



READY ON THE RIGHT—This is not just a piece of gas pipe decorated like a gur. It's the real thing, as was attested by the fact that it was used to win the Texas Muzzle Loaders' Association title. The man behind the weapon is Paul S. Freese of Marietta, Ohio, twice winner of the Lone Star State classic held this year at San Angelo. The photo story of the championship shoot is told on page 14 of this magazine.

Game and Fish

A MONTHLY MAGAZINE DE-VOTED TO THE PROTECTION AND CONSERVATION OF OUR NATIVE GAME AND FISH; AND TO THE IMPROVE-MENT OF HUNTING AND FISHING IN TEXAS.

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TEXAS GAME AND FISH invites republica- tion of material since the articles and other data comprise factual reports of

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The Cover



The diamond-backed rattlesnake, this month's cover by Orville O. Rice, is the largest and most common poisonous snake and the most dangerous one in Texas. It is found in the western two-thirds of the state and is most abundant in the southwest section. This snake prefers rocky ledges, cliffs, and rough country where it can escape from the hot sun by crawling into cracks, crevices, holes or dense growth of vegetation. The rattler hibernates during the winter. The young are born alive and range in number from 10 to 20. They are almost a foot long at birth and have tiny fangs and poison sacks.

Dove Detectives

By TOWNSEND MILLER

Assistant Director, Department of Conservation Education

HOW much do you know about mourning doves?

Take a question. Take four of them. Jot down your answers and see how you score.

1. What percentage of doves killed by hunters in Texas each season are less than one year old? (a) About 35 per cent. (b) About 60 per cent. (c) About 85 per cent.

2. What percentage of doves killed by hunters in Texas are hatched in this state? (a) Less than 35 per cent. (b) 35 to 60 per cent. (c) Over 60

per cent.

3. Which is most important in determining the length of season and bag limits for Texas? (a) The number of doves migrating to Texas from the Midwest. (b) The number migrating from the Southeastern states. (c) The number migrating from Oklahoma, New Mexico, and Colo-

4. Seventy-eight young doves banded in Texas in 1951 have been killed and their bands reported. Of these Texas-hatched doves, how many would you guess were killed in other states? (a) Over 50. (b) 25 to 50. (c) Less than 25.

The answers to these questions and others like them are most important in determining mourning dove hunting regulations from year to year.

For instance, if most of the doves killed each year are the young of that year's hatch, then the success of the current hatch must be known in order to set proper regulations.

It also is important to know how many adults survived the winter in different sections of the nation, where they migrate during the autumn months, and where and how far summer-hatched young travel before opening of shooting.

Each state presents its own individual conditions, yet each is dependent to some extent on conditions in other states.

A poor prediction concerning what doves will be where and when and how many will be there could mean disaster for years to come on one hand, or, on the other hand, could unjustifiably prevent hunters from harvesting a proper surplus.

Since the dove is a migratory bird, seasons and limits are set by the U. S. Fish and Wildlife Service.

To gain the information needed concerning hatching successes and seasonal migration, the Wildlife Service is conducting an extensive dove banding program. This is supplemented by annual census counts.

State wildlife agencies like the Texas Game and Fish Commission do most of the banding and censusing, and the federal body acts as a central agency for gathering, analyzing, and distributing the resultant information.

So far as has been determined to date, here are the answers to the four questions listed at the beginning of this article:

1. Studies show that just over 60 per cent of the doves killed each year in Texas are young hatched that year. Thus, summer hatching successes in Texas and elsewhere determine to a great extent the number of doves available to the hunter that fall, and a late census of young doves is most important in setting proper regula-

tions. The answer is (b).

2. Indications are that less than 35 per cent of the doves killed by hunters in Texas are hatched in this state. This means that hatching successes in other regions are important, too. The answer is (a).

3. Doves banded in states to the north and slightly to the east of Texas seem to be the most important factor in the supply in this state during the hunting season. Iowa, Illinois, and Arkansas rank right behind Texas in production of Texas-killed doves.

Texas hunters have killed and reported a total of 208 banded doves. Seventy-four of these originally were hatched in Texas. The number of doves killed in Texas but banded in other states (either as adults or as young nestlings) are as follows: Iowa 19, Illinois 13, Arkansas 13, South Dakota 12, Louisiana 10, Wisconsin 9, North Dakota 8, Indiana 7, Michigan 7, Minnesota 7, Nebraska 7, Kansas 5, Missouri 5, Ohio 4, Oklahoma 3, and Alabama, Arizona, Colorado, Florida, and Tennessee 1 each.

It should be pointed out that these figures do not necessarily reflect correct proportions for each state, because some states banded more doves than others. However, evidence seems to indicate that doves migrating from the Midwest are very important to the Texas supply during the hunting season. The answer is (a).

4. Of the 78 doves banded in Texas in 1951 which have been killed and reported, not a single dove was killed in another state. Four were killed in Mexico, and the other 74 in Texas. The answer is (c).

The four sample questions in this quiz are only a small fraction of the great number which must be answered in order to set proper mourning dove regulations.

Take the number of states in which doves are hatched (which, incidentally, is every state in the Union), the number of states dependent largely on the hatching success of another state or states, the number of states each dove crosses while migrating, the number of days possible for open hunting, etc., multiply them all together in every different combination possible, and the result will be approximately the number of questions which must be answered.

Carefully controlled census counts of adult birds, nests, and young birds hatched indicate the relative success or failure of the breeding season in various areas each year.

A good hatch in a given area means a plentiful supply of doves, and a poor hatch means a poor supply—SOMEWHERE. That "somewhere" may be in the area where the hatching census is made, if the birds usually are inclined to linger until the hunting season. Or it may be five states away due to migration.

Banding helps the U. S. Fish and Wildlife Service check seasonal migrations. Through banding, a pattern may be established which indicates how hatching successes in individual areas affect those areas, themselves, or other regions far away during the hunting seasons.

One valuable phase of this work is a cooperative composed of the states in Region Four of the Fish and Wildlife Service. Personnel of the game departments of ten southern states census and band doves.* The information is sent to a central office in Atlanta, where Harold S. Peters, research biologist of the Service, compiles and interprets the data and releases it to those concerned.

The office also acts as a clearing-house for band returns and reports.

The ten states in Region Four which are cooperating are Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee.



These eight-day-o d mourning coves, shown being fed by one of the parents, are old enough for banding.

Texas is not a part of Region Four. However, since doves are such an important part of the Texas hunting scene and this state has so many problems in common with these Southeastern states, the Texas Game and Fish Commission has joined in the work.

The contributions from Texas are valued highly by the Fish and Wildlife Service because Texas serves as a funnel for many doves migrating between the Southern and Midwestern states and the wintering areas in Mexico.

The Texas Game and Fish Commission in 1950 sponsored the banding of 4,608 doves. Another 3,730 were banded in 1951, and, although reports for 1952 are not complete, it is expected that a similar number will be banded this year.

One-hundred-fourteen of the 4,608 doves banded in 1950 have been killed

and reported. One-hundred-one were killed that same year. Of these, 96 were reported killed in Texas, four in Mexico, and one in Louisiana. One of the doves downed in Mexico had traveled 1,039 miles after being hatched and banded that summer in Bailey County in West Texas. Of the 13 doves banded in 1950 but not killed until 1951, ten were killed in Texas and three in Mexico.

Seventy-eight of the 3,730 doves banded in 1951 were killed and reported during the last hunting season. Seventy-four were downed in Texas and four in Mexico.

As mentioned earlier in this article, the Atlanta office has reported 203 banded doves killed by Texas hunters. Seventy-four were hatched and banded in Texas The other 134 came from 20 other states, with the region to the north-northeast of Texas predominating.

^{*} Through Federal Aid to Wildlife projects.



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Mourning doves grow rapidly. These youngsters already have been banded and are ready to leave the nest 14 days after hatching.



In addition to the banding program, the Game and Fish Commission also has sponsored numerous census counts, using the Wildlife Service's "Coo-Road Count" method, in many parts of the state. This information also is sent to the Atlanta office.

Texas long has been noted as one of the finest dove hunting states in the nation. Preliminary studies help to explain why.

Since studies indicate that more than 60 per cent of each season's kill are the young of that year, hatching success is a most important factor.

Recoveries of banded doves indicate that about one-third of the doves killed in this state are hatched at home, and Texas, year in and year out, usually has good hatching seasons.

The figures also indicate that Texas draws from many other states, so that good hatches there could help fill in the gap should home hatching be poor.

Hunters get a break, too, in the position Texas occupies at the gate-way to wintering grounds in Mexico. Migrating doves from many parts of the nation pass this way, and some

spend the winter here.

Because of these factors, Texas hunters hardly are aware of the alarming decline in doves in many other states. This decline began causing concern in 1945-50, and the situation was intensified in the Southeastern states when trichomoniasis, a lethal dove disease, hit the dove population when it was down, so to speak.

A hard freeze in the lower Mississippi River Valley during the winter of 1950-51 killed many more adult birds, including a substantial number in East Texas, to contribute to the depletion.

Several states are talking of complete closed seasons.

Texas has felt the effect, naturally, and the East Texas freeze took its toll. But the outlook is not serious at present.

Peculiarly enough, it is believed that Texas contributes very little to dove hunting successes in other states as witness the fact that of the 192 bands recovered from the 8,338 doves banded in Texas the past two years, only one was killed in another state. The gigantic banding and censusing project being conducted by the states and the Wildlife Service gradually is drawing a definite pattern into focus. This pattern, when further clarified, eventually will provide a valuable tool in setting regulations to insure the best dove hunting possible in future years.

Basic operations in the part played by the Texas Game and Fish Commission are the banding of newlyhatched doves and censusing by use of the "Coo-Road Count" method.

In making a Coo-Road Count, the observer makes at least three separate trips from a week to ten days apart over the same designated route. Driving at 25 miles per hour, he stops every mile and notes the number of doves heard calling and the number of doves seen as singles, pairs, and flocks.

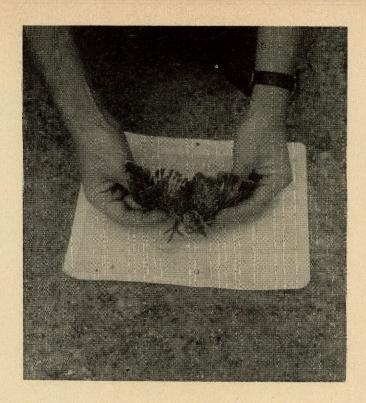
Each census trip begins exactly half an hour before sunrise. All conditions are carefully controlled, and the same procedure is followed by observers in all the states.

Claim is not made that the system

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Feather development of young dove nine days old. Most banding in Texas is done on nestlings. (All photos ilustrating this article through courtesy of Wendell G. Swank.)





will reveal actual populations. That is not the purpose. The purpose is to establish year-to-year population changes.

If similar Coo-Road Counts are made under the same conditions, in the same manner, and in the same area year after year, a good indication of rises and falls in dove populations can be gained.

Cooperation between states makes an overall picture possible.

Most of the doves banded in the banding part of the project are young, still in their nests.

Doves grow rapidly, being able to leave the nest and fly quite well in less than 14 days. Banding is done when the youngsters are between seven and 11 days old.

Light metal bands are supplied by the Fish and Wildlife Service and are inscribed with a number and a notation to the hunter to "Write F. and W. Service, Washington, D. C."

Most of the banding in Texas is done by wardens and wildlife technicians of the Game and Fish Commission, although some individuals offer valuable assistance.

The person doing the banding, in addition to recording where and when each dove is banded, also notes the number of nests found with young, with eggs, and empty and the time spent searching. These figures are used to help establish the degree of nesting activity in various sections of the state.

At the end of the banding season, each person is asked to fill out an additional brief questionnaire containing questions such as "When dic doves begin nesting in your district?" "When was the peak of nesting in your area?" "In your opinion were losses normal, high, or low?" "What were the general weather conditions, and what effect did they have on nesting success?" and "What predators did you find most often, and approximately how many times did you find them?"

These many questions and figures answered and supplied by many persons in many states are helping piece together slowly but very sur-ly the status of the popular mourning dove and population fluctuations from year to year.

State and federal agencies cannot do the job alone, however. All the effort spent on the vast banding program would virtually be wasted without one other important factor—the hunter.

Hunters can help by noting data concerning where and when they happened to kill a banded dove and reporting it to the state Game and Fish Commission at Austin or the Fish and Wildlife Service in Washington.

Hunters might also be on the lookout for doves, either killed or in flight, which have been painted with distinctive markings. Careful and accurate observations concerning the color and position of the markings on the body (including right or left side or both), the number of markings, and the place and date seen should be reported. The Wildlife Service and a number of individual states have marked these doves to check migrations.

Some Facts About

THE BARRED OWL

By J. M. INGLIS Wildlife Biologist*

WHILE driving through "deep" bottoms at night you may often see the "out hootinest" owl in the woods. The barred owl which has been named Strix varia by scientists is a large hornless bird with brown eyes. His coloration is grey brown with crosswise bars going around the head and neck and lengthwise barring on the body, and with a white spotted back. This, plus his noisy habits, make him easy to identify and protect. He is an interesting as well as beneficial bird to have in the woods as he eats many pestiferous rodents which in turn pays for any depredations he might make on man's properties.

The barred owl is an animal of the deep, dark woods. Its home-country requirements are filled by heavily wooded swamps, dense growths of pines, thickly timbered hardwood bottoms or any place which offers cool solitude. He flies when disturbed in the daytime, and has no difficulty in seeing. At times he has been observed hunting during daylight hours.

Much hunting is done in the open with a light, noiseless flight. He glides gracefully and pounces from a silent approach on any unfortunate mouse which allows himself to be seen. He flies skillfully through the meshing forest branches and makes an upward zoom when landing on a branch. Soaring is not included in this bird's flight methods, but on the other hand, he is not swift enough to catch a bird on the wing.

The barred owl is a fastidious bird that keeps his appearance at all costs, even bathing through holes in the ice in the dead of winter. This habit excites some comment by the various authorities but few give any reason for it. Perhaps it has to do with presence-announcing odors. He is not an aggressive bird, not even attacking when the nest is being molested. However, some people tell stories of valor in his protecting home grounds.

The barred owl call has been described as "Who-cooks-for-you?— Who-cooks-for-you all?" With other calls which vary from just noise to well organized duets, quartets, and sextets of hooting and howling, barred owls can drive away sleep and drown out all other sounds. This is especially true during breeding season. When young are in the nest the parents are noticeably more retiring.

The courtship of the barred owl is announced by the vocal efforts of both sexes. These love notes have been described as loud rhythmic calls, varying from loud maniacal laughter to cooing, from the full power of the lungs to soft. While this is going on the birds are perched in low branches with half-spread wings, nodding and bowing and twisting their heads from side to side. The mating season occurs most often in February and March.

The barred owl is often associated with the red-shouldered hawk in his habits. The two birds complement one another, both taking approximately the same prey, one in the daylight hours and the other at night.

For nesting this owl seems to prefer hardwoods. They use the same approximate location from year to year in hollows or in nests on large branches next to the trunk. When nesting in a natural cavity they use no nesting material, laying their eggs on whatever litter is present and on some of the bird's own down in the bottom of the roomy and rather deep space. When nesting in the open an old nest is the rule, since the bird cannot build a structure capable of holding the eggs and many times cannot even repair an old one. Nests relined are at times red-shouldered hawks' nests (indeed at times even while the Red-Shoulder is still in possession), squirrels' nests from which the tops are removed, and their own from past years.

Ordinarily two or three eggs are laid; in rare instances, four. Farther West the usual number is three, while in other places the number is more commonly two. The egg has a granulated shell slightly rough to touch, not glossy and pure white in color. The shape is oval.

Incubation takes about 28 days. Only one brood is raised in a season but a second or third clutch of eggs will be laid if the previous ones are destroyed.

The young are hatched with their eyes closed but by the end of the first week they are partially open. At this time the little ones show some activity and make a peeping sound. They are brooded most of the time until they are three weeks old; then they begin to show fight if handled. After this, gloves are in order.

After a time, activity of the parents and young reduce the nest to a small

* PR Project 51-D.



The barred owl. (Photo courtesy of the U. S. Bureau of Biological Survey.)

platform. This is a dangerous place for the young and at times they fall.

However, the falls evidently do not hurt the youngsters very much because there has been a case observed of a 57-foot tumble with no evident ill effects.

At about four or five weeks of age the young climb out of the dilapidated nest and move about in the surrounding branches. At this stage they are still getting prepared food from the parents which they order with a squeaky voice. It is thought that they are tended by the parents after leaving the nest at about 40 days and even through their first summer.

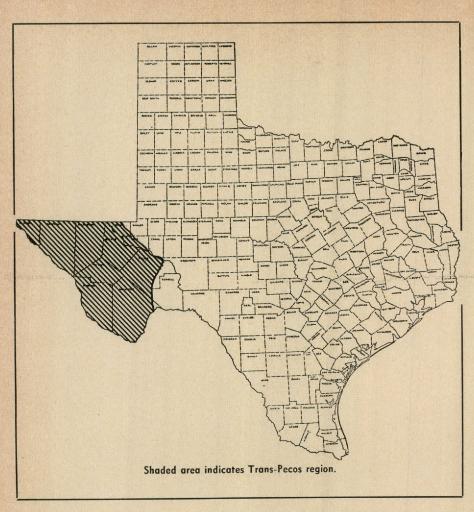
The barred owl eats many animals. The size of food is limited by what he can kill with his feet. In order to capture an animal as large as the cottontail rabbit, for example, he fastens on its back and rides it down. The food habits of this owl are considered beneficial to man.

Birds taken include chickens, pigeons, doves, grouse, quail. small owls, gallinules, flickers, woodpeckers, kingfishers, crows, bluejays, cardinals and other smaller birds. Mammals in-

clude many mice, rats, chipmunks, gray squirrels, flying squirrels and fox squirrels, rabbits, minks, opossum, weasels, moles, shrews and even bats. Many pocket gophers are taken in Central Texas. Other animals taken include frogs, crayfish, salamanders, snails, slugs, perch, grasshoppers, crickets, beetles and spiders.

The few game birds taken are generally weak and sickly individuals whose escape mechanisms are slowed down. They feed on small owls regularly and even other barred owls on occasion.

BARRED OWL EASY TO IDENTIFY AND PROTECT



THE region west of the Pecos River is divided into four sections, each of them distinct in land characteristics, but from a game management viewpoint the four divisions are similar. The Edwards Plateau extends into Pecos and Brewster counties. Extensive mountains, basins, and high tablelands make up the other sections. Elevation varies from 2,500 to 5,000 feet with several large mountain peaks. The highest of these is Guadalupe Peak which has an elevation of more than 8,500 feet. The main mountain ranges follow a course from northwest to southeast and are in the southern extremities of the Rocky Mountains that extend into Mexico through this section of Texas.

Rainfall varies from nine inches in the western portion to about 20 inches on the higher mountains and in the eastern part of the Edwards Plateau. The availability of moisture in the Trans-Pecos region is affected by the

* Adapted from Principal Game Birds and Mammals, Texas Game and Fish Commission. kind of rains which occur, as well as the total precipitation. Some of the rains are so light that most of the moisture is lost by evaporation. Other rains are torrential, resulting in a high rate of runoff.

Summers are relatively cool in the high altitude of this region, and the winters are moderated by sunshine. However, snows are not unusual in the vicinity of El Paso and on the higher mountains. The arid climate prevents extensive cultivation except in the irrigated areas, the upper Rio Grande Valley being the largest of these. Extremely high yields of cotton, forage crops, fruits, and vegetables are produced in the irrigated sections. Cattle and sheep raising are the principal agricultural industries. There is considerable mining activity in the region that produces quicksilver or mercury and silver in commercial quantities.

The climate of much of the Trans-Pecos region is of the mountain type. Where this type of climate prevails, the temperature is lower throughout the year than on the adjacent lowlands. In the lower half of the Trans-Pecos, the average date of the last killing frost in spring is about March 20. In the northern half, the last killing frost may occur as late as April 5. The first killing frosts in the fall occur about November 10 in the northern part of the region and about November 20 in the southern section.

Most of the soils in this part of the state are stony and shallow. River-deposited terraces are common in the northeastern section in the vicinity of El Paso and in the extreme northwestern corner of the region.

Except for the Edwards Plateau, described previously, the vegetation of this region consists mainly of short grama and mesquite grasses. The higher mountain areas with more abundant rainfall support certain Rocky Mountain varieties of trees including several kinds of oaks, junipers, pinon pine, and western yellow pine. On the rough highlands several kinds of desert plants are intermixed with the grasses. These plants include lechuguilla, yucca, cenizo, and catclaw. Creosote bush, tar bush, and tussock, burro and salt grass are common on the lowlands.

Tobosagrass, burrograss, red grama, and muhly grasses are the desert species best adapted to the hard land; the sandy soils produce dropseed, black grama, and crowfoot. A small area of short grasses occur in the central portion of the Trans-Pecos region. Rainfall is the main factor which determines whether short grasses or desert grasses prevail. The bestknown species on the deep loam soils are buffalo, blue grama, and dropseed. Black grama, hairy grama, and little bluestem grow on the sandy soils. The clay land supports burrograss, tobosa, and red grama.

Regions of Texas*

TRANS-PECOS

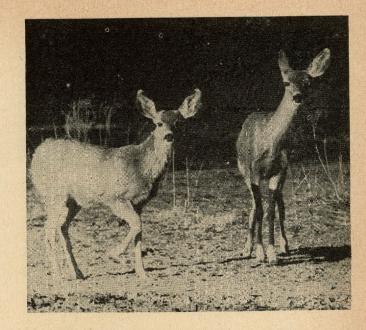
Most of the short-grass area is used for grazing. Wheat is grown on some of the deep loam soils. Practically all of the desert-grass area is range land. Because of the irregularity of rainfall and the low amount of precipitation, range management in the Trans-Pecos region is very difficult.

Antelope are common on many large ranches. Most of the antelope in Texas are in the Trans-Pecos country. The largest herds of this animal are found on plains where there is little vegetation except grass. Because of its ability to get enough water from its food, the antelope can occupy range land which does not have surface water readily available.

The decline of the antelope began with the settlement of Texas. After the introduction of cattle, antelope were killed in large numbers because many ranchmen regarded them as competitors for range grass. Later the construction of fenced pastures further encouraged killing because fences prevented the escape of the animals. This was especially true after the introduction of sheep-proof fences because antelope refuse to jump even a very low fence, although they will crawl under barbwire fences. The early reduction of the number of antelope is indicated by the fact that the first closed season on hunting was enacted by the Texas State Legislature in 1903.

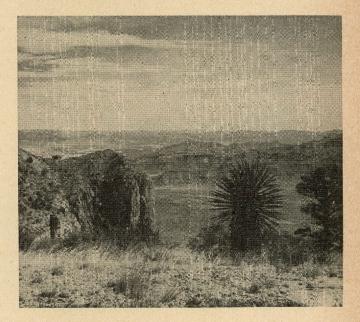
Antelope have shown some increase during the past 20 years, but the gain has been gradual and slow. The present antelope population may be three or four times that of 1925. The Trans-Pecos counties having the most antelope are Hudspeth, Culberson, Jeff Davis, Presidio, and Brewster. Some restocking has been done in each of these counties. Some of the existing herds are increasing in number while

*



Mule deer, top right, are native only to the Trans-Pecos region of Texas. The other photos depict typical scenery found in this part of the state.





Hunting with

Fred

As Told By His Sister
MRS. GRACE MOORE HAYTER

(Editor's Note: Fred Moore is the Area Manager for the Black Gap Wildlife Management Area in Brewster County. The land that comprises this Area has been purchased by the State of Texas and is under the direction of the Texas Game and Fish Commission.)

I T WAS after a stormy day's ride when Fred and I sat close by the kitchen stove that he told me about his most exciting panther chase. We talked while the wind roared and howled and tried to tear the very roof from over our heads.

"I guess that first ole cat gave me the biggest thrill," he began, "'cause the folks didn't believe I could catch a panther."

That chase took place on our brother Clovis' ranch in the Davis Mountains. Fred was in Fort Worth when the other boys began writing him from home that the panthers were killing calves and colts in the neighborhood. Fred answered that he would soon be home and get rid of the "cats."

The boys doubted that he could catch the panther for they knew how hard it would be to trail without well trained dogs. And the dogs that Fred would have to work with were not trained!

I pushed another stick of wood into the stove and said, "Tell me about it. Did you take Big Red and Little Red with you?"

"Yes, and Ranger," he answered.

And then he was off on the story... He did not keep his horse in the pen that night because he thought

he could find him easily enough early the next morning. However, he did not find his horse, so he decided to go back to the house and get his gun and the dogs and start out on foot. He wanted to get an early start, because he realized that it was difficult for a hound to trail after sunrise unless the ground was damp. With the dogs eager to go, he started out for a mountain about two miles from the house. The boys had told him that the latest kill had been found in that direction. This mountain of boulders is one of the most difficult mountains to climb that you can imagine.

Fred had just about climbed to the top when he heard Big Red start to trail. Big Red was the only dog he had in the pack that had ever been on a panther chase. His loud yelps echoed and re-echoed through the hills. Hurrying on, Fred spotted the old dog a good distance ahead of him climbing over and winding about those big boulders while his barks grew louder and louder. Fred knew the trail was getting warmer.

Now the other two dogs fell in behind the old dog and began trailing too. Fred had trailed all the other kind of animals in that part of the country, but this was different! Even the dogs were acting differently. He knew he was in for a panther chase.

By this time, the dogs had made a big circle and were now coming back towards Fred. He climbed upon a big boulder and then onto a narrow ledge trying to keep them in view. Soon they were out of sight; however, he could still hear them, and they seemed to be baying.

They were somewhere down under the ledge. He started down, but just as he rounded a bend, he saw a huge panther making long leaps and coming straight towards him! It was coming so fast and was so near that there wasn't time to take aim, so he just pointed his gun toward it and fired.

The panther doubled up as if it were going to fall, and then suddenly gained its footing and leaped far out over the cliff and out of sight. Fred ran to the edge of the cliff and peered over but could see nothing of the fleeing cat. However, the dogs were barking again and Fred, after going only a short distance, saw another huge panther leaping and bounding towards him! Close on its heels were the excited dogs. He knew the moment he saw this cat that it was much larger than the one at which he had just shot.

Fred raised his old 30-30 and fired three shots at him just as fast as he could, but none of the shots took effect. The old cat leaped out of sight. Fred stuffed more shells into his gun and started after the dogs. Soon he lost sight of them, but he could still hear them baying viciously. He rushed on, guided by their barks.

Suddenly, as he climbed over a pile of boulders, he saw the cat! The dogs had him bayed far out on a narrow cliff. He had gone out just as far as he could and then had turned on the dogs. Another step and he would go over. He was slapping at the dogs with his mighty arms and trying hard to turn them back.

Fred had borrowed the old gun that he was carrying, and kid like, he had not tried it out. Afterwards when he did, he found that the sights were very far out of line. Not knowing this, however, he crowded up to within about 30 yards of the dogs and the panther. Taking good aim, he fired, but it didn't seem to worry the old panther at all.

He fired five or six more times, but he could not tell where his bullets were going. Finally he aimed at the cliff about two feet from the panther to see if he were over shooting him. The bullet hit not six inches from one of his big front paws, glanced off the rock and hit the big cat in the shoulder. With a mighty snarl he leaped out among the dogs, slapping right and left.

His shoulder was bleeding and his great mouth dripped foam as he hissed and snarled. Fred pumped the lever of his gun as he was firing point blank. Then, as he tried to pump a shell into the chamber, the old gun locked right there. Fred couldn't get the shell in or out. He said he didn't have time to do much gunsmithing right then as something had to be done and done quick. The old panther was now within 20 feet of Fred and the dogs were at the panther's heels.

Fred looked first one way and then another; he stood on a ledge about two feet wide on top and about a hundred feet to the bottom on one side and about 30 or 40 feet to the bottom on the other side. He thought of running straight ahead of the panther and dogs, but considering the track he had before him, he put the thought from his mind. Suddenly he saw the huge pine tree that was growing right against the wall of the cliff on its lowest side.

The top of this tree came to within eight or ten feet of the top of the bluff. There was his chance! That would save him, but he must also figure some way to keep the panther from getting away. So he dropped the old gun and took a wild leap for the top branches of the pine. It swayed

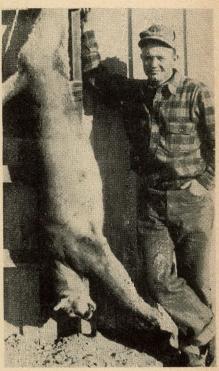
and bent but did not let him fall. He skinned down the trunk about as fast as Jack came down the beanstalk and started for the house, going as fast as he could possibly go. He had to have another gun and he had to have it quick!

He had not gone very far when to his glad surprise, he met Clovis. Clovis was riding a mule and he had his gun with him. He had heard the dogs barking and had come to see what was going on. Fred climbed on the mule behind Clovis and away they went toward the sound of the barking dogs. They saw the old panther long before they got to him. The dogs had him bayed high upon another cliff not too far from the one he had just left. The dogs just wouldn't give up; they were going to get that cat!

The going got so rough that the boys had to leave their mule and climb on foot. They slipped up to within good shooting distance of the panther and Clovis took good aim. Only one shot was necessary. The big cat leaped high and clawed at space and then came tumbling down. Fred said that it looked like the cat turned ten flips before landing in the top of a tree and falling on to the ground!

"It was a good fight," Fred ended the reminiscent story.

And he said that last sentence more to himself than to me, for he sat for quite a while looking dreamy eyed and saying nothing. He was seeing that whole show over again.



Fred nunts all kinds of animals, but perhaps tracking down a mountain han is the most exciting of all.



Here Fred poses with the results of another "big cat" chase.

Texas Tracks

By JAY VESSELS

TWEET, TWEET!

The official state bird book being prepared by the Texas Game & Fish Commission probably will be published in 1953.

The book will contain full details about the 844 kinds of song birds in Texas and will be generously illustrated in color.

SEE THE BIRDIE!

Charley Hunter, noted wildlife authority in the Big Bend country, reports he has his work cut out for him.

A while back when the drought drove hungry antelope into the suburbs of Alpine for feed, Hunter filled news agency orders showing the wild animals amid civilized scenery. He did that by hiding in a garage. Loss of sleep was the principal investment.

Now, he has an order for an antelope photograph in a natural setting, taken in color and taken closeup. That means a blind and many, many hours on location.

Hunter pointed out that the prong horns are extremely wary, and noncooperative with photographers, when they are NOT desperately hungry.

WEED WITH A WALLOP

W. E. "Bill" Williams who teaches conservation education at Sul Ross College, has deftly utilized his attractive home grounds for demonstration purposes. Williams, an authority on grasses and vegetation generally in the Big Bend country, has samples of growth, good and bad, on his grounds without marring their beauty. He even has one plant of the potent "loco weed" which affects livestock something like marihuana affects humans.

KELLER MAKES S.E.P.

Game Warden Claude Keller who flies the Game & Fish Commission airplane on coastal patrol, provided the Texas flavor in an article in the SATURDAY EVENING POST, entitled: "Watch Out For The Wardens Now." Warden Max Kluge also was mentioned.

Keller earlier this year, had been the subject of an article in Texas GAME AND FISH—"Flying the Wildlife Beam."

JUSTICE FOR HEADLIGHTERS

Dr. Fred Weston who writes "South Texas Outdoors" in the SAN AN-TONIO LIGHT:

"When they (four headlighters) were brought to trial . . . Judge McCollum Burnett of County Court Number 1 lowered the boom in a legal manner. A maximum fine of \$880.40 shared equally by each offender was levied not to mention loss of hunting privileges for a year . . . Law enforcement in this case should have its preventive effect for surely it creates a certain element of fear of getting caught. Money in that amount for fines doesn't grow on trees."

BASS BABY SITTERS

Aquatic biologists plan to expand their experiments with bass hatching next spring.

Great progress was made in 1952 pioneering with a temperature control device used in one pond at the San Marcos fish hatchery.

Now it is planned to emphasize studies next spring, designed to determine whether the brood bass need a change of diet to enhance spawning processes.

RAINY DAY BLUES

Warden Supervisor E. M. Sprott flicked on his car radio.

He listened attentively, snapped an acknowledgment and then signed off.

The rain pattered on his car roof, strained the windshield wiper:

"Rainy weather just means trouble for me," Sprott observed. "People in the country can't work in the fields. They go hunting. And they don't always stick to seasonal game."

He paused.

"That was a relay complaint. Some rabbit hunter shooting squirrels."

Field Data

A LOSING FIGHT

Paul Crume in his "BIG D" column in the DALLAS NEWS:

"An auto killed a 'possum right in the 5000 block of Live Oak during the night. Anyhow, Royce Colon of 9024 Angora found the carcass Wednesday morning of this latest victim in nature's ceaseless holding against civilization. This is a war that nature seems to lose bit by bit but never does. You chop the Johnson grass out of the back yard only to find that wild clover has infiltrated the front while your back was turned. Let a thicket grow up in a park and the foxes take it over. The wilderness gives way a little before the civilized march, waiting patiently for its momentum to dwindle and ready to send 'possums back into thickets at Main and Akard and to start climbers growing on the windowless ruins of Fred Florence's new bank building, a nest perhaps for eagles. A human being, especially one who wants a good front lawn, lives only in a kind of armed camp. Man is the only animal so dissatisfied with the world into which he is born that he always wants to change it into something worse, although some solve the war by surrendering the front lawn and retreating to the golf course."

SPRING THE YEAR AROUND

Water conscious Texans, visiting the arid Big Bend country, might keep in mind the precious oasis at Balmorhea State Park in the shadow of the Davis Mountains.

The historic old San Solomon springs have been converted into an enormous walled swimming pool. The springs flow 26,000,000 gallons daily and maintain the pool temperature at 72 degrees the year around.

A January dip thus is as pleasant as one in mid-summer.

The State Park Service maintains elaborate cabin service for travelers wishing to stop over where once tarried savage Indians and the buffalo as well as the pioneers of the old Southwest.

COOPERATIVE COONS

A certain man fretted over his lack

Game Notes

of resistance to more home grown sweet corn than was good for his bulging waistline.

"Already gained a pound and a half on two meals," he confided to office associates.

He got the answer the easy way. An overnight raccoon raid.

"Oh well," he observed, "they left the corn stalks standing to preserve the pattern of shading the melon vines."

Exploded a wag:

"Sure, 'coons like their melons kept in the shade too."

The sequel to the sad saga is awaited.

HOW IT'S DONE

Paul Timmons in "FINS AND FEATHERS" in the Amarillo SUN-DAY NEWS-GLOBE:

"If you see a fisherman waded way out in the lake and fishing with saltwater tackle, with a whopping big bait, he's probably trying to catch one of those big catfish which every one knows are in Buffalo Lake although they are seldom landed.

"While it isn't essential to use heavy tackle for the big catfish, a big bait is desirable and a big hook is necessary. The hook should have a bend deep enough to circle the heavy bone that goes around the cat's mouth, otherwise the point of the hook will

hit the bone and the hook will pull out, straighten out or break off.

"Fishing for these big catfish is a tedious business—you can fish for days without a bite—but catching a 20 or 30 pound catfish is worth it.

There is one catfish in Buffalo Lake that should weigh close to 50 pounds. He weighed more than 40 when he was released and he hasn't been caught or found dead. Landing that rascal would make up for a lot of slow fishing."

NARROW ESCAPE

Al Parker in his column "FISHIN" in the WICHITA FALLS TIMES:

"Running a Lake Wichita trotline the other morning Hal Elsworth, Herbert Lewis and Stanley Williams took off a ten pound yellow catfish. Noth-

Fish Reports

ing unusual in that kind of fish but when the trio examined it they discovered it was almost skinned from the gills down. Then they remembered the big fish had put up practically no fight when boated and that the line had far more slack than when they had last run it. Putting all this together, they are convinced that a monster fish had almost swallowed the 10-pounder, and probably would have succeeded but for the spike fins."

WHERE'S PUNCHY?

The old salts around the Marine Laboratory at Rockport took in stride the efforts of a land lubber to appraise their efforts in "The Salty Side of Texas" carried in the March Texas Game and Fish.

But they lost gait over one minor exception to the smooth reaction. This was in the persistence of student visitors, especially those in the grade school bracket. They now came to see "Punchy the Pelican." If a pelican doesn't appear in a reasonable time, they turn on the lab staff for an explanation.

Because it said right there in print that "Punchy" was there in person in every port.

NEW FISHIN' STRATEGY

Sports Editor Harry Gilstrap in his "BETWEEN YOU AND ME" Column in THE AMARILLO DAILY NEWS:

"Hunting and Fishing Comment is the province of Paul Timmons, who does our excellent Fins and Feathers column in The Sunday News-Globe, but maybe it's all right for me to sneak this in, since it involves a football man, Larry Cunningham, associate coach at Hardin-Simmons University.

Larry is marketing a new fishing device which looks, to my inexpert eye, like hot stuff (he sent me one, too, so this is not a free plug; going to have to take it out to Buffalo Lake and give it a try).

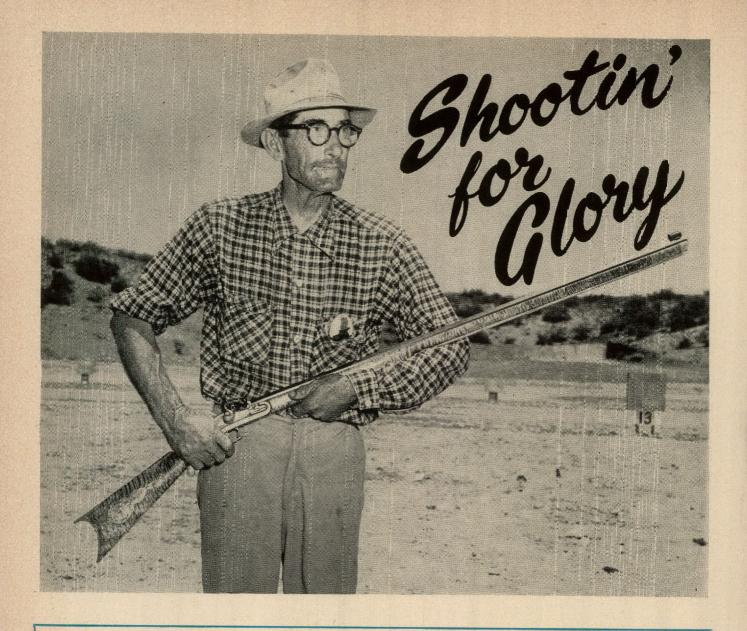
It's called a Fish Decoy and is a clear plastic, egg-shaped gadget which comes in two sizes, six and eight inches. You put live minnows, live worms, small perch, grasshoppers, blood bait or such inside, then set it out. There are small holes to let the

Press Views

water inside and keep it circulating so the live bait will stay alive, and there's a red float to locate it and control the depth.

The idea is that, immersed, the decoy will attract fish which will swarm around and, naturally, get hungry for the bait they can't reach. Then you drop in your baited hook and the prey will snap at the chow which is available. It works either in clear or muddy water, it's claimed. The outfit includes 20 feet of line which, with the float, can be packed inside the plastic egg. Good for trotlines, too.

Cunningham didn't invent it himself. It was designed two years ago by another Abilene man and was tested thoroughly before Larry and an associate purchased the rights. Presently it's being marketed only in Abilene, through Cunningham-Parker Enterprises, 2066 Butternut Street, though it soon will be distributed nationally. The price is \$1.98.



By STEVE HAMLIN

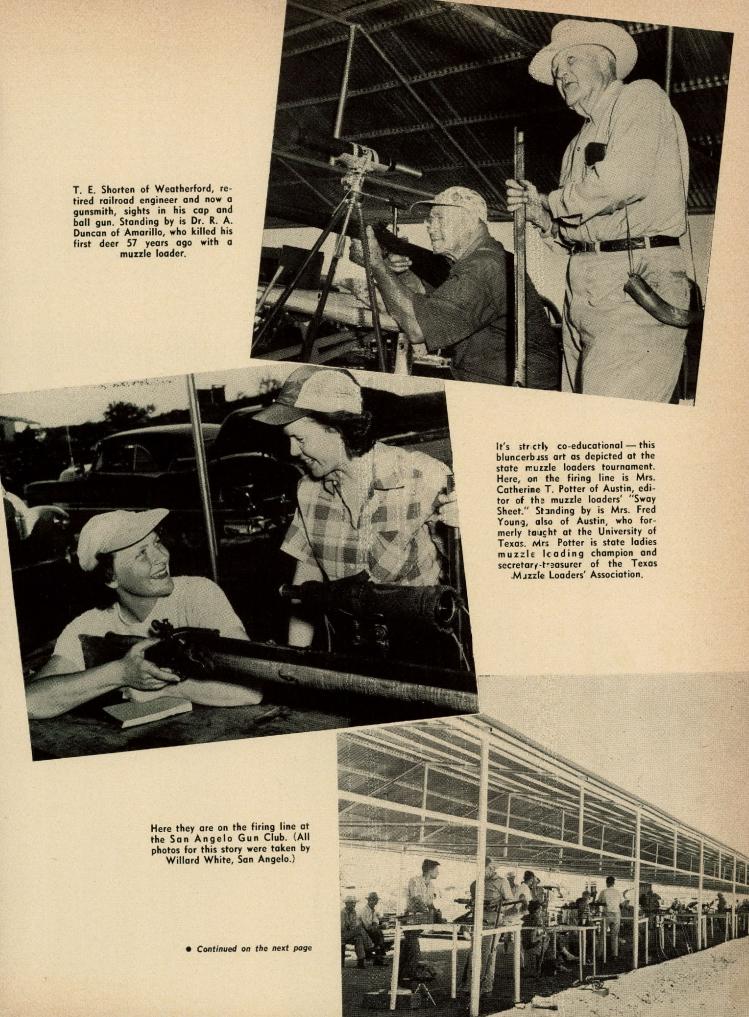
I T'S a far cry from the shoot-to-kill custom of great grandfather's day when the settlers couldn't afford to miss; a far cry to the present day when they shoct for fun—and for trophies.

The contrast was graphically shown at the 1952 annual meet of the Texas Muzzle Loading Rifle Association at the San Angelo Gun Club on Lake Nasworthy.

But the cld timers would have felt thoroughly at nome since the modern sharpshooters loaded the big guns from the front end, measured off the powder, tapped in the wadding and then rammed home the bullet.

Some of the present cay versions of the old Kentucky rifles are so big and so powerful that they are fired only from a fixed rest. It's certainly no setting for the rank and file accustomed as they are to the lighter guns.

Duff Lewis of Christoval, Texas, is pictured above as he holds one of the rifles used at the San Angelo meeting.







Texas Muzzle Loaders' Me

The women folks, who used to help herepresented here by Mrs. L. A. Riche Rosemary Richards, age 5, holding t

Young Texas depicted by Dwain Cur a cluster of cap 'n ball beauties.

Serious business is this Kentucky-r March White (below), age three years by John J. Moore, also of San Angel Association.

A cluster of the sharp shooters (b Dallas (second from right), tell G. A Pruitt's 1862 Enfield. Kelly is holding l attached. On the extreme left is Don with J. W. Brown of Stacy next with his extreme right, has an 1850 J. Staplet

Not all of the interest at the big she Bart (right) demonstrates a couple of the pockets. The one in his right han other is an 1862 Colt Police Model .36

J. W. Potter (lower right) of Austin,





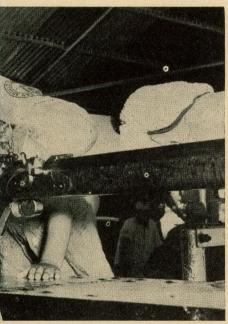
fortifications in the frontier days, are ir., (left) of Pecos, and her daughter, wder horn. That's a .34 calibre rifle. ower left photo) of San Angelo, admires

usiness as is indicated by Little Miss in Angelo. The expert slant is provided o is president of the Muzzle Loaders'

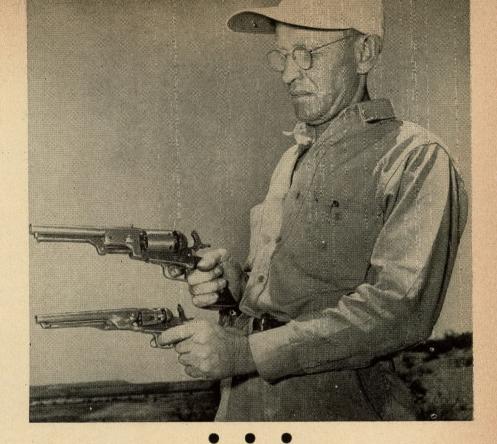
photo) watches R. L. (Bob) Kelly of itt of Austin, about the flint lock on 64 Whitnryntle .69 calibre with bayonet an of Austin, holding an 1850 Hawken Springfield. Albert Bart of San Angelo,

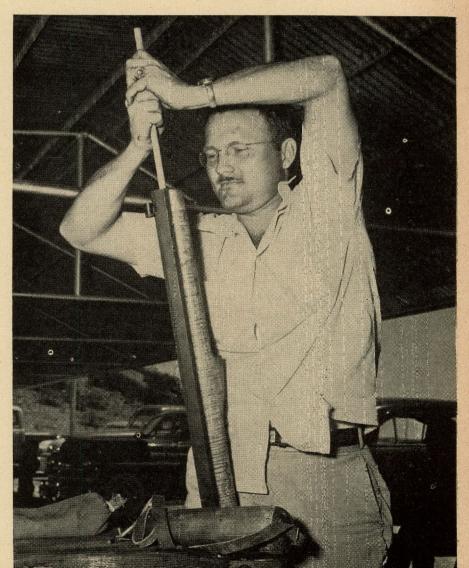
as devoted to cap and ball guns. Albert hitting babies that could be packed in an 1848 Colt Dragon .44 calibre. The e.

a ramrod on his favorite rifle.









Home Grown Texas Trout

By TOWNSEND MILLER

Assistant Director, Department of Conservation Education

E VER catch a rainbow trout in Texas?

Then go west, young man, go west. A Borger groceryman, Jim Nix, is successfully raising trout in the Panhandle. His 30-acre lake is yielding trout daily to an ever-growing list of fishermen.

Nix hatches the trout in his own hatchery from eggs shipped from Cape Cod, Mass. The young trout are kept in troughs and fed artificially for a full year. When released in the fishing lake, they are around 12 inches long.

It is a completely artificial operation and an expensive one. But the grown trout are game and willing fighters when lured to the end of a fishing line.

Anglers are charged \$3.50 per day for the privilege of fishing the lake

The four-pound, 24-inch Texas-produced rainbow trout at right grew to that size in less than two years. Holding the two beauties is E. A. Nix, manager of his father's unusual enterprise.

and are permitted to take six trout home with them.

Trout weighing up to three pounds have been caught, and this writer has had over half a dozen large trout chasing his lure at one time.

It should be emphasized that the conditions around which Nix has built his amazing trout lake and hatchery are most unusual. These same conditions may not exist any place else in Texas.

Except for a short stretch of stream in the Guadalupe Mountains on the Texas-New Mexico border, trout are not native to Texas. In fact, they stubbornly refuse to live even when introduced into the most trout-like streams of the state.

Many individuals have tried to raise trout elsewhere in Texas. Efforts have been made by state and federal hatcheries to stock selected waters. All have failed.

There are spots in Texas where the water perhaps maintains the low year-around temperatures required by trout. However, none yet found contain the high content of oxygen required by trout, particularly in summertime. Oxygen content, not temperature, is the limiting factor.

To Nix goes credit for being an alert opportunist. He recognized on a plot of land about 12 miles northeast of Borger the unusual conditions necessary for raising trout. And he took advantage of them.

The location of his project is in the bottomland of Spring Creek a few miles from its junction with the Canadian River.

Here was an abundant supply of water—cold water—containing ample oxygen. The fishing lake has neither surface outlet nor inlet. It was formed by scooping out sand and gravel and allowing the underground water to fill it up. Some 15,000 gallons seep underground through the sand in and

out of the lake every minute of the day.

The hatchery and connecting rearing ponds are located on a gentle slope adjacent to the lake. Four wells drilled 80 feet through the sand to clay bottom provide an ever-flowing supply of water for the hatchery and the ponds where the trout spend the first year of their lives.

These wells produce water the year around which averages between 54 and 60 degrees. One well never exceeds 52 degrees. The four produce 600 gallons per minute for the nursery operations.

The lake and rearing ponds are literally overflowing with trout.

Almost 40,000 have gone into the lake, awaiting the eager angler. That's more than a thousand per acre, and fishermen have hardly made a dent in them.

Nix has 60,000 more trout between eight and twelve inches long in the rearing troughs and ready for the lake. They'll go in if fishing slows down.

Two more hatches of 300,000 and 235,000 are now between two and eight inches long and growing every day.

In the past 20 months, Nix has produced more than 600,000 lively, healthy trout!

The fishing lake itself is between 20 and 35 feet deep. Water temperature at the bottom is 59 degrees the year around.

The rainbows which eventually swim there begin their lives in a small building containing 10 hatching troughs 14 feet long, 12 inches wide, and eight inches deep.

Outside on a terraced slope leading toward the lake are ten concrete rearing troughs, six feet wide and 22 inches deep. They are between 60 and 100 feet long. Seven more sand-bottomed troughs 70 feet long and 12 feet

as wide are at the bottom of the slope.

The slope makes it possible to run the 600 gallons of water produced by the wells through the hatching troughs, out through the rearing troughs, one by one, and on into the lake.

It is in these facilities that the trout are raised,

The sight of hundreds of thousands of brightly-hued young trout crowded together in the clear cold water would lift any angler's heart. And highlighting the display are 300 grown trout, ranging up to almost four pounds, which Nix keeps in the lowest troughs.

These he has seen grow from newlyhatched fry into hefty lunkers in less than two years. Someday he hopes to use them for brood trout, milking them of their eggs and eliminating the necessity of buying eggs elsewhere.

Nix now imports his eggs from Massachusetts at a cost of just under \$3 per thousand. They come shipped in special screen-layered containers which permit melting ice to drip over them enroute.

The eggs are placed on screens and immersed in the constantly flowing water of the hatching troughs. Within a week they hatch and drop through the screens. Unhatched eggs can then be removed with the screens.

The baby trout require no feeding for the first 21 days, Nix says. During this time they are practically motionless, living off a small sac of food attached to their stomachs when they first hatch.

The tiny youngsters must be "taught to eat" their first food, finely ground liver, by trailing the finger through the water, creating a slight disturbance.

Soon they graduate to one of the rearing troughs outside and are fed ground horse meat.

In Texas' relatively warm climate, where severe winters do not interrupt growth, the trout grow rapidly on their plush artificial diet of bread, meat, cottonseed meal, bone meal, codliver oil, and fish meal. An inch a month is about average.

In the latter part of their one-year growing period, they are placed in the sand-bottomed troughs where they seem to do better.

When the rainbows reach a length



This is Jim Nix's 30acre trout lake which has been stocked less than two years. However, it yields rainbows weighing over three pounds.

Trout spend the first year of their lives in these concrete rearing troughs where they are fed artificially. Four wells supply them with 600 gallons of flowing water per minute.



of about 12 inches, they are taken from the paradise of rapidly-running water and unlimited food supply they knew in the troughs and are released in the lake.

It is not unusual for the fisherman to have half a dozen brightly-hued scrappers fight for the right to become hooked. Few go away without their limits. Trout over three pounds have been taken.

The conventional trout fly does well, but Nix's rainbows, because of the artificial feeding conditions throughout the first year, readily take almost any bait offered them from a small piece of beef on up.

The sale of sand and gravel dredged in digging the lake helped pay for the costly project, but Nix estimates he has between twelve and fifteen thousand dollars invested.

His son, E. A. Nix, devotes his full time to managing the project, and father Nix is quick to give him due credit for its success.

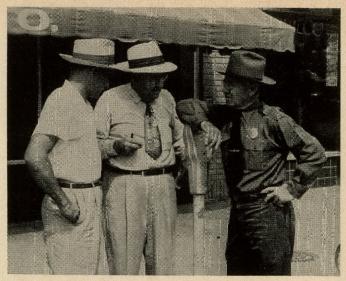
The first batch of trout the Nixes raised were bought as newly-hatched fry a little less than two years ago.

• Continued on Page 30

HIGH LEVEL Fishing LOWDOWN

By JAY VESSELS

Assistant Director, Departmental Publications



Al Parker (center) talks over the wildlife situation with Leo Lewis (left) aquatic biologist, and W. C. Cave, game warden.

THE original assignment was to find out why the managing editor of a large and vigorous Texas daily newspaper personally handles the gossip column about fish and fishermen.

It not only seemed extraordinary that he could spare the time but that he could have the patience to handle the monumental detail involved in who caught what, and where, and on what. Certainly his contribution was extraordinarily inspiring to wildlife conservationists whose efforts to stimulate public interest invariably suffers from lack of objective reporting.

The task of locating this distinctive journalist became a challenge from the very start. The man, Managing Editor Al Parker of the Wichita Falls Daily Times, having left for home before the interviewer arrived late in the day, described the route. Go ahead on Scott; turn left at Sixth; pass stadium; turn left at first corner which is Polk Street; second corner, turn left; that's Talunar Lane; third house on left, (always left), frame house with three small trees on the lawn; house number, 2216.

He said: "It's easy to find." Then: "I'll be cutting grass in the back yard."

He didn't say it resignedly, like the Missus was making him work. He said it more with a challenge that would show up any imposter posing as a former reporter.

His directions proved perfectly as precise as a cub reporter on a photo scouting run coulc hope for. Even to the conspicuous "three little trees."

At the end of the trail, the man with the strange self-assignment was contemplating his grass cutting routine. The setting headlined flowers and bushes, bold faced with a massive rose trellis smothered with scarlet blossoms. The sound effects were provided by a bird house full of jabbering martins. An old-fashioned lawn bench lured the host and his guest away from immediate contact with lawn mowers. There in the quiet of a beautiful Texas late evening was unfolded a stirring and inspiring narrative. It came from the lips of a man whose professional life has been devoted to chronicling the give and take, the sordid and the good in every day life.

After Managing Editor Al Parker had been briefed on the curiosity in his seemingly odd personal assignment, he put the punch into his lead, newspaper style. He quickly related why he was the conductor of a fishing column ordinarily handled by a member of the sports staff. He thoroughly allayed any ideas about any M. E. eccentricities.

In soft tones the pleasant, middle-

aged Parker boiled it down for maximum impact:

Five years ago his eyesight failed. The nation's top specialists tried to help him. Finally, his paper sent him fishing, to write a fishing column while he entrusted the great Texas outdoors to restore his precious vision.

In terse style, Parker said he not only got back his eyesight but that he was back on the job within seven months. And now has "near perfect vision," thanks to medical treatment provided while on his momentous leave and to the adaptation of ordinary spectacles.

Backtracking, Parker touched up the details:

"My eyes were so bad five years ago that I couldn't even read a Western Union telegram (these wires are printed in upper case). It didn't make sense to try to do a newspaper desk job when I couldn't read."

Parker relaxed his grip on the edge of the backyard bench and went on:

"My boss, the late B. D. Donnell, then was editor. He had been eager to establish a fishing column. We tried to work it into the sports editor's routine. About the time we started, we would change sports editors. So that didn't work. (Parker had been sports editor, first on the Galveston News and then at Wichita Falls, and

he had been a fisherman all along but he hadn't done a fishing column and just didn't have the time when he became managing editor.)

"Finally, Mr. Donnell suggested I try the column. The wife and I packed up and for seven months I wrote a twice-weekly column, usually about two or three pages of copy.

"At the start I had to dictate my pieces. Tried to use the typewriter but simply couldn't see the keyboard. My wife had to take down what I said and type it; that was difficult for her because she knew nothing about stenography. She also had to do all the driving.

"We spent all our time in the open, and I soon began improving. Strictly a physiological condition but the benefits of being outdoors all the time were immeasurable.

"We traveled all our time covering the 12 lakes within a 150 mile radius of Wichita Falls. At first, the copy consisted largely of a description and history of the lakes; where public facilities were available; about cabins and boats and bait and where they caught them and how.

"After a few weeks I began to see again; slowly at first. Finally I could type again. I was getting medical treatment all the time. My knowledge of the outdoors, which always had been a hobby, was a help all the time. I began getting in some fishing myself, and that helped, too. In fact, I don't know a better tonic."

Now, the *Times'* Sunday sports section carries one of the most elaborate outdoor columns published in Texas, if not in the country. All of the background developed while Parker was covering the country, with or without eyesight, goes into the weekly feature, plus varied observations, ranging from philosophy to birds. But the basic ingredient concerns fishing.

Parker, now a perpetually pleasant man with his own reasons for appreciating life, works at odd times on the one edition contribution. He gets countless telephone calls from fishermen, and tackle people; he gets stacks of postal cards and letters; people drop in to see him; they stop him on the street; they call him at home. Always, he has paper and pencil ready. Al Parker has to be right up against the deadline, with Page One hanging in the balance, before he'll

brush off a fishing column contact. It's that professional and, above all, that personal with him.

He does insist on authentic data; that is, he wants a "fish story" labeled just that. He does not propose to pawn off fictitious angling reports as genuine information. That is why the catching of the 52-pound fresh-water drum in Lake Kemp cost him so much time.

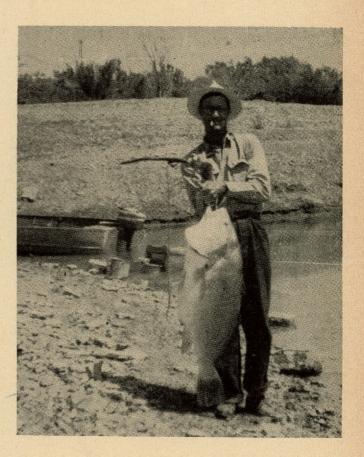
Parker approached that piscatorial phenomenon with the thoroughness of a reporter tracing a historic news break. A game warden tipped him off about the unconfirmed report. "I wanted to be certain about this fantastic story," said Parker. "I checked around a dozen places; I made a dozen phone calls. I knew all along that R. J. Jones and W. G. Jones, who caught the fish, came from a good family, and could be trusted. But there were details hard to get because I couldn't locate them. Before I was through, I had Game Wardens Tate Pittman and Morris Stallcup helping me out.

"You understand the significance of catching a 52-pound drum fish when you realize that the largest drum previously caught in this area weighed no more than 14 or 16 pounds, as I recall it. So I had to watch out for a hoax. After all, somebody could catch a large salt water drum and bring it in here from the coast."

While Parker had been talking along, first describing his own amazing rally from blindness and then getting into his column work, Mrs. Parker pretended to inspect the flowers. She occasionally looked toward her husband, with the faintest trace of a smile. That could have mirrored her own pride in her husband's comeback to strong health, or could have reflected her amusement at one managing editor finally being pinned down for an interview about himself.

Finally, when the narrative reached the current fishing routine for the Parker family, Mrs. Parker whose first name is La Verne, came over and sat down beside her husband. Obviously these two fine people have much more in common than just an occasional fishing trip. Memories of those dark days just five years ago perpetuate their capacity for enjoying life.

Parker gets a rare photo from the fishing front—a shot of a 52 pound freshwater drum caught in Lake Kemp.





Making the rounds, Parker (right), checks tackle developments with sporting goods salesman, Jimmy Maxwell.

In his weekly treatises on fishing and the out-of-doors which usually run at least two full columns, Parker mixes up the straightaway material with the feature stuff But he was pretty happy that his last column had included the story of the uncanny 52-pound freshwater drum, a report of a huge bass leaping into a fisherman's boat, and the yarn about an angler's catching a raccoon on a minnow.

He uses the column as a medium for comment on varied affairs and usually balances the related facts with history and theory. Like:

"Austin Huffhines is not sure, but he thinks there is a good chance the black bass he caught in Lake Kicka-200 Sunday was a small mouth. Unfortunately he did not save the head of the four and one-half pounder-it went the way of the rest of the catch he and Willard Huffhines and W. C. Huffnines had made during the day. All of the party agreed the head was unusual and all guessed it was a small mouth. It is quite possible that a few small mouth black bass are in Northwest Texas lakes. I have heard stories of small mouth catches. Some of them turned out to be Kentucky spotted bass out of Lake Kemp. And some of 'em turned out to be white bass I have never known for sure of a small mouth catch in any of the lakes but that doesn't mean it hasn't been done, and Austin Huffhines' fish might have been a small mouth. As a general rule, the small mouth prefers water a bit colder than ours."

Parker dislikes the extravagant statements but he certainly goes along with the inevitable optimists. Like:

"A wind that wouldn't quit put pretty much of a crimperoo in the fishermen's best intentions during the week following a weekend of rain that was heavy enough to wash out most intentions but not enough to add any appreciable new water to the lowering lake levels. All of the fishin' holes were on the rise at the start of the week, but none had enough to gain more than a foot. It is a pretty fair country guess that the hottest stages of the spring fishing have passed but my advice is not to take it too seriously. The only way you can know for sure is to take a fling at it, and when the fishing bug bites you, the only remedy is to get going."

Another time, Parker was treating current fishing results, or lack of results:

"That gets back to the old story of fishin's always fun, whether or not they are biting. Never take the other fellow's word about the fishing prospects; when the bug bites you, simply crank up the jalopy and get going. Because the fish don't bite today is not too good evidence they won't bite tomorrow. But for that sort of philosophy there would be no fishing. All optimists are not necessarily fishermen, but all fishermen are optimists."

For fishermen of the week he has nominated:

"Whit Roberts of Bryson, who along with two others, wrestled three monster catfish off a Possum Kingdom trotline. Baiting with perch in the Rock Creek neighborhood, the big cats weighed in at 58, 54 and 48 pounds. Wow, what a pile of catfish steaks!"

Parker got variety through this report:

"The mysteries of fish and fishing are continually unfolding for those who are interested in such things. Sister lakes, such as Kemp and Diversion, often present differences that are not understandable even to those who make serious studies of the subject. Most of these vagaries are unimportant, but nevertheless interesting. Aquatic Biologist Leo Lewis comes up with one to which there is no known answer.

"After a couple of years of intimate study of Lake Kemp, including a great many gill net checks, Lewis noted he had never taken a buffalo from Kemp. The fact spurred his curiosity, and he started asking questions. Ed Bonn, biologist who put in two earlier years on Kemp, was asked if he had ever known of a buffalo coming from Kemp. Of the hundreds of fish he had caught in seines and nets, not one was a buffalo. The commercial fishermen who operated at Kemp this spring made the same reply—hundreds of carp but not a buffalo.

"Kemp's little sister, Diversion Lake, fed by water from Kemp, presents the opposite picture. The buffalo apparently is one of the most prevalent species... The buffalo, a member of the sucker family, is one of the most prolific and widest distributed of southwestern fishes. It certainly is not easy to guess why it is not in Lake Kemp; or if the buffalo is in Kemp, why it is never caught. Perhaps the biologists some day will have the answer... as of now, they know no more about it than laymen."

Further on the problems of modern lake management:

"A problem for the men of science, and concerning Lake Kemp, that is of importance is beginning to get some attention. That is the high salt content of Kemp. It is a problem that both the irrigation district and the Texas Game and Fish Commission are planning to tackle at the first opportunity. These two agencies hope to ferret out the source of the salt beyond any doubt, and then to consider action necessary to eliminate it. It is actually a much bigger job than appears on the surface. There are many oil wells on the Kemp watershed. Salt springs are known to exist. A long series of analyses over the watershed and in the lake itself is the starting point.

"Prevalence of salt in Kemp's waters probably has no direct effect on fish life, but if it is a factor in killing off or stunting vegetation, its indirect effect could be disastrous to fish. Vegetation is the basis of food supply for all aquatic life. Any factor that bears upon vegetation is quite important to the fishermen, and that is sufficient reason for the Game and Fish Commission's interest in Lake Kemp's salt content."

Another time, Parker reported about two quail strutting across a city man's back yard, then added:

"And speaking of birds, I wonder if it is only my imagination that the bird population in the city proper is on the increase. It seems to me that I have seen more birds, and more species, year by year. I am quite sure I have never before seen as many blackbirds as this spring. Ordinarily a "country bird," blackbirds seemingly have moved to town."

But it's primarily fishing talk that fills up Parker's column.

"I've heard a lot of talk about fourpound crappie down through the years but I've never had the good fortune of seeing one that big. Last week a crappie catch of four pounds, three ounces was reported from Lake Texoma, and the story was given wide circulation. If the weight is correct, it is quite likely the largest crappie ever taken from Texoma. The lucky fisherman was Isaac Burns of Denison, and the bait, as might be guessed, was a live minnow." Parker works over the entire outdoor picture in the long stretch. He readily leaps to the defense of the expert on the scene when some confused angler disagrees. He then says tartly: "He's a scientist." As if to say, he knows his subject.

Exploiting the mysteries of the deep and dabbling in the man-made efforts to solve them, Parker helps greatly with efforts to aid wildlife generally. But he observes: "I've disagreed with the game department on some issues in the past, and probably will do so again in the future."

That is exerting his editorial prerogative. Cynicism, supposedly the common tool of newsmen, seldom slants Parker's views. But one pet peeve is the reference to "sportsmen." "I don't use the word sportsmen," he said. "Those who fish or hunt are not necessarily sportsmen. The word has been misused so often, it has lost its meaning." He thinks so much emphasis has been placed on fly fishing and bait casting that many outdoors writers pass up the far more numerous "pole and line" and live bait fishermen.

From the overall outdoor reporting viewpoint, Parker believes Texas newspapers are overlooking a great field. "It's not only catering to what people like to read, it is a matter of informing the public on wildlife's struggle to exist."

This genius at blending the impossible—managing editor routine and a lowly fishing column—may have some comment NOT for publication, if the fish begin biting rabidly around Wichita Falls.

Because, as he sketched future fishing plans and referred to a comfortable cottage on Diversion Lake, Mrs. Parker spoke up:

"Don't forget, dear, about our house remodeling this summer."



The Missus relents before evening sets in and joins her husband in packing for a short swing around Diversion Lake.



Figure 2



Figure 3

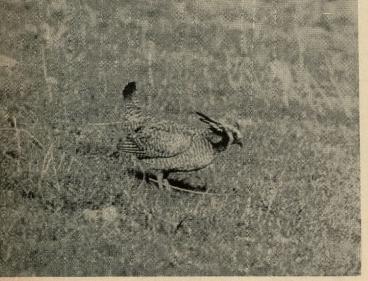


Figure 4



Figure 1

For Your Sight

THE TEXAS Animal Kingdom is putting on the polishing touches for the annual fall showing of the admiring populace.

Some Texans prefer their animal species on the hoof or on the wing. They like them for the memory of what they see as they drive along or prow. through woods and field. Or for the treasured photographs—movies or stills, black and white or color.

Some Texans like to size up their favorite species for the potential sport of hunting. The extent to which they will be accommodated this fall is in the process of being determined now. Prospects are fair. Wildlife generally is struggling to overcome the devastating effects of the drought which still lingers in some areas.

Figure I—The mighty buck shows his regal rack now encased in velvet. He will wear this adornment until early fall.

Figure 2—The inevitable cotton:cil is reported chuncant in many parts of the state, particularly in East Texas where many persons consider rabbit, properly browned and served with generous gravy, a delizacy.

Figure 3—With a telescopic lens or powerful binoculars, a nature lover might get this closeup view of the graceful Canadian honker. Come mid-

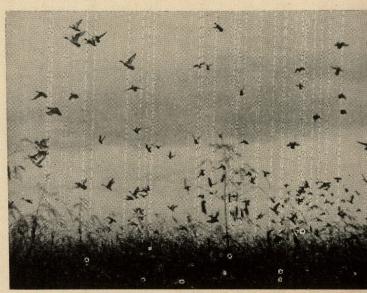


Figure 5

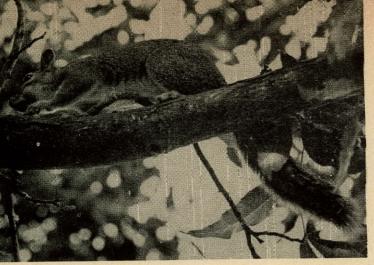


Figure 10



Figure 9

-Gun and Camera

November, the goose hunters will be locking for this kind of target, using number two shot or dcuble O buck for the lure,

Figure 4—Among the rarer sights in Texas is the prairie chicken. This cock was caught in the lens in a Panhandle field. He was performing on the booming grounds, grooming for a possible light with an adversary and always trying to impress the opposite sex.

Figure 5—This feathered paradise raises the femperatures of waterfow devotees—whether they are armed with guns, cameras or field glasses. Preliminary reports indicate that this scene will be deplicated many times in Texas this fall.

Figure 6—Here is Mr. Turkey Gobbler, wild turkey dandy, himself, strolling in his favorite Central Texas habitat. This game big bird has had two or three poor hatching years and this year is counted on to bring a comeback if the species is to be preserved.

Figure 7—On the move is the fleet antelope snapped here gallop ng across a Big Bend area field. This remarkable photograph shows distinctly that this is a doe because the male has a black patch along its jaw.

Figure 3—Bobwhite quail, a male and female in this setting, usually absorb a substantial part of Texas junting pressure. Texas ord narily has an abundance of the swift game birds.

Figure 5—Zooming over the Rio Grande Valley brush country, white wing doves have provided a distinctive fall sport for Texans for many years. This year's crop is watched with grear interest because the birds have been in scant quantity and because their nesting areas in the citrus trees were badly depleted by a 1951 spring freeze.

Figure 10—The irresistible squirrel scampers around a good part of Texas, providing gun or came a targets for thousands and always entertaining the youngsters in the parks. It is a tremendous source of wild game food in many areas and is so plentiful in some sections that the will little animal is fair prey the year around.

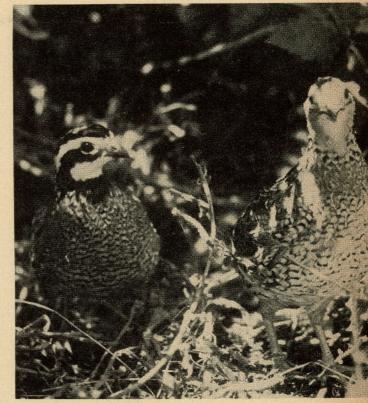


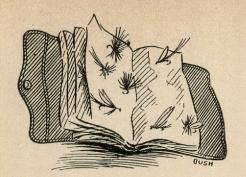
Figure 8



Figure 6



Figure 7



Fly Rods

FLY FISHING has indeed an ancient and honorable background. Unlike the rest of our presentday outdoor sports, fly fishing has come down to us through the centuries comparatively unchanged. Moreover, it antedates all other sports, with the possible exception of archery. Wing shooting, for example, is quite young in years, when compared with fly fishing. While gunpowder was invented by the Chinese at some undetermined date many hundreds of years ago, its use in warfare was not well established prior to the fourteenth century and fowling pieces were not in common use until about a century later.

By comparison, consider the origin of fly fishing. The first book on the subject to be written in the English language was done by a woman, strangely enough—a prioress in a nunnery in England, Dame Juliana Berners. She titled it "Treatise on Fysshynge wyth an Angle" and she wrote it sometime during the twelfth century. But this was by no means the first written account of the sport. In ancient Macedonian literature, some 300 years before the birth of Christ, there appears an account of fishing with artificial flies, composed of black wool and a red cock's hackle, in the

waters of the Nile. Unfortunately the account does not give us any data on rods, tackle and methods, but the unalterable fact remains that those old boys actually were fly fishing at that early date.

The fly rod underwent most of its early development in Great Britain. It is doubtful that there is a wood that grows which has not, at one time or another, been tried out as a material for fly-rod construction. Gradually, however, the selection of the early rod makers narrowed itself down to lancewood and greenheart. Until comparatively recent years-and by "recent" I mean the past 30 or 40 years-these two woods were held in high esteem by British anglers. Throughout the angling literature of Great Britain prior to 1915 there is constant mention of "the sweetness of greenheart" for casting a wet fly.

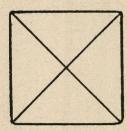
To an American, however, must go full credit for the idea which revolutionized the art of rod building—a man named Samuel Phillippe who lived in Easton, Pa. Phillippe was a gunsmith and a maker of fishing rods. As is true in most things of this sort, there are many claims concerning the builder of the first rod of split bamboo cane. Some writers attribute the honor to a British rod builder, Aldred by

name, who lived and worked in London and who attempted to construct satisfactory rod tips or "tops," as he called them, of sawed-out sections of bamboo. His method, however, was faulty as he cut his pieces from the

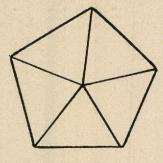
By JOHN ALDEN KNIGHT

smooth portions of the cane between the nodes and then glued these together to make the complete section. These did not last very long in active service and the idea was abandoned. That was around 1844 to 1846.

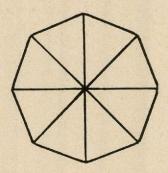
Reliable British and American writers, such as F. G. Shaw, Dr. James A. Henshall, and Dr. George Parker Holden, after considerable research into the matter, have handed the laurel wreath to Samuel Phillippe who began his experiments with split cane not later than 1845. The probabilities are that he had done some work along this line prior to that time (eyewitness reports from visitors at his shop indicate that his technique with this form of construction was quite well developed by 1845) but we have no documentary testimony to that effect.



Cross section of a 4-strip assembly of a rod section.



Cross section of a 5-strip assembly of a rod



Cross section of an 8-strip assembly of a rod section.

in America

In 1851 a London firm, no doubt wishing to improve on Phillippe's method, turned out for the market "rent and glued-up" cane rods, but

(Editor's note: Who but John Alden Knight is better qualified to present this most important history of the fly rod in America? Mr. Knight's influence in the angling world has been felt wherever men fish. He was responsible for the famed Solunar Tables, the Mickey Finn, the parabolic rod, the flat-bodied nymph and a host of other modern fishing tackle innovations.)

this firm cut the strips so that the hard outside enamel of the cane was

on the inside of the rod. Of course, you know what happened to those creations. Those hard glued-up cores actually functioned as fulcrums over which the softer fibers were bent and stretched while the rod was in use, rendering breakage inevitable.

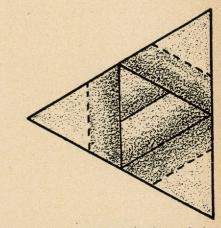
Phillippe made his rods variously. Some of them were of mixed woods while others were all of split bamboo. One of these which was on exhibition at the World's Columbian Exposition in Chicago in 1893 was described as being 11 feet four inches long, weighing exactly eight ounces. The rod was made in four sections, the butt being of ash and the upper three sections of split bamboo. Ferrules and reel bands were of brass.

One of Phillippe's rods (which we

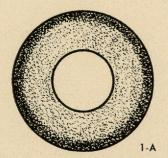
have been assured by one of his grandchildren was one from his own fishing kit) is now owned by The Anglers' Club of New York and is on exhibition in the club rooms on lower Broad Street, New York City. At the time this rod was presented to The Anglers' Club, I was functioning as chairman of the house committee, so I had ample opportunity to look it over before it was locked away in its exhibition case. This rod is three-piece, all of split bamboo, and about nine feet long, weighing about six ounces. The reel seat is of metal, nickel plated, as are the ferrules. The butt is somewhat on the heavy side and the taper is quite uniform to a light tip, making it definitely a "top-action" rod, but it could very well be used for fly fishing as we do it today. So far as we know, all of Phillippe's rods were made of Calcutta cane which seemed to be the favorite material of rod makers until around the turn of the century.

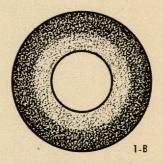
Calcutta bamboo, however, is a difficult wood with which to work. As you probably know, the strength of the cane lies in the outer skin, the inner fibers being rather brittle and pithy. Thus, once the strips are cut and glued together no further work can be done on that section. Bamboo does not run uniform in quality. A Calcutta rod, no matter how carefully cut to pattern and assembled, does not necessarily conform to the desired action-pattern of the designer. It was for this reason that a really good fly rod, back in the early nineteenhundreds, was regarded as a pearl without price by its fortunate owner.

• Continued on the Following Page.



This is a cross section of the George Parker Holden 5-strip assembly. The central triangular strip is of double-built construction. The three outer triangular strips are glued to the central strip with the hard areas inside the rod section. The completed section is then planed down to hexagonal form with the corners slightly rounded.





1-A shows a cross section of a Calcutta bamboo stick. Note that the hard fiber, as indicated by the darker shading, lies next to the outside skin and is not deep.
 1-B shows a cross section of a Tonkin cane stick. Notice that the hard fiber is almost twice the width of that in Calcutta cane of the same diameter.

It did not take the rod makers long to decide that Calcutta cane was not the last word in bamboo for rod construction. They tried other types of cane, eventually settling on Tonkin cane. This is indeed tough stuff. It comes from the Tonkin province of Indochina. The choice cane is grown on the windswept slopes facing the sea. The bamboo bushes are not allowed to become too large and the canes, tempered by the strong winds, are cut close to the ground when their lower ends are not more than two or three inches in diameter-hence the term "butt-cut" cane.

Tonkin cane, unlike Calcutta, has little or no strength in its outer skin, in fact the outer skin is a thin, brittle layer which is scraped off once the rod section has been assembled. Directly under this outer skin, however, is a rather thick layer of tough fiber, almost twice the thickness of that of a Calcutta stick of like diameter. Rod sections which have been glued up from strips of Tonkin cane actually can stand considerable "bench work" to alter the flexibility and make the section conform to "action-pattern." Moreover, this bench work (which consists of sanding down or planing) does not seem to harm the finished product, always providing that it is not overdone. With Calcutta cane, which could not be altered after gluing, it was almost impossible to duplicate a fly rod or, in fact, a section of a fly rod which had been broken. Today, working with Tonkin cane, a qualified rod maker can duplicate a rod action so that even the most practiced hand will have difficulty in choosing the original from the duplicate.

One of the earliest rod makers to build and sell split-bamboo rods commercially was Charles F. Murphy, of Newark, N. J. He learned the art from Phillippe, and it was he who originally supplied the famous tackle jobbing house, Andrew Clerk & Company of New York City (predecessors of Abbey and Imbrie), with their splitbamboo rods. These were sold throughout this country and also exported to Great Britain. This was in 1860. It is along about this time that the name Leonard comes into the pic-

ture. While I can find no documentary evidence to that effect, the probabilities are that Leonard learned his trade, at least in part, from Murphy.

With this new technique in rod building, the natural course of development and experimentation was in methods of strip assembly when setting up rod sections. The early rod builders tried combinations of various woods; they built round rods, square rods, even triangular rods of three strips to the section. Some of the rods by both Murphy and Leonard which were exported to England had as many as 12 strips to the section. It gives me quite a smile nowadays when some young salesman in a booth at the annual Sportsman's Show at Grand Central Palace, New York City, shows me "something new" in rod construction-four strip, five strip, laminated, or what have you. Shucks! Those early rod makers tried out all of those things way back in the eighteen sixties, seventies and eighties.

Boiling down all of these trial-anderror attempts to the absolute residue, the rod makers found that the hexagonal or six-strip rod not only was as easy as any to cut and assemble but it turned out better casting performance than other patterns. To be sure, from an engineering standpoint, the round rod is the ideal tool for pre-

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cision casting. A flexible bar tends to bend always against its shortest diameter. A round rod, having no shortest diameter, will bend equally well in any direction. Thus, the round rod is the ideal rod. However, to plane off the corners of a hexagonal rod to make it round means that much of the hard outside enamel of the cane must be removed and this, of course, weakens the rod, so they compromised by sanding off the corners of the hexagonal joints and letting it go at that.

It must be remembered that England was fairly well advanced in the art of fly fishing while America was still a young nation. Conditions on the trout streams of Great Britain, particularly on the chalk streams of the south of England, are radically different from conditions in America. Their streams are deep, comparatively slow-moving affairs, with little white water and plenty of water weed. For the most part, they are not wadable and casting must be done from the bank. The wind blows almost constantly and wind, as you know, tends to knock down your back cast, and this, all too often, results in unpleasant involvements with trees, bushes, and high weeds. Thus, the British angler wants a long rod, nine and a half, ten feet or longer. The extra length eliminates many back-cast difficulties along the chalk streams and allows the caster, who has no choice but to stand among high weeds and bushes, to handle his cast of flies more easily than he could with a shorter rod.

British rod tapers being rather well established, our rod makers worked along the same general lines and it was not until around the turn of the century that American rod makers began to develop their own tapers in the shorter lengths.

Probably the man who has left the deepest footprint in the sands of time, insofar as American rod making is concerned, is H. L. Leonard, original maker of the world-famous Leonard rod. When he learned his trade, rod tapers were pretty much cut to British fashion—long, slow-actioned affairs, all right for the purpose for which they were intended but not practical for American streams.—Pennsylvania Angler.

"Great American Sportsman (?)"

Every outdoorsman knows that the term "sportsman" is one that is sadly abused. It is often glibly bandied about without serious thought as to its real meaning, for it is an appellation of which any person who justly rates it can be properly proud.

"Because a man spends a good deal of his time outdoors with rod and gun does not mean that he is a real sportsman in all the name implies," says Henry P. Davis, public relations manager, Remington Arms Company, Inc. "The true sportsman will lean over backwards to show his fellow outdoormen every consideration and will pull more than his share of the load in every activity designed to better hunting and fishing conditions and outdoor recreation in general.

"Frank Hathaway, Hammond, Wisconsin, newspaper columnist, uses a tar-filled brush in painting a word picture of what he classes as 'The Great American Sportsman'. Of course, it is unlikely that Mr. Hathaway really intends to smear. ALL gunners and anglers with the soot of selfishness, but his satirical summation provides plenty of food for thought. It is a not-too-gentle reminder that we would all do well to take a good look in the mirror of conscience and upon our own recorded actions to see how well we measure up to the qualifications of sportsmanship. Mr. Hathaway's tongue-in-cheek description of 'The Great American Sportsman' follows:

"'Howls that there isn't enough game or fish and then gives out with anguished cries when the cost of his hunting or fishing license goes up a couple of drinks.

"Yaps quite regularly about poor law enforcement, but looks down his nose at anyone who would help the wardens enforce the law.

"'Brags loudly about how he always gets his game birds on the fly and game animals on the run; gazes with obvious scorn on anyone who dares to admit he does otherwise, and then potshoots anything unfortunate enough to get within reach of his shootin' irons.

"Wants more raising of young pheasants, and wants them dis-

Channel Catfish for Ponds

By MARION TOOLE

Chief Aquatic Biologist

WILLIAM H. Brown, Biologist at the San Marcos State Fish Hatchery conducted some experiments in order to determine proper stocking ratios for the introduction of fishes into farm ponds.

In 1950 in the Transactions of the American Fisheries Society, he reported some of his findings. He reported that when 50 channel catfish were stocked to one acre, they would grow to an average length of 18.9 inches and a weight of 33.0 ounces in 18 months. Seventy-five catfish would attain a length of 16.3 inches and a weight of 23.0 ounces in 18 months. One hundred catfish in 18 months were found to have an average length of 15.9 inches and an average weight of 22.0 ounces. These data were obtained by using hatchery ponds.

Recently we received a letter from Mrs. Paul Ellenberger of Canton, Texas. Mrs. Ellenberger states that 75 channel catfish were placed in their new tank on September 30, 1949. Since that time they have caught 41 catfish from



the tank. They caught one or. October 11, 1951 that was 23 inches long and that weighed 31/8 pounds The accompanying photograph shows this fish.

It is interesting to note that channel catfish taken from actual farm ponds are substantiating the data collected by our William H. Brown.

tributed according to his own ideas, but when there is work to be done around the pheasant pens he finds the weather is wonderful for fishing.

"'Stays away from county conservation meetings and also from educational programs of his own rod and gun club, but turns out in droves when the same club sponsors a big feed or has drawing for prizes.

"'Does his bird hunting from a car, and his deer hunting within sight of camp or the nearest highway; then goes home and writes a letter to the editor saying there just ain't no game no more.'

"Does this shoe fit you?"

U. S. Fish & Wildlife Service **Needs Your Assistance**

The U.S. Fish and Wildlife Service is currently investigating the black-.

bird versus rice problem in the Arkansas rice belt. It is important that they find out where the birds are at all seasons of the year and which ones actually invade the rice fields. In order to pinpoint those species and populations of blackbirds actually involved in rice field depredations, some 30,000 blackbirds have been banded or tagged in the Stuttgart-Dewitt area during the last few years.

Since returns from banded birds of this type have previously been very few (1/2 per cent) it is urged that all persons who for any reason have an opportunity to handle blackbirds, especially in the rice fields, check the legs of such birds for metal bands. Each band bears a serial number and return address and when found should be sent to the U.S. Fish and Wildlife Service, Bird Banding Office, Patuxent Refuge, Laurel, Maryland.

Wildlife Groups Meet in Texas

By JACK ARNOLD

EXAS will be host to three major wildlife organizations in Septem-

First, the International Association of Game, Fish and Conservation Commissioners and the American Fisheries Society convene in Dallas, September 8-12. Then, the National Association for Conservation Education and Publicity meets in Galveston, September 21-24.

The first gathering will be of the parent policy-making groups which have a profound effect on game and fish management programs in the United States, Canada and Mexico.

The second meeting will be of a subsidiary unit which has a vital role in helping put the policies into effect.

Attending the parent conventions will be representatives of every state in the Union. Taking a major part in the discussions will be officials of the United States Fish and Wildlife Service, including Albert N. Day, Director, and Clarence Cottam, Assistant Director.

President of the International Association is George W. Davis, Director of the Vermont Fish and Game Service. Chairman of the Executive Committee is Howard D. Dodgen, Executive Secretary of the Texas Game and Fish Commission.

The head of the American Fisheries Society is W. J. K. Harkness, of the Department of Lands and Forest, Toronto, Ontario. The program chairman is Marion Toole of the Texas Game and Fish Commission.

Committee reports to the International Association session will deal with Federal Aid, National Water Policy and National Land Use Policy.

The general subject matter before the various sessions will include:

"Do States Still Own Their Game & Fish?"

"Progress in Game Management in Mexico."

"Basic Laws As They Affect Water Ownership and Use."

"How To Sell a Coordinated National Resource Conservation Program to the Public."

"How Can Wildlife Management Keep Pace With Modern Trends."

"Future Matching and Administration of Federal Funds."

"An Evaluation of Texas Methods of Wildlife Production and Harvest."

"Application of Research in Modern Game and Fish Administration."

"How All Wildlife Organizations Can Best Serve the Overall Conservation Movement."

Everett T. Dawson, Director of Conservation Education and Publications for the Texas Game and Fish Commission, said the Galveston meeting of the National Association for Conservation Education and Publicity will pinpoint:

The great strides being taken nationally in utilizing schools as a medium for showing the relation between the land, the forests, and the waters and wildlife, and in using the schools to generally strengthen public appreciation of the problems of wildlife management.

He said the four-day Galveston session will be devoted primarily to exchanging ideas on different techniques for informing the populace. There will be separate meetings on means of improving dissemination of information through motion pictures, radio, television and newspapers and magazines.

The older states (such as Texas), in the conservation education movement will report on late progress. Great interest will be centered on the states which recently have adopted resource use education programs.

Some states are conducting year around conservation education programs, working through public and private schools, summer camps, adulteducational groups, service clubs and other assemblies.

The latest issue of "The Balance Wheel," official publication of the National Association for Conservation Education and Publicity, carries an illustrated cover stating that "Education Is The Only Weapon" against human indifference to conservation needs.

Texas Trout-

- Continued from Page 19

These 18,500 were raised in the troughs and most were turned into the lake. The remainder are the brood trout, ranging up to four pounds, which Nix still has in the troughs and from which he hopes in the future to obtain his own hatching eggs.

Later Nix decided he could hatch his own trout. So he erected his hatchery building, bought the eggs, and proved his point.

He has successfully hatched two large batches of eggs, one of 300,000 and another of 265,000, and these trout now are well on their way to maturity. He estimates loss at well under five per cent.

The next step in his planning is to obtain eggs from his own brood trout, which he hopes eventually to

Only once has Nix run into trouble in raising his trout. That was when he received a shipment of spoiled eggs. They polluted the water running through the hatching troughs and on through the rearing troughs and killed many young fish.

Nix believes he can produce as many as 1,000,000 trout 12 inches long per year.

That's a lot of fishing. At that rate, over 450 fishermen could catch their limit of six trout from the 30-acre lake every single day of the year!

But those who have seen Nix's troughs filled with thousands of healthy, robust young trout up to 12 inches long, rolling over each others' backs, fighting for choice morsels at feeding time, and have seen the beauty of powerful adults, grown to almost four pounds and two feet in length in less than two years, believe almost anything possible of the amazing Nix-at least if it concerns trout.

Letters to the Editor

Editor:

Lake Texoma has produced some mighty fish but none caused more excitement than the five pound, seven ounce crappie caught by Richard Usher (below) airman stationed at Perrin Air Force Base. The fish was weighed by Mrs. J. G. Nelson of the Flowing Wells resort. The length of the fish was 20 inches and its girth, 14 inches. Milo Shocker, Ed Griffin and Ed Brown, all from Perrin AFB, witnessed the historic catch and validated the size.

John Clift THE HERALD Denison, Texas



Editor:

Why I have not been a regular reader of your good magazine all these years can only be explained by a confessed lack of knowledge that such a book was published.

Fortunately our very efficient local game warden, Mr. Oma Puckett, mentioned it to me, and I signed up for a year's subscription right on the spot. I certainly expect to continue my subscription as long as I can read. I love to hunt and fish and am particularly interested in the wildlife of our great State.

Incidentally, on the back cover of the June issue entitled "Fish Oddities," are illustrated the top minnow, the eel, and the gar. The statement under the eel reads, "Eels of inland lakes and streams are females as the males remain in salt water." This seems to me a biological impossibility. Understand, I do not dispute it but would like to have further explanation. Assuming that most inland lakes are fresh-water lakes, how in the world do the little male eels get back to salt water?

Paul D. Marable Clarksville, Texas (North American Game Fishes by Francesca LaMonte says of the eel, Anguilla rostrata (Le Sueur), "Habits: Spawns in the ocean and dies after spawning. The transparent young work back to coastal waters and enter the mouths of rivers, the females going far inland and sometimes becoming landlocked."

Females cannot develop sexually unless they are in fresh water after which they return to salt water. Gathering at a common breeding place in the ocean, they spawn and die.)

Editor:

I am enclosing a poem I wrote which I thought you might be able to use in your magazine. It is:

LAKE CABIN

A quaint retreat for nice week-ends Where Papa blithely asks his friends; Where Mama grimly cooks the chow . . . A fishless diet of franks or cow . . . On oil stove, wood stove, or smoke heap While wondering where the mob will sleep; And washes dishes, sweeps the dirt, Cold-water scrubs til fingers hurt; And doctors bites and cuts and stings; Kills snakes and wasps and nameless

things;
And chases children from the lake,
Or prays with every swim they take;
Controls herself with all her might,
And counts the hours til Sunday night
When Papa says, "I hate to go;
It is so restful here, you know."

Mrs. Frank J. Mendel 709 N. Queen Palestine, Texas

Editor:

As an interested subscriber to your admirable magazine, I was delighted to see an item in the SAN ANTONIO EXPRESS concerning the planned *Guide to Texas Birds* to be sponsored by the State Game and Fish Commission.

I'm hoping that our West Texas border country's birds like the roadrunner and the canyon wren will not be left out. From spending the summers in my family cottage on the Devils River Country Club grounds here on Lake Walk, I've been an appreciative observer of so very many of our songsters as well as game birds that nest and stay in this small area the whole year around.

The white wing doves are nesting in the tree arbored coves now, and the mocking-birds, scissor-tails, cardinals, Baltimore orioles, Mexican canaries, and several varieties of humming birds—including the ruby throat, are all about us. Several coveys of Mexican or blue quail are nearly as tame as chickens since lake residents feed them grain through the winter months . . .

I'm passing on this information because I thought your photographer or artists might be interested in knowing a place where they would be able to observe these birds more closely perhaps than elsewhere. Our game warden, J. B. Phillips, as well as his wife, are friends of my family, and I feel that it is not amiss for me to say that he has, by personal example, diplomacy and keen personal interest in his job, made our section much more appreciative of wildlife and the need for its conservation.

Miss Edith H. Long La Casita Escondida, Lake Walk Val Verde County, Texas

Editor:

Thanks to your publication, I renewed a friendship by correspondence with a former classmate of mine at Texas A & I College at Kingsville. I hadn't seen or heard of him since 1936 (that's 16 years ago), then I ran across his picture and deer story in the April Texas Game and deer story in the April Texas Game and his wife had sent in the information. I wrote him, and sure enough, it was the same fellow I knew . . .

Wesley Mabrito San Antonio Light San Antonio, Texas

Editor:

We have taken your magazine for several years and certainly enjoy Mr. Orville Rice's very realistic pictures. I also like to paint wildlife, especially quail, doves and upland game birds. I am now 15 and enjoy hunting and fishing better than anything.

I am enclosing a picture of one of my pet cottontails for the benefit of those who don't believe that they can be tamed. I've had this one for three years, and he eats out of my hand.

Wesley Rice 716 N. Grant Amarillo, Texas





BOOKS



FIELD GUIDE TO THE BUTTERFLIES OF NORTH AMERICA AND THE GREAT PLAINS, by Alexander B. Klots. 349 xvi pages. Illustrated. Published by the Houghton Mifflin Company, 2 Park Street, Boston 7, Massachusetts; 1951. Price \$3.75.

This field guide, beautifully illustrated with color paintings of 247 species by Marjorie Statham and with 232 photographs by Florence Longworth, is the best popular field guide on a branch of insect study that this reviewer has seen. It is a member of the new Houghton Mifflin Company "Peterson Nature Field Guide Series" which follows in format and scope the field identification system used so effectively by Roger Tory Peterson in his "Field Guide to the Birds." Mr. Peterson is editing this series. Eventually it is planned that this will embrace all phases of natural history, and the resultant library should prove invaluable to students of biology.

Complete information on the life histories, habits, ecology, life zones, and collecting of all eastern butterflies is provided. The illustrations, which are as beautiful as they are profuse, show many of the specimens in full color, both in adult and larval stages and others in diagnostically clear photographs. As in Peterson's bird guide, similar species are grouped together on each plate for ease in identification. This volume is highly recommended to all who are concerned with the study of insects, either as amateurs or as professional biologists.

WATERFOWL AND THEIR FOOD PLANTS IN WASHINGTON by Charles F. Yocum. 272 xvi pages. Illustrated with 63 photographs and 48 line drawings and maps. Published by the University of Washington Press, Seattle 5, Washington; 1951. Price \$5.00.

To wildlife technicians and wildlife students working in the Northwest, this book will prove an excellent reference volume. Much has been written on the needs, habits, habitat, and food of waterfowl in the eastern and midwestern portions of the United States, but the regional literature for the western states is nowhere near as complete. The coverage of Dr. Yocum's volume is broad enough to embrace a large part of the North American continent, although written, of course, primarily as a source of information on one state.

The text is authoritative and contains a profusion of excellent photographs and drawings by the author for the identification of waterfowl food plants, and a complete set of useful keys for identifying aquatic plants is included. There are numerous range maps and 47 tables, condensing into capsule form many of the data presented in the text. The first half of the book is devoted to a discussion of the waterfowl which breed in or migrate through Washington. This material is more local in nature than the following section on the food plants of Washington, which will apply generally to most of the northwestern states and to the eastern provinces of Canada. Much of this information can be used with equal effectiveness by workers in a much wider territory; some of it is nearly continent-wide in scope.

For professional workers and students of wildlife management, for whom this volume was prepared, it will prove extremely valuable, particularly to those working in the western portions of the continent.

Game Regions • Continued from Page 9

others are not. Available information on restocked animals has shown that overstocked sheep pastures are not desirable for antelope.

Mountain sheep remain on the Diablo Mountain range, but the encroachment of domestic sheep on their range is fast eliminating these animals of the rugged mountains. At one time this species ranged throughout most of the desert mountains of the Trans-Pecos region. Mule deer and the little Del Carmen whitetail deer are native only to this part of the state, as are the Gambel's and Mearns quails. Most of the black bears in Texas are in the Davis, Chisos, and Guadalupe mountains of the Trans-Pecos region.

In 1948, the Texas Game, Fish and Oyster Commission established the Black Gap Wildlife Management Area in Brewster County, about 55 miles south of Marathon. Twenty-eight thousand acres were purchased to provide an experimental management area designed to maintain and increase populations of mule deer, antelope, scaled quail, javelina, and possibly bighorn sheep. An additional area of 18,000 acres have been leased.

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America

"I love thy rocks and rills, thy woods and templed hills." So runs one of our most popular natural songs.

I have seen Americans stand and sing "My Country 'Tis of Thee" with tears of emotion in their eyes and selfish exaltation in their bearing.

But I just don't believe it.

The more I see of our blasted rocks, dammed rills, cut and burned woods, and bulldozed hills the more convinced I am that the average American has no consideration for them whatsoever. Or if he does, he seems apathetically unmoved by the destruction around him.

We love wealth, prosperity, and growth. We take pride in a high standard of living. We thrill to automatic gadgets, deep freezers, and jet planes. We boast of a mechanical, electrical, atomic civilization wrapped up in a package labelled, "Liberty, Democracy, and the Pursuit of Happiness—Handle with Care" there may be a superstreamlined Frankenstein inside. But God bless America. We love it.

However, there is another America. It is under our feet. It is around us. It is the land we live on—the forest, hills, valleys, mountains, and deserts we took from the Indians.

Do we love this America too? Well, maybe. But it looks to me as if we were so dissatisfied with its general appearance and arrangement that we are trying to change everything about it in the shortest possible time.

For, all over the country powerful interests, representing themselves as the majority, are closing in, bent on despoiling and obliterating every last vestige of original America. Although national parks preserve less than one percent of our land in primeval condition, giant dams are proposed for four of them, and lumbermen demand the finest forests in a fifth. National forests provide less than one percent of the nation's cattle-feed requirements, yet embattled stockmen are asking for the forests as their private preserve. Miners and sheepmen want the national monuments. State parks are succumbing to commercial interests. Marshes are drained, lakes emptied, and predators exterminated so that wild-life suffers from unbalance. Each year thousands of acres of timber are indiscriminately hacked and burned, the range is depleted, soil exhausted, erosion accelerated, streams polluted, air contaminated.

Truly, this is a love that passeth understanding!

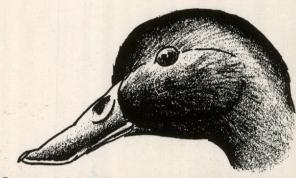
Years ago Americans who valued this original America became alarmed at the rapidity with which it was disappearing. They started a movement for the preservation of natural resources, both economic and scenic, which has ever since been known as Conservation. From it has grown the national parks, national forests, national monuments, the state parks, and all other attempts to preserve some of our national heritage for the use and enjoyment of Americans who love, value, and appreciate the land they live on. Today, there are thousands enlisted in the battle to preserve the resources and character of our country. But they are still woefully in the minority.

The front-line minutemen of the revolution fought at Lexington and Concord for the America they loved. Those historic patriots won against great odds. It can be done again. But don't wait for orders. Start firing Now! Join the present-day minutemen by thinking, talking, reading, and spreading the importance of Conservation.

God bless America—and let's save some of it.

-WELDON F. HEALD in The Living Wilderness.

ODDITIES OF NATURE



DUCKS HAVE AN ALMOST TELESCOPIC EYESIGHT. THEY CAN FOCUS THEIR EYES FOR NEAR OR FAR VISION, AND CAN SEE DIFFERENT OBJECTS WITH EACH EYE.

THE HOODED

MERGANSER LAYS

A MOST PECULIAR

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COMPLETELY ROUND



POLDRIDGE

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THE WOODCOCK'S EARS ARE LOCATED IN FRONT OF ITS EYES.