are ideally balanced for fast draw and accuracy. They also balance well for fancy handling and twirling. With their shooting economy and the boost given by TV shows, these guns are very popular with shooters.

Target traps are available to be set up either in the open or basements where practice can be done by all members of the family.

In fact, family-wide pistol shooting is very excellent training for both boys and girls. It is a chance for Dad to teach safety and caution to young shooters.

Still another pellet gun in this same category is the Benjamin. This gun more nearly represents the Colt automatic. It comes in models for gas or



50 Shot Benjamin BB Air Pistol

compressed air, to shoot either BB shot or .22 pellets.

Again, shooters should be warned that these guns are not intended for serious hunting. They are excellent for target practice and should be used

● Continued on next page

Steaks Galore from Banks Offshore



SALT WATER HEAVYWEIGHT—This 144-pound wa'saw was caught on a shrimp by Dr. L. D. Lynch of Tyler, left fishing off the snapper banks near Freeport. Captain Paul Davenport, right, of the Sunrise piloted the boat.



It Happened This Way . . .

Two wardens who had received calls of illegal hunting at night were watching a slow-moving car, creeping down the road with no headlights on. A shot sounded in the woods nearby. When the wardens stopped the suspect's car, they found only two women, without guns. Certain they were associated with the poachers, the wardens got in the back seat of the car and instructed them to drive again, just as they had before, back to the place where the shot had been fired. After about three minutes, a couple of hunters sprang from the bushes by the road, flung open the back door of the car with a shout to "Get going, fast!" and hopped right in the wardens' laps, complete with hunting guns. Then the wardens rounded up the rest of the evidence, dead deer, and filed suit.

Guns and Shooting

• Continued from Page 24



Sears 9-shot 22 Revolver

only for that purpose. Because of their power and accuracy many small birds, rabbits and rodents are killed with them.

And while they are considered inadequate for general hunting, it must be warned that they possess sufficient power to be dangerous when shooting carelessly. They'll break out a window, and easily could kill or permanently maim a person if hit in the right place. * *



This 63-pound yellow catfish makes a near boatload for Mrs. Jay Vessels, who caught it on a trotline set in Lake Austin last Mcy. Mrs. Vessels has in the past appeared with two other catches—one a 23-pounder, and the other weighing 46 pounds.

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.....

the Cook Takes Over

. . . when the sportsman

returns with the goods.

FROM HUNTER'S GEAR when a sportsman heads for the field to cooking ingredients when he gets back, there's a little bit of everything in "The Outdoorsman's Handbook and The Care of Wild Game and Fish for Trophy Preservation and for Food," by Frances Bell Jackson.

Particular emphasis is given to care of skins and trophies and the do's and don'ts of meat handling in the field. Besides the helpful information, more than 100 fish and game recipes are included, some submitted by state governors. As a tantalizing introduction to the handbook, we here present a few samples.

VENISON STEW

2 lbs. venison cut in inch
1 cup diced salt pork
1 qt. water
1 cup chopped celery
½ cup chopped onion
2 T. chopped green pepper
1 T. chopped parsley
2 potatoes, diced
Flour
2 tsp. salt
½ tsp. savory seasoning
1 bay leaf

Fry the salt pork until crisp and remove it from the fat. Roll the meat in the flour, cook it until lightly browned in the fat from the salt pork and transfer to a kettle. In the remaining fat, cook the celery, onion, green pepper and parsley for 2 or 3 minutes and mix with the meat. Rinse the frying pan with the water and pour over the meat and vegetables. Add the savory seasoning and bay leaf, cover and simmer until the meat is almost tender. Stir in the crisp salt pork and the potatoes. When the potatoes are done, serve the stew hot.

ROAST VENISON WITH HERBS

Grate 1 clove garlic into 3 tablespoons salad oil or olive oil. Add ½ teaspoon dried marjoram. Let stand 15 minutes. Wipe roast with damp cloth. Rub on prepared herbs. Salt and pepper the roast. Roast in a 350° F. oven.

Cook covered until almost done. Roast 25 minutes per pound for rare meat; 30 minutes per pound for medium well done. A well done roast will take 40 minutes per pound of meat. Make brown roast gravy in same manner as used for roast beef.

DEERBURGERS

Mix half lb. sausage with lb. of deerburger, seasoned with salt, pepper and garlic salt.

Brown patties.

Add can mushroom soup and can of mushrooms.

Add per pattie—2 tablespoons of orange juice and fruit juice, mixed. Add few drops of bitters.

Simmer 20 minutes.

Mrs. W. A. Jones, Arlington, Va.

FRIED VENISON STEAK

(A Southern Recipe)

Wipe steaks with damp cloth. Melt in skillet enough drippings or fat to cover steaks. When grease is very hot, add steaks slowly, one by one. Do not allow fat to cool. When desired degree of doneness is reached, remove steaks from grease. Sear for ½ minute on each side. Serve piping hot.

Venison steaks are best when fried quite rare.

(A Western Recipe)

Score steaks well. Pound in a little flour, with dash of salt and pepper. Fry in melted butter in piping hot skillet until crisp brown.

ROAST WILD GOOSE (Requires 1 to 4 hours roasting.)

Pick and dress goose. Stuff with raw quartered and cored apples. Tie a piece of string around skin of neck, leaving two long ends. Turn wings back and pass string around them. Tie in place. Tie legs close to body and drumsticks together. Sprinkle goose with salt and pepper. Place six thin slices of salt pork or bacon over goose's breast. Place goose in a rack in a dripping pan in a 500° F. oven for ½ hour. Reduce heat to 300° F., cover pan, and roast, basting frequently until done. Uncover pan and remove pork for last half hour of roasting. If goose is young and fat no stock will be required for the basting. If not, before covering the pan add 1 cup of following stock:

1 cup water
½ onion, sliced
1 or 2 celery ribs and leaves, chopped
1 small carrot
Sliced parsley
Seasoning

SMOTHERED RABBIT AND ONIONS

Clean rabbit and cut into small pieces. Season with salt and paprika. Dredge with flour. Melt in skillet 3 tablespoons butter. Saute rabbit in butter until browned. Cover rabbit thickly with sliced onions. Sprinkle onions with salt. Pour in 1 cup sour cream. Cover skillet and simmer for 1 hour or place in a 325° F. oven and bake until tender.

*Virginia Commission of
Game and Inland Fisheries,
Richmond, Va.*

FRICASSEED SQUIRREL—4 Servings
(Cooking Time 3½ Hours)

- 1 squirrel
- ½ tsp. salt
- ⅛ tsp. pepper
- ½ cup flour
- 3 slices bacon
- 1 T. sliced onion
- 1½ tsp. lemon juice
- ⅓ cup broth
- 1. Disjoint and cut squirrel into 6 or 7 pieces.
- 2. Rub pieces with salt and pepper. Roll in flour.
- 3. Pan fry with chopped bacon for 30 minutes.
- 4. Add onion, lemon juice, broth and cover tightly. Cook slowly for 3 hours.
- 5. Variation: Add 1 tablespoon paprika, ⅛ teaspoon cayenne, 1 sliced sour apple, and 2 cups broth instead of bacon, lemon juice called for in foregoing recipe.

*Michigan Dept. of Conservation,
Extension Bulletin 252*

DUCK

If the wild flavor is enjoyed, it is not necessary to soak or marinate the dressed duck before cooking. The wild flavor may be removed, to some extent at least, by marinating in vinegar, mild wine or sour milk, or by parboiling with sliced onion and carrot added to water.

ROAST DUCK WITH RICE STUFFING

- 2 cups fluffy cooked rice (wild rice is superb)
 - Giblets, cooked and chopped
 - 1 small onion, minced
 - 3 T. melted butter
 - 1 tsp. salt
 - ½ cup minced celery
 - ⅛ tsp. pepper
- Combine all ingredients and fill body cavity lightly with stuffing.

ROAST WILD DUCK

Clean birds thoroughly, inside and out, using a small, stiff brush. Cut off tail, including the oil sac, and cut off the neck. Salt and pepper, inside and out.

Stuff with small, whole onion, stalks of celery, quarter-apples, and one clove of garlic.

Brown in 450° F. oven for 30 or 45 minutes. Pour water into bottom of pan. Baste occasionally, and turn the birds. Do not let the skin become



Winchester News Bureau

burned or crusted.

Remove from oven; pour off excess grease.

Put a slice of bacon across each bird, add a little more water to the pan, and place close around the birds slices of onion, pieces of apple and stalks of celery. Sprinkle with ½ teaspoon oregano seasoning, a teaspoon of ground parsley, salt and pepper.

Cover pan tightly, bake in a 300° F. oven or simmer on top of stove for 1 hour, 20 minutes, or until tender.

Serve with a casserole of wild rice and a green salad.

*Mrs. Goodwin J. Knight,
Wife of the former Governor
of California*

DUCK WITH FLORIDA ORANGE SAUCE

- 1½ lb. drawn duckling
- 1 T. cornstarch
- 1 tsp. ginger
- 2 T. sugar
- ½ tsp. salt
- 1 Florida orange, sectioned
- 1⅓ cup Florida orange juice
- 1 T. lime juice
- ⅔ cup hot water
- 2 tsp. slivered Florida orange rind

Wash duck inside and out with cold water; dry carefully. Cut in quarters. Place pieces on rack in shallow roasting pan. Do not cover or add water; do not prick skin. Roast in moderate oven (350° F.) for 2 hours. While duck is cooking, blend together cornstarch, ginger, sugar, and salt in saucepan. Stir in fruit juices and orange rind. Cook, stirring constantly, until mixture thickens and comes to a boil. Take roasting pan from oven; remove

duck and rack. Pour off all fat. Add hot water to pan and stir to dissolve brown particles. Stir into orange sauce. Return duck to pan; pour orange sauce over duck. Arrange orange sections over top. Reheat in oven 10 to 15 minutes longer. Yield: 4 servings.

*LeRoy Collins, Governor,
State of Florida*

ROAST WILD TURKEY

Pick and dress turkey. Stuff with bread dressing, oyster dressing, or chestnut dressing. Rub entire surface of turkey with salt. Cream ⅓ cup butter and ¼ cup flour, and rub into turkey. If bird is lean, cover breast with thin slice of salt pork. Place turkey on dripping rack in roasting pan in 500° F. oven. When well browned, reduce heat to 275° F. Pour over the turkey 1 cup of stock as described for roast goose. Cover and roast until done, basting every 15 minutes. A 12-pound turkey should take about 3 hours' roasting.

To keep turkey deliciously moist, roast with breast down. Rest on breast bone, steady with small dishes, such as custard cup. Reverse for last half hour to brown.

BROILED QUAIL, SNIPE, WOODCOCK, ETC.

Pick and clean birds. Season with salt and pepper. Rub with melted butter. Surround with strips of bacon. Truss, as follows: Tie strings around skin of neck, leaving two long ends. Turn wings back, and tie with strings from neck. Tie legs close to body with drumsticks close together. Place on broiler, under low flame. Broil 12 to 20 minutes according to size, turning frequently. Thicken drippings for gravy. Serve birds on toast, garnished with parsley. Permit gravy to soak into toast.

ROAST QUAIL, SNIPE, WOODCOCK, ETC.

Prepare birds same as for broiling. Place in dripping pan with tablespoon butter. Bake in 450° F. oven for 5 minutes, reduce heat to 325° F. and bake 15 to 25 minutes longer, according to size. Baste frequently with drippings.

*Virginia Commission of Game
and Inland Fisheries,
Richmond, Va.*

Sportsman's Guide

... summary of hunting seasons

Ducks and Coots—Through January 1. Shooting hours will be from sunrise to sunset. Bag limit 4 with not more than 8 in possession. Only one canvasback, or one redhead, or one ruddy duck may be included in the bag or possession for the whole season. One wood duck and one hooded merganser may be included in the daily duck bag and possession. Daily bag limit on American and red-breasted mergansers is 5, possession limit 10 singly or in aggregate of both. No open season on black-bellied tree ducks.

Geese—Through January 8, with bag and possession limit of 5 geese. Not more than one white-fronted goose, or 2 Canada geese or its subspecies, or one Canada and one white-fronted goose. Hours from sunrise to sunset.

Wilson's Snipe—December 3 to January 1, both days inclusive. Bag and possession limit 8.

Quail—**General Law**—December 1 through January 16. **Bag Limit** 12 per day and not more than 36 per week or in possession except in Bexar, Comal, Bandera, Crockett, Edwards, Llano, Mason, Medina, and Sutton, Bell, Coryell, McLennan, Milam, Archer, where there is a 24 bird possession limit. See Game and Fish Laws digest for special quail seasons in Borden, Camp, Cochran, Collin, Delta, Dickens, Franklin, Guadalupe, Hopkins, Hunt, Kaufman, Kenedy, Kleberg, La Salle, Live Oak, McMullen, Rains, Scurry, Upshur, Van Zandt, and Wood Counties. Hours: one-half hour before sunrise to sunset. A 15-bird bag limit and 45-bird possession limit is now in effect in the following counties:

Possum Kingdom area: Archer, Baylor, Bosque, Brown, Clay, Comanche, Denton, Ellis, Erath; Hamilton, Hill, Hood, Jack, Johnson, Knox, Montague, Nolan, Palo Pinto, Parker, Somervell, Stephens, Tarrant, Taylor, Wichita, Wise, and Young.

Panhandle: Armstrong, Bailey, Briscoe, Carson, Castro, Childress, Collingsworth, Cottle, Dallam, Deaf Smith, Donley, Floyd, Gray, Hale, Hall, Hansford, Hartley, Hemphill, Hutchinson, Lamb, Lipscomb, Moore, Motley, Ochiltree, Oldham, Parmer, Potter, Randall, Roberts, Sherman, Swisher, and Wheeler. The season has been increased in counties under regulatory authority in the **Trans-Pecos** area. The season: through December 31 in Brewster, Culberson, El Paso, Hudspeth, Jeff Davis, Pecos, Presidio, Reeves, Terrell, and the portion of Val Verde lying west of the Pecos River. The limits remain the same, 12 per day and 24 in possession.

Dimmit and **Zavala** Counties now have a season through January 16 with limits, 12 per day and 24 in possession. All counties not under regulatory authority are regulated by General Laws and have had no changes in the limits or seasons.

Pheasant—No open season except in counties with special laws.

Turkey—**General Law**—Through December 31, with 3 gobblers per season. Check with the Law Digest for special laws on counties not under regulatory authority. No open season in Red River, Titus, Fannin, Bowie, El Paso, Reeves, Jeff Davis, Val Verde (west), Hudspeth, Pecos, Presidio, Culberson, Terrell, Brewster, Nolan, Taylor and Washington Counties. Through December 31 in Freestone, Falls, Limestone, Williamson, Bexar, Comal, Bandera, Crockett, Edwards, Llano, Mason, Medina, Sutton, and Brown Counties. Panhandle Area: season closed. Through December 5 in Possum Kingdom area, and through November 30 in Bell, Coryell, McLennan, and Milam. Bag limits: 1 gobbler per season in Brown County, Possum Kingdom area counties, and Trinity-Brazos Counties, 2 gobblers per season in Bexar and Comal Counties, Edwards Plateau area counties, and Panhandle counties.

Prairie chicken—No open season in any counties.



Winchester News Bureau

Game Animals

Elk, Wild Sheep—No open season on elk in Red River, Titus, Fannin, and Bowie Counties. December 1 through 8 in Culberson and Hudspeth Counties in areas designated by Commission under special permit. Bag limit: one elk.

Buffalo—Special permit only.

Javelina—Through December 31 in the Trans-Pecos hunting area. Bag limit: 2 collared peccary. No closed season in the Edwards Plateau area, Red River, Titus, Fannin, Bowie and Comal Counties. Through December 31 in Bexar County with 2 javelina limit. No open season in counties in the Trinity-Brazos area, Pos-

sum Kingdom area counties, Panhandle area counties, and in Brown, Nolan and Taylor Counties.

Deer—**General Law**—Through December 31 except in counties with special laws. Bag limit: two buck per season. Hours: one-half hour before sunrise to one-half hour after sunset.

Special Laws: Check Law Digest for laws on counties not under regulatory authority. The following list of counties have special seasons and/or bag limits. (All buck deer must have-pronged antlers. Permits are necessary for shooting antlerless or doe deer where seasons are specified.) **Jasper, Newton, Tyler** (except Precinct 4) through December 15. **Nolan**—Season closed. **Hill, Johnson, Washington, McLennan, Taylor, Bosque and Ellis**—Season closed. **Bell, Archer, Clay, Coryell, Denton, Erath, Hood, Jack, Milam, Montague, Palo Pinto, Parker, Somervell, Stephens, Wise, Young**—Through December 5 for buck and for antlerless. Bag limit is one buck and one antlerless or two antlerless deer. **Fannin, Titus, Bowie, Red River**—Season closed. **Bexar, Comal, Dimmit, Zavala**—Through December 31. Bag limit is 2 buck or, in special areas with permits only, 2 antlerless and/or doe deer or aggregate of 2 per season. **Brown**—Through December 31. Bag limit is 1 buck. **Kenedy Precinct 1**—Through December 1. **Delta, Franklin, Hopkins, Eastland, Gregg, Harrison, Rusk, Shelby, Lamar**—Season closed. **LaSalle, McMullen**—Through December 15. **Marion**—Season closed. **Val Verde**—east of Pecos River—Through December 15. **Panola**—Season closed. **Sabine**—Through December 30. **Upshur, Wood, Throckmorton**—Through December 15. **Morris, Shackelford**: season closed. **Area Laws**: **Panhandle**—Season closed. **Trans-Pecos**—December 1 through 8. Bag limit is one buck and one antlerless and/or doe deer by permit in designated areas, and no more than one mule deer in the aggregate. **Edwards Plateau**—Through December 31. Bag limit: 2 buck or antlerless and/or doe deer but no more than 2 deer in the aggregate. **South Central Texas**—Through December 31. Bag limit is 2 buck deer or antlerless and/or doe deer with no more than 2 deer in the aggregate in any one season. **Trinity-Brazos**—Through December 5 except in Falls, Freestone, Brazos, Robertson, Grimes, Limestone, and Williamson Counties which have through December 31, with no open season in McLennan or Washington Counties. Open season on antlerless deer is through December 5 except in Falls, Freestone, and Limestone Counties which have through December 31. Bag limit is 1 buck and 1 antlerless deer except in Falls, Freestone, Brazos, Grimes, and Limestone Counties, where the limit is 2 deer of either sex and in Williamson where only 2 buck deer are the limit. **Possum Kingdom**—Through December 5 except in Bosque County which has through December 31. Bag limit is 1 buck and 1 antlerless deer, or 2 antlerless deer, except in Bosque where 2 deer of either sex may be taken. * *

Oyster transplants show much promise.

Tropical Gamble

It is hoped that on the reefs the growth of single, round, or oval oysters will result.

A month after the reefs were built, the shell on four of the six reefs contained oyster spat or young oysters. By August, all six reefs contained young oysters which came either from the seed oysters or from existing oyster populations at Port Isabel or the Queen Isabella Causeway. Many of these young oysters were not of the commercial variety but of a smaller Gulf oyster known as a horse oyster which does not reach sufficient size to be of commercial value. But there were young commercial oysters on all six reefs in varying number, which was most encouraging.

In October and November of 1958, an act of nature occurred which delayed the main goal of the project, which was to produce commercial-sized oysters in quantity from the egg in one year. Heavy flooding of the

Rio Grande brought so much fresh water into the area as to make the waters of the bay as fresh as a lake. Many of the young commercial oysters died of the rapid change in salinity, and the young horse oysters suffered an almost total mortality. Loss of the young commercial oysters set the entire project back a full year, since it was necessary to wait until the water returned to normal salinity and a new set of oyster spat occurred. The kill, in some respects, was beneficial in that the horse oyster, which cannot tolerate as low salinity water as the commercial oyster and which has no commercial value, was eliminated at least temporarily from the reefs.

By April of this year, salinity in the bay had returned to normal, and new oyster spat had set on all six reefs. Some of the reefs show much more promise than others, but this was expected, since some of the reefs

were purposely placed at the extreme edges of the suspected oyster-producing area. At this time, a few of the original seed oysters are still alive and show growth on all three of the seeded reefs, proving the ability of the adult South Bay oyster to survive a salinity range of 0 to 42 p.p.t. A very few 90 mm. (3½ inch) oysters were found in May of this year which had survived the fresh water and had grown from egg to minimum commercial size in one year. At the present time, many young commercial oysters of 45 mm (1¾ inches) are present from the new set and are doing well. The question of whether these reefs can produce in commercial quantity is not yet answered, and the answer will have to wait another year.

A side issue of this experimental oyster planting concerns the sports fisherman. All along the Texas coast, from Port Arthur to Corpus Christi,

• continued on next page

THESE THREE SPECIES HAVE ADDITIONAL PROTECTION.

CANVASBACKS

DRAKE: RED HEAD, BLACK BILL

HEN: BROWN HEAD, BLACK BILL

BOTH SPECIES ARE DIVERS, AND BOTH PREFER LARGE BODIES OF OPEN WATER.

CANVASBACK
 Drake - RED HEAD; BLACK AND WHITE BODY.
 Hen - BROWN HEAD AND BREAST; SLATE-BROWN BODY.

REDHEAD
 Drake - RED HEAD; BLACK AND GRAY BODY.
 Hen - BROWN HEAD AND BODY.

REDHEADS.

DRAKE: RED HEAD, BLUISH BILL with WHITE RING

HEN: BROWN HEAD, BLUISH BILL with WHITE RING

RUDDYS.

DRAKE: BLACK TOP WHITE CHEEK BLUE BILL

HEN: BLACK TOP MOTTLED CHEEK GRAY BILL

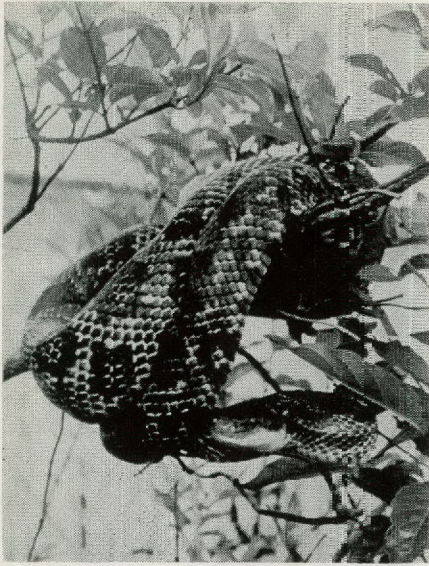
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Hanging in a tree, an elapid, or chicken snake showed a suspicious stomach bulge.



Investigation after the snake was killed revealed a bird, which had been swallowed whole.



photos by Bob Waldrop

The bird turned out to be a purple gallinule, a species which frequents South Texas marshes.

Tropical Gamble

much of the bay sports fishing is done on and near oyster reefs. These established fishing spots consistently produce good catches of trout, redfish, and other food and game fish. Oyster reefs harbor many shrimp, crabs, and

small fish, and there is a definite tendency for the larger fish to frequent these reefs for their food supply.

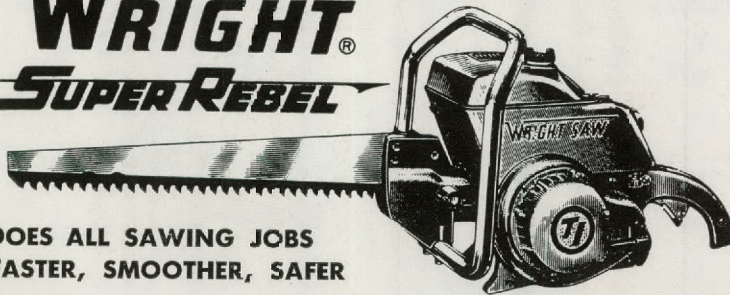
To my knowledge, there has been little sports fishing on the Port Isabel reefs to date, but one report was re-

continued from page 29
ceived of a nice string of 27 trout taken while drifting over one of the reefs. It is expected that sports fishermen will soon learn the best seasons, type of bait, and fishing method to use on these reefs and that soon these reefs will become popular and rewarding fishing areas.

This experiment, if completely successful, probably will bring about a new interest in the commercial production of oysters in this area, either on public or private reefs, and will be of benefit to bay sports fishermen. The hard-fighting South Bay oyster deserves this boost. * *

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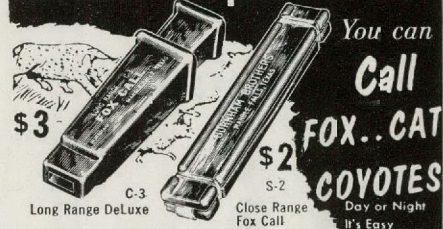
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* * *

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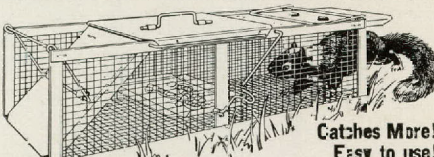
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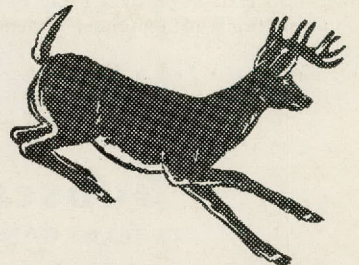


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Outdoor Books

THE BOBCAT OF NORTH AMERICA, by Stanley P. Young. 193 pages. Illustrated with black and white drawings and photographic plates. Bibliography and index. Published by The Stackpole Company, The Telegraph Press Building, Harrisburg, Pennsylvania. \$7.50.

"I'm from the Lightning Forks of Roaring River. I'm all man, save what is wild cat and extra lightning." This was the boast of an early Missouri River Boatman. Such metaphors and expressions like "looking meaner than a cotton sack full of wildcats" indicate the traditional respect felt for the animal's ferocity. The introduction of **THE BOBCAT OF NORTH AMERICA** recounts interesting historical facts about the subject, derivation of its name, and old superstitions.

The book continues with a detailed, scientific study of this remarkable cat, covering geographic distribution, habits and characteristics, parasites and diseases, economic status, hunting and control, and races of the bobcat. It is liberally illustrated with photographs and drawings; included also is a graph of a study of the reproductive tracts of a number of female bobcats.

The author has had a long career as a government biologist. The present book

is the fourth and last in a series of monographs on North American predators. It is the result of half a century of studies and field observations, taken from records on file, and personal interviews with outdoorsmen of many kinds. Much of it is from the author's own wice and rich experience. The study is enlivened with interesting anecdotes, which make it good reading as well as a substantial reference book.

—Joan Pearsall

TYLER, TEXAS, C.S.A., by William A. Albaugh III, 235 pages. Published 1958 by The Stackpole Company, Telegraph Press Building, Harrisburg, Pennsylvania, \$5.95.

Better take a second look at great-granddaddy's rifle stored away in the attic. Note particularly the identification on the lockplate, and if it says "Tyler, Tex., C. S.," you're in—just name your price.

Only four complete rifles of the thousands of guns reportedly produced by the Confederate States Ordnance Works at Tyler during the Civil War have ever been accounted for. In **TYLER, TEXAS, C.S.A.** Albaugh traces the scant information available on the largest Confederate ordnance works in the southwest, developing mate-

rial recorded in the "Tyler Day Book" manuscript from the National Archives.

Into this data kept by Lt. Col. G. H. Hill, commanding officer at the armory, Albaugh inserts news from the war fronts. A glimpse is given of the conflict for power existing between individual states and the Confederate government. He points out that the states, though willing to break the unity of the United States to create the new government, were unwilling to give that government adequate power.

Part I concerns the Tyler ordnance under the private ownership of Short, Bischoe, and Company, and details from a similar works located in Arkansas. Part II returns to the Tyler works as recorded in the "Day Book." Eight pages in this section are devoted to photographs of the four guns and some of the lockplates in known existence, a percussion-cap box, a Confederate uniform, and accoutrement. Part III contains events occurring after the fall of the Confederacy, including an account of the destruction of the armory.

One may more likely find **TYLER, TEXAS, C.S.A.** on the Civil War historian's shelf rather than belonging to modern gun enthusiasts, but avid antique collectors will find the book most interesting.

—Carolyn McWilliams

PEEP-LO, written and illustrated with black and white drawings, by Jane Castle. 33 pages. Published by Holiday House, 8 West 13th Street, New York 11, New York, \$2.50.

A shell and a story. Those were the two lovely things Jill had to bring home to her mother and father, and **PEEP-LO** tells how she obtained them. It is a charming tale of an alert little girl's absorbing interest in the natural wonders around her.

The beach is her playground, and one day while walking toward a beautiful shell her attention is attracted by the antics of a mother plover. The bird is trying to protect its nest and eggs. When she realizes this, the little girl delightedly watches from a distance, and sees one of the chicks hatch. The little creature hops near enough for her to actually touch it.

The simple episode is a thrilling adventure for the child, conveyed to the reader in words that young children can easily read for themselves. The story could be followed very well by the illustrations alone. They are excellent, and their arrangement with the text is very pleasing. The fact that this book has a reinforced binding, is sidesewn and clothbound, adds further to its high rating for children.

—Joan Pearsall

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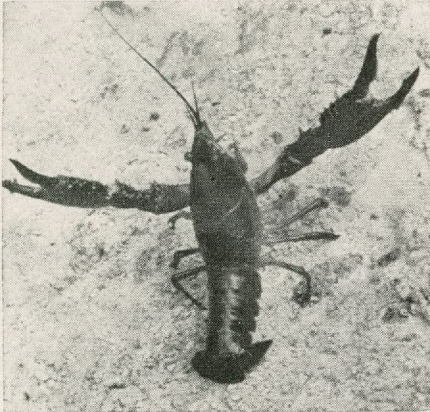
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Junior Sportsmen



WHO AM I?



The Crayfish (or crawfish) is usually from 1 to 3 inches long and of a variety of colors. (This one was a deep red.) They are more apt to be found in shallow creek beds and pools. The smaller brown ones are a favorite fishing bait. Beware of the powerful pincer-like claws when handling them.

Attention Jr. Sportsmen:

Send your questions about wildlife or stories about your experiences with animals to us. We always welcome them and look forward to answering each one.

BIG CATCH



Jerry Wayne Sterling, Jr., Beaumont, caught the two reds on the right while fishing at Bolivar Jetties near Galveston. Just goes to show us what we can do if we really try. Jerry's tarpon on the left would give any Junior Sportsman a real battle. He'll probably be back for more next year.

Try Your Luck at This Fall Quiz:

1. Ducks and geese migrate south in search of food and shelter.
2. A favorite turkey food is chuffas.
3. Groups of quail huddle in a roosting circle when bedding down for the night.
4. The turnover of lake water is caused by winds and cold weather.
5. Grass begins to grow faster as cold weather moves in.
6. Migratory waterfowl live the year around in the same area.
7. Deer grow only one set of antlers.
8. During the winter snakes leave their dens frequently.
9. The gopher is one of the few true hibernating animals.
10. Trees lose their leaves in the fall because they get too cold.

Fall is a time when nature changes color. Most of this change is simply an indication that every living thing is preparing for the winter cold. Look around you and see the changes. You may notice some that others miss. Write us about them so we can tell others. Check below for the answers to this month's quiz.

ANSWERS:

1. TRUE—However, the flight of waterfowl is actually triggered by the decrease in daylight hours.
2. TRUE—This is one food planted especially for turkeys.
3. TRUE—Quail do this for two reasons, warmth and safety. Heat from each body is reinforced by the heat of the others, to keep the birds warm in the cold weather. Second, the birds point their tails to the center and their heads out, placing themselves in a perfect position for watching all directions and for a split-second burst into the air should they be attacked.
4. TRUE—Turnover really means mixing of the water.
5. FALSE—A look outside will tell us that the grass goes into a dormant, or sleeping stage.
6. FALSE—Most waterfowl travel hundreds of miles from their wintering grounds to their summer homes.
7. FALSE—Their antlers are renewed each year, to be used just for one season. In the winter a buck is as bald-headed as a doe. By April, his new set of antlers begins to grow and by late summer his rack will be full size, but will have a fuzzy covering. His antlers are "in the velvet" and are very tender. When the blood is cut off at the base of the antlers, the skin dries and falls or is rubbed off. Soon the antlers become hard and polished and are used for fighting. In the winter when the antlers are no longer used, they drop off.
8. FALSE—Winter is hibernation time for snakes.
9. TRUE—While the bear, skunk, coon, and other animals who sleep through the winter can be awakened if disturbed sufficiently, the gopher cannot. His heartbeat drops from between 200 and 350 beats per minute when he is awake to only 5 per minute when he is in this deathly sleep. Since very little energy is used while he sleeps, it is possible for him to sleep the entire winter without replenishing his energy. Of course, the little energy that is used is provided by stored-up fat. When he finally awakens, he will weigh about one-third less than he did when he first dozed off.
10. FALSE—The primary reason is the decrease in daylight hours. This is a signal to nature that winter is coming on. Since roots will not take up water in cold weather, the tree must make adaptations to conserve the moisture needed to survive the winter. Leaves permit the loss of water by a process known as transpiration. If trees did not lose their leaves in the fall, they would use up this moisture and die. Before the leaves drop off, a layer of waterproof cells forms at the base of the leaf stem. This cuts off the water and food circulation. Food making processes cease, the chlorophyll disappears, and the red and yellow pigments are revealed. The brightly colored leaves then fall off with the breeze.

Redhead and Canvasback

Illustrated
by WALTON CUDE



Plagued by drouth on their nesting grounds and popularity as game in their winter haunts, the redhead, in flight, and the canvasback ducks face population problems great enough to call for protection limits. The two ducks are similar in many ways. High content of aquatic plants in their total diet contributes to the ducks' tastiness, and forms 90% of the redhead's diet and 81% of the canvasback's. Both are diving ducks, plunging many feet under water for choice bits of food. They fly in wedge-shaped flocks and, with deep curiosity, decoy easily. In winter their appearance is much alike: rust-red head, white breast, and black chest. The canvasback has a longer profile with its deep bill and sloping forehead. Redhead is slightly smaller, weighing about 2 pounds; the canvasback averages 3 pounds.



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