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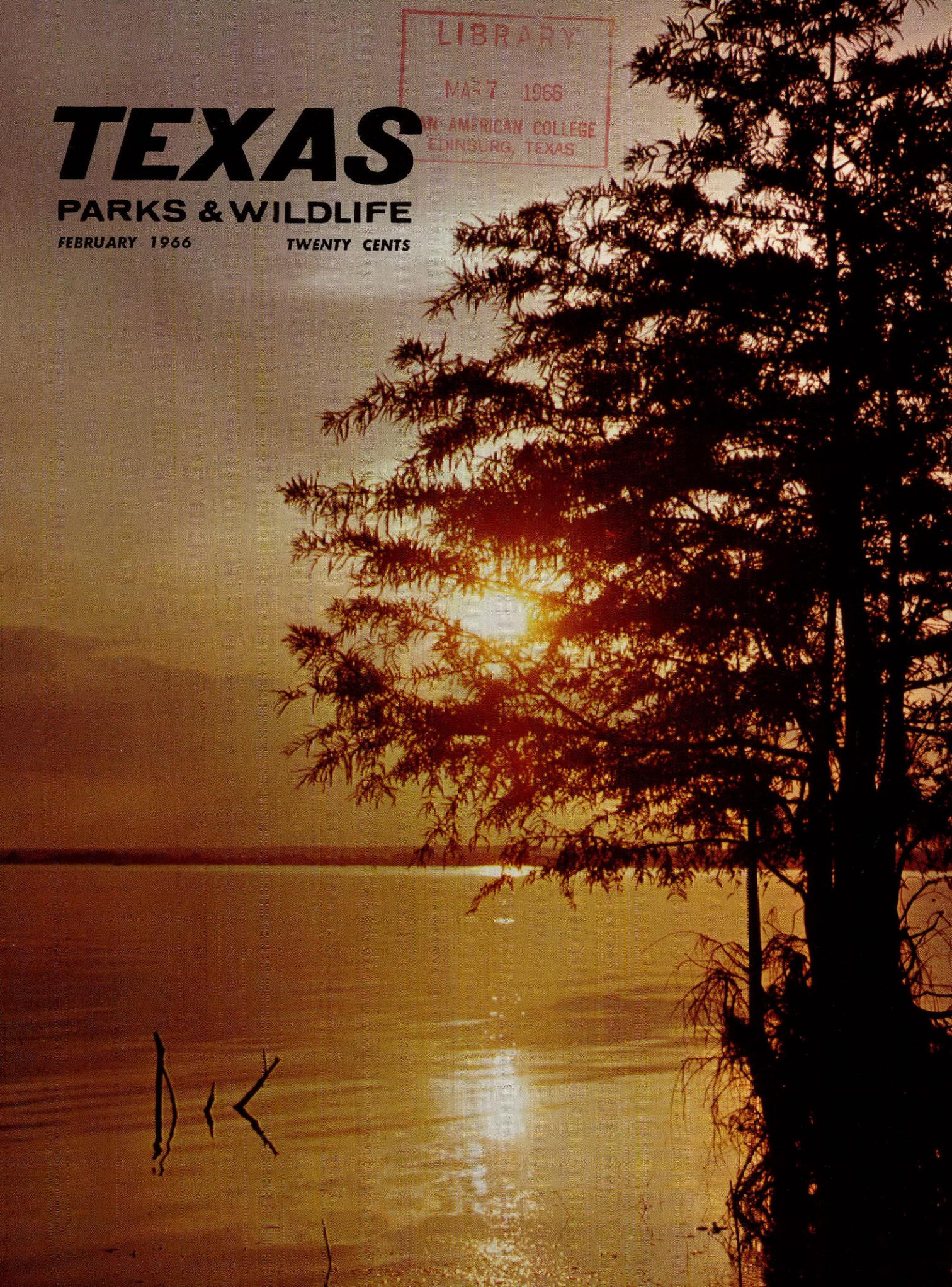
W. AMERICAN COLLEGE
EDINBURG, TEXAS

TEXAS

PARKS & WILDLIFE

FEBRUARY 1966

TWENTY CENTS



DK



Dedicated to the conservation and enjoyment of Texas fish, game, parks, waters, and all outdoors.

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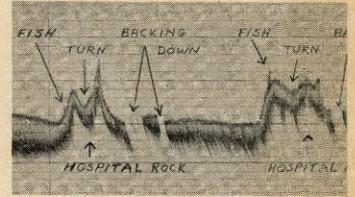
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TEXAS

PARKS & WILDLIFE

February, 1966

Vol. XXIV, No. 2

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Front Cover: Mid-winter may not be the most popular fishing season, but warm days heighten fever. Photo by Leroy Williamson.

Back Cover: Huntsville State Park visitors prove that Texas climate allows winter camping. Photo by Leroy Williamson.

Inside Front: Orange garden spider weaves zipper into his bug-catching snare, then waits for his first victim. Photo by Leroy Williamson.

The Price of Prosperity

MODERN man has advanced technically and economically beyond the aspirations of only a few decades ago. Industrial advances of the past few years have brought some observers to believe that nothing is impossible. And with our space efforts, the innovations and inventions of the future most assuredly will be beyond our present day expectations.

As we make great strides in the highly technical fields, these same advances create environmental problems that must be solved. Many of these obstacles are not as "romantic" as creating a multi-million pound booster for a space probe, but they can seriously affect the astronaut's physical and mental condition before he gets off the ground.

While we are making artificial everything from soup to nuts in this day and age, we will never be able to completely synthesize one important requirement of man's system — relaxation and recreation. It is as essential as adequate clean water, and the lack of it can make you as sick as a vitamin shortage.

Today's hectic ulcer-creating pace of living may have improved man's

lot beyond all expectations, but it is also exerting pressures. Across the nation these pressures are driving executives and laborers alike to all kinds of tension-relieving outdoor activities, from hunting and fishing to birdwatching, rock collecting, and beachcombing. This desire to get away from it all is in turn creating pressures on our recreation resources.

Traditionally, we in Texas are fortunate to have an abundance of "wide open spaces" in which we can seek refuge from the self-inflicted, space-age dilemmas. But a more serious look at our State will reveal that most of our unmetropolitanized range where the "deer and antelope play," is gradually being fenced in, and locked up.

Unless we act now to preserve and develop areas for public recreation, the children of the next decade may never hear the silence of whispering pines or enjoy the excitement of finding a friendly-eyed turtle by a creek.

A minimum estimate of 45 acres of recreation area for every 1,000 persons in a state's metropolitan areas has been suggested as a

national stepping-off place for State Park development. Expanded to Texas proportions, this formula would indicate a present need for about 450,000 acres to be set aside as State recreation areas. To date, only 61,427 acres are included in the State Parks system, and this area is mostly concentrated in five major parks.

However, land area is not the total need. While some specific and more suitable areas will necessarily have to be established as wilderness nature areas, modern developments and facilities are definitely needed. Screened shelters, picnic tables, boat docks, concession buildings, roads, and camping sites are only a few of the necessary developments.

Just as a percentage of industrial income must be rechanneled into development and research, and farmers must turn part of their income back into fertilizers and soil practices to assure future harvests, we must also budget to provide areas in the State where man can escape from his inventions and innovations and regain his stature.

— Editor

Look Out BELOW!

by Gary Todd

WHY PRETTY Judy Handley crawls and climbs through dark, subterranean passages on weekends and during holidays is a puzzle to many of her University of Texas classmates. But Judy likes squirming through small openings, camping out, and getting dirty. She revels in a sporting science popularly known as spelunking.

Speleology is the science of cave study. It encompasses discovery of caves, techniques of exploration, cave survey, photography, geological and chemical composition, origins and development of caves, fauna and flora of caves, and the deposits within. But many, like Judy, do it mostly for fun.

Judy's caving predecessors date from the mid-1800's, and the first organization was founded in France in 1895. Today, the science (or hobby, as amateurs insist) has spread all over the globe. Modern followers in the United States are organized on a national scale, which consists of numerous local organizations, called "grottos." Membership in grottos is as diverse as the caves themselves.

Unlike the University of Texas grotto, most consist of various age groups and professions. Some grottos' rolls include the names of members, too old to climb into caves, who merely retain their memberships in order to see the pictures taken by the younger members.

Wherever caves are numerous, so are grottos, and geological conditions in Texas are good for caving. The vast limestone areas along the Edwards Plateau are spotted with caves and caverns caused by water filtering through soluble rock forma-



*Delicate formations grace
subterranean passageways, but
they often make movement
tedious and slow.*



*Spelunkers are adventure
seekers who enjoy camping,
exploring, and the wonders
of the deep and dark.*





tions. Acetic water dissolves limestone and gypsum, leaving caves in the process. Rain water has a tendency to become acetic when it filters through leaves and dirt. Differences in caves are accounted to variations in the amount of water or the type of formation.

Texas has numerous big caves which are well mapped, many others uncharted, and most likely hundreds still undiscovered. Among the charted caves in Texas, more than a mile long, are: Caverns of Sonora; Indian Creek Cave (near Uvalde); Natural Bridge Cave (near New Braunfels); Laubach Cave (near Georgetown); Longhorn Cavern (near Burnett); and Felton Cave (near Sonora). Frio Bat Cave, also notable near Uvalde, has one room which is 300 x 600 feet; and Fern Cave near Comstock is one of the largest in volume, containing several 100 foot passageways.

To the cynics, spelunkers are people who have more energy than

sense, and who crawl into dark, deep holes for reasons only they know. To the participants, spelunking is a science and an outlet for their adventurous spirit. But to Orion Knox, the president of the University grotto, it is something more.

"I spend more time outdoors on a spelunking trip than I do in the caves," he says. "Half of caving is getting there."

Earlier this year, on a caving expedition in Mexico, his party spent a total of 32 hours hiking between the nearest road and the cave entrance. Orion has his chance for such expeditions on the average of one a month. The tried-and-true caving trip for the University clan is the weekend excursion because it works out best with a rigorous schedule of lectures, examinations, and laboratories.

Contrary to popular belief, most of the University spelunkers are not geology majors. Two of the officers, Judy and Orion, are German and

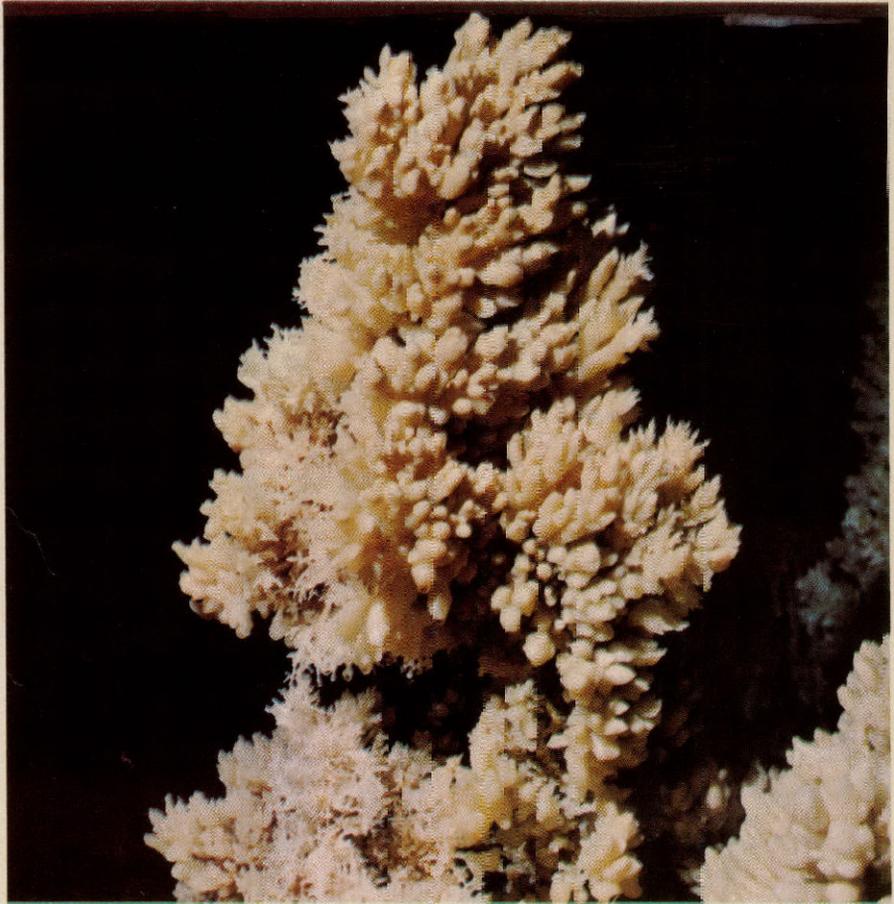
architectural majors. The students are forced to cave on their own time and at their own expense since the University allots neither time nor endorsement of their caving adventures.

The ideal weekend excursion begins as soon as the cavers finish classes on Friday afternoon. They gather their caving and camping equipment, pile it into a car, and roar off to a predetermined limestone wonderland.

"It's best to take only one carload along," says Bill Russell, a dedicated member and geography major. "You can imagine what a rancher would think if two or three carloads of us roared up to his ranch house asking for permission to cave on his property!"

"The best way to find an unexplored cave is to go out to a good limestone area and start asking around among the ranchers," says Orion. In return for exploring on private lands, spelunkers are often

*Unmatched splendor sparkles
for the cavers and lures
them onward and deeper.*



valuable to ranchers as sources of information about the availability of water.

They camp out usually on Friday night near the caving area and spend the whole day Saturday and most of the night exploring, mapping, studying formations and geological content, and collecting specimens of cave fauna and flora.

"Once, in Mexico, we stayed down inside a cave for four days and nights," said Orion, who holds some impressive records for depth. The strenuous weekend usually ends on Sunday evening when the exhausted and dirty explorers return to the campus.

What attracts man to cave is best explained by the individual, although it is commonly attributed to

a natural desire of man to satisfy his curiosity and his quest for knowledge and adventure.

"It's hard to find a place that someone hasn't been before," explains Bill. "It's one of the few areas left where a person can contribute to science without being a specialist."

Judy likes caving because it gives her a welcome change of environment, a vivid contrast to the accelerated college life. "You can't be afraid to get dirty though," she adds.

What spelunkers do exactly in subterranean hollows is hard to pinpoint. There are many activities and fields of interest. Some of the members do a lot of mapping, some explore and sightsee, some make pho-

tographs, others study the geologic structure of the cave. Some do almost all of these things in one day.

The more agile cavers collect specimens of cave fauna and flora. Certain species of amphibia, insects, and fungi are often found living among the beautiful formations.

According to Orion, the best procedure for beginners is to locate a grotto or a group of independent but experienced cavers, and go with them into caves several times in order to learn their techniques. There is much for a beginner to learn about vertical movement in speleology.

"No special skills are needed for caving," Orion quickly adds. "Any-

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by Wayne Tiller

HOW TO MOUNT A RACK



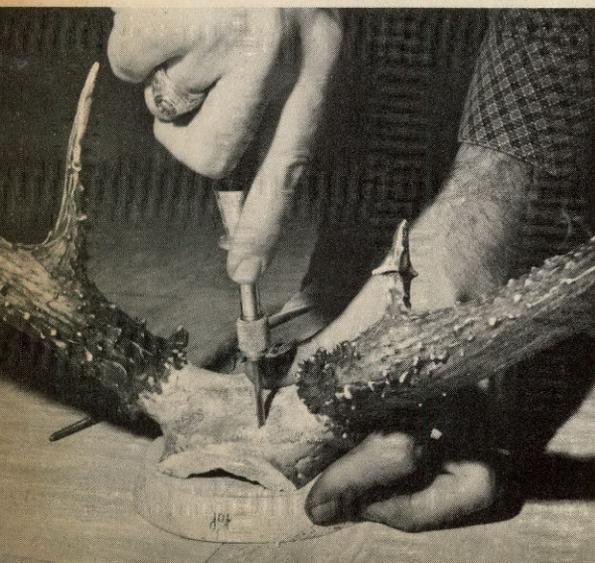
FEBRUARY is the month for hunters' wives to complain about the antlers that were brought home last fall to be mounted, but still lie collecting dust in some dark corner of the garage. When downed, the buck's headgear looked attractive or unusual enough to warrant salvaging, but did not justify the expense

of a full head mount.

As a solution to this quandary, many hunters mount antlers on a plaque for a very attractive, yet inexpensive, display. Several mounting kits are available to supply the handyman with all the raw materials needed for a first class job. However, many of the necessary materials may



1 Trim skull plate to fit wooden disc, slanting the bottom cut to give antlers the proper attitude.



2 After making holes for plaque mount, attach antlers to wooden disc.

already be available around the house.

A plaque blank may be made from a good grade of lumber or purchased already finished from a local taxidermy shop. Other materials needed include a four-inch 1 x 1 wooden disc that is tapered to one side, some plaster of Paris, four long screws, two nails, a dozen or more carpet tacks, and a 12 x 12 square of preserved deer hide with the hair intact or a piece of scrap buckskin leather or felt cloth. Tools needed include a hacksaw, hammer, small drill, screwdriver, and a sharp knife.

The first step in mounting a set of antlers is to trim the bone block that was left attached when the deer was processed. This should be trimmed to a two-inch square area on the bottom with a one-inch or less drop from the normal slope on the front. The angle of the bottom cut will determine the attitude of the antlers when mounted, and the trimmed skull block should fit onto the wooden disc.

When trimmed, drill two holes through the skull for screws to attach the skull plate to the small side of the wooden disc. These holes should not be drilled through the seam of the skull as this may weaken the joint and cause a break.

Then, using the two nails, attach the wooden disc to the center of the plaque, driving the nails only deep enough to hold the disc in position with the large side of the disc against the plaque. While positioned, drill two holes clear through both pieces of wood, one above the other as the finished mount will hang. Later, screws will be placed in these holes from the back side of the plaque to hold the disc in place after the antlers are attached.

After drilling these two matched holes, pull the nails and attach the skull block to the disc, using the holes previously drilled. These screws should be long enough to bite into the disc but not long enough to go through. They should not be screwed too tightly or they might

crack the skull block, especially if it is thoroughly dried.

The next step is to mix up about one-and-a-half cups of plaster of Paris and smooth this over the skull block to make a uniform cap. During this process, don't cover up the antler burrs. Enough space should be left under the burrs to allow the leather or covering material to be slipped under.

Plaster of Paris dries fast and rough edges and other trimming can be smoothed over with a scraping knife. After trimming and moulding, measure the distance between the antlers in preparation to cutting holes in the leather covering. Then being sure to leave about a quarter of an inch of extra distance, cut two holes slightly smaller than the antlers, and cut a slit to the back of each.

After considerable fitting and trimming to obtain a good fit, spread the preserved skin or leather over the plaster of Paris cap and tack it to the back of the block. Stretch the covering tight and wrinkling will be held to a minimum.

An alternate way of getting the covering tight under the burrs is to cut smaller holes for the antlers. Then, working under the covering, tie with a piece of string under each antler burr and then stretch the remainder of the covering and tack to the block.

After stretching and tacking the covering, trim the loose ends off to allow a tight fitting to the plaque. Then, using two screws long enough to get a good bite into the disc through the plaque, firmly fasten the two pieces together using the holes previously drilled through the two pieces of wood.

Finished, the mounted antlers can be proudly displayed in the home or office. The attractive mount is relatively simple and inexpensive when compared to a full head mount. And best of all, it will get those "horns" out of the garage and ease your wife's worries about dust collection. * *

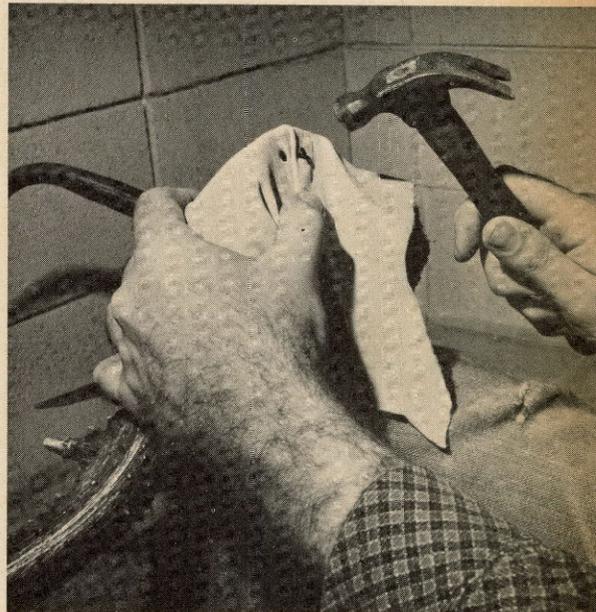
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With antler block attached, mold plaster of Paris around it to form smooth surface.



4

Cut holes in covering, place slits on top, and tack sides to back of wooden disc.



5

Trim edges of covering material, attach plaque, and hang in a place of honor.



Pugnosed Faker

ADMIRED by those who know him well, feared by those who believe his bluff, the hognose snake is a famous little creature. Of the two distinct species found throughout the State, especially in sandy country, both are characterized by a thick, stubby body and a pointed, ridged scale at the tip of the nose. They are also called spreadin', blowin', hiss'n', or puffin' adder or viper, and a dozen or more other colorful local names.

The common hognose snake (*Heterodon platyrhinos*) ranges over the eastern half of the United States from southern Canada to the Gulf of Mexico, east of the Great Plains. In Texas it is moderately common as far west as a line from the mouth of the Pecos River northward through the eastern half of the Panhandle.

In length, most adults are from one and a half to two feet, but a few individuals four feet long have been noted. The wide, rounded head is not distinct from the neck and body; the nose-tip scale is large, triangular and pointed but not turned upward, and the scales are keeled to give a dull, rough appearance.

Coloration is quite variable. Most are brown to gray with a series of twenty to thirty darker blotches down the middle of the back. Smaller dark blotches along the sides alternate with the main markings. Some of these snakes are yellow, tan, red, or almost black and a few cream or almost white albinos have been found. The pattern of blotches may be indistinct or completely lacking especially in the dark gray or black colored ones. The belly is usually mottled yellow or gray with the underside of the tail being lighter than the belly color.

In the Great Plains, from south-central Canada to central Mexico, the common hognose snake is replaced by the slightly smaller western hognose snake (*Heterodon nasicus*). These occur in extreme southern Texas and over about the western third of the state. Three subspecies or races of this species are recognized, but all may be easily distinguished from the common hognose.

The nose-tip scale of the western species is turned sharply upwards, a distinct pattern of thirty to fifty dorsal blotches is almost always present and the belly and underside of the tail are strongly marked with blocks of jet black. Otherwise, in habits and activities, the two kinds are very much alike.

Sometimes confused with Old World vipers, rattlesnakes or even cottonmouths, the hognose snakes are really unique members of the large, worldwide snake family named Colubridae. This family includes most

of our harmless snakes: water and garter snakes, whip snakes, bullsnakes, kingsnakes, rat snakes and many others. Hognose snakes live only in North America and are the only ones here that have elongated ribs in the neck area, similar to the cobra. This structure enables the neck to be flattened into a hood.

The name *Heterodon* means "teeth of different size," in reference to one or two enlarged (NOT poisonous) fangs in the rear of the upper jaw. These teeth are apparently specialized for piercing and deflating the toads and frogs that figure heavily in the hognose diet.

Throughout his range, the hognose prefers dry, sunny, sandy country—prairies, dunes, open sandy woods—as well as sandy stream bottoms or lake shores. Typical of other snakes, hiss'n' adders hibernate during the winter months, usually underground below frost level. About March or April, they again become active, searching for food during the day and taking cover under piles of leaves, rocks or fallen logs at night.

Toads form the major part of their diet, in spite of the strong secretions from the toads' skin which makes them distasteful to many other animals. They also eat mice, birds, small snakes, lizards, salamanders and even worms, insects, fish, and almost anything alive, available, and of the right size. They do not constrict their prey, but simply bite and hold on until the unlucky creature is worn out enough to submit to being swallowed head first.

Mating occurs soon after emergence from hibernation. In June or July, the females lay from six to forty white, oval, thin-skinned eggs, each a little over an inch long. They are buried in soft sandy loam by the female, deep enough for soil moisture to keep them from drying out.

Sometimes the female remains with the eggs, coiling about them, to guard them from danger. This is another unusual trait for a snake and is similar to the nesting habits of cobras.

The young, about seven inches in length, are hatched six weeks to two months after the eggs are laid. Miniature copies of their parents, they are then on their own, to find food, escape from enemy hawks, skunks, and other snakes, and grow to adults if they are able and lucky. Little is known about the details of age and growth in these and many other snakes, but an eight to ten year old hognose is probably in ripe old age.

The best known, most interesting thing about hognose snakes is their elaborate defensive behavior. Crawling slowly along a sandy path, a hognose gives



little indication of being fierce or dangerous. But startled by an enemy, unable to crawl fast enough for escape, he has an act second to none found in nature or on Broadway.

Facing the enemy, he raises his head quickly, draws a deep breath to enlarge his body, flattens his neck into a wide hood, and twists into a tight double-S fighting coil. Sharp hisses, a wide-open mouth, a slowly waving forked tongue, and short jabbing strikes all spell "danger"—IF the enemy believes the act!

Truthfully, it's all sham. Despite all the legends, especially in the rural Deep South, the hissed breath is not poisonous gas, the forked tongue is not a pair of poisonous fangs and, for all the swelling and hood raising, this artful little monster is still not very big. No matter how close the enemy comes, the snake's strikes are always just a little short of the mark and his

mouth is usually not even opened while striking. In fact, your finger will most likely be ignored even if placed in his mouth.

Like any good actor, this thespian also has an encore. Hit or kicked, even gently, by an enemy unimpressed with his diabolical act, the snake abandons all pretense of fierceness. Squirming and rolling tortuously, tongue dragging in the dirt, and seized by spasmodic quivers, he can draw a spark of pity from almost anything. Soon he rolls onto his back and goes completely limp.

Hit again or even picked up and carried away, he remains limp. But try to turn him right side up, onto his belly, and the fakery immediately shows. The snake will quickly curl and twist back over as if to say,

• continued on page 30



by Gary Todd

Display Courtesy Fort Worth Children's Museum



Historic Park Series:

The Alamo, the Darkest Hours

LIGHT PLAYED on polished armor on an early February afternoon in 1836, and brilliant glints flashed with every movement of white-clad Mexican soldiers. The shimmering scene drained the blood from the face of a buckskinned Alamo scout, for San Antonio was on the remote western fringe of Texas, garrisoned by only 150 men, and hardly prepared for a massive attack.

The stunned scout fell back, whirling around to give the warning. In the church tower, a sentinel who closely followed the scout's movements clanged the bell furiously, and the haunting toll gripped the town. The terrified population exploded into a frenzy of action. The air was electric with excitement as the Anglos scurried about, frantically gathering women, children, guns, cattle, and sacks of grain. A small part of the Mexican population fled into the Alamo with the Anglos, but the others who had not already evacuated were in sympathy with Santa Anna.

Colonel William B. Travis, the garrison commander, had not ex-

pected an invasion until mid-March, and his preparations were incomplete. Men and supplies he had requested had not arrived, and none were on the way. There were those in Texas who questioned the value of holding the Alamo, and the fortress was not strong enough to repel an attack.

With hundreds of Mexican soldiers swarming over the streets of San Antonio, Travis began dispatching urgent appeals for aid to other Texas settlements from his Alamo headquarters. Shortly, a blood-red flag was draped from the tower of the cathedral, under the orders of His Excellency. It was in full view of the Alamo's garrison, less than 800 yards away. The red flag was a symbol of the Mexican attitude toward rebels—no mercy, no quarter. The result was a cannon blast from the Alamo's 18-pounder, a signal of hatred and defiance.

Thus, the lines were drawn, the siege had begun. The Mexicans had come to end Anglo influence in Texas. The Anglos had chosen to fight for their rights as Texans, and for their lives.



.....the Darkest Hours

continued

The flag of Santa Anna's Mexico waved over San Antonio after an absence of over two months. On December 14, a band of some 300 Texans had driven the Mexican forces from the city, following months of violence. They took the town with the hope of regaining their constitutional rights granted by the Mexican government of 1824, and they planned to hold the town until an agreement could be reached. The Mexican government of 1824 had promised that Anglo settlers in Texas could enjoy the same rights to which they had been accustomed in the United States. Later, Santa Anna's government had swept away many of those rights, hoping to dis-

courage any American expansion plans.

His forces driven from San Antonio, Santa Anna raged revenge in Mexico City. He was determined that resistance in Texas should be crushed once and for all, and the Anglo influx ended. Early in January, he readied his vast army and, by the 22nd, much sooner than the Alamo garrison had expected, he led them toward the Rio Grande.

General Sam Houston, commander of Texas forces, ordered the Alamo's destruction and the garrison's retreat to Gonzales. Colonel James Bowie was deployed in charge of the operation. Bowie found the garrison half dispersed

and those soldiers remaining in bad morale. Some of the men had gone home, and others had gone with a Texas invasion force to Matamoros. Evaluating the situation carefully, Bowie determined that the Alamo could and should be held against the pending invasion. In a letter dated February 2, 1836, addressed to Governor Smith, he explained his attitude, stating that the Alamo would be a good stronghold from which to repel Santa Anna's march toward the Sabine.

According to Bowie's records, the men worked long and hard, their morale lifting along with the strength of the fortress. They gathered ammunition, supplies, horses, and information from the surrounding area. Many of the Alamo's 33-inch thick walls were strengthened, and facilities were built for cannons. Inside Travis accumulated 14 small cannons and a limited amount of powder and cannon balls. The industrious Texans mounted three cannons on the roof of the chapel and placed 11 more in other strategic places. And the gap on the southeast wall was filled with a stockade.

On February 3, Colonel Travis arrived leading 30 men from eastern Texas settlements, and Colonel David Crockett and his Tennessee Mounted Volunteers arrived on February 8. The air stirred with excitement and defiance for the Mexicans, preparations moved swiftly, and determination to hold the Alamo rose higher and higher.

Various reports that Santa Anna's forces were approaching the Rio Grande drifted in to the Travis-Bowie command, but they were not confirmed. One reported His Excellency crossing the Rio Grande on the 16th, and another, on the 20th, that the invaders were plunging deeply into Texas.

Meanwhile, Santa Anna urged his men nearer and nearer San Antonio, reaching the Medina River, less than 20 miles away, on February 21st. That evening, the Alamo defenders attended a fandango in the town.

On the morning of the 23rd, much to the surprise and dismay of the curious garrison, many Mexican families began evacuation. Someone

had passed the word to them that the invaders were poised just outside town. Travis became concerned, and moved a sentry to duty in the church tower and sent out scouts.

Once the alarm had been tolled and the defenders had taken refuge in the fortress, the Mexican army marched into the town, mounted cannons on the roof of the cathedral, and began almost constant bombardment of the fortress Alamo. On the 26th, they tried without success to divert the Alamo's water supply.

On the 24th and 28th, Travis sent messengers with urgent pleas for men and supplies, written in the "victory or death" spirit. The only results came on March 1 in the form of the entire able male population of Gonzales — 32 men — who rode through the Mexican lines to enter the ill-fated Alamo. On the ninth day of the siege, Colonel Bonham, who had been dispatched to Goliad for aid, returned through the lines to report sadly that no help could be expected from that quarter. On March 5th, Santa Anna decided to attack the next day, fearing that reinforcements would come to the Alamo, and he moved accordingly.

Meanwhile in the fortress, Travis was gripped in depression, frustration, and exhaustion. Feeling that no force would arrive in time to save the fortress for Texas, he called the defenders together and explained their plight. Reportedly, he then offered them a chance to escape or surrender at will, an offer which only one of them accepted. The men stayed, knowing the merciless Mexican way with rebels. It was a fight to the death, and they knew it.

The dread attack was sprung at dawn Sunday, March 6. Mexican buglers sounded the haunting "*de-guello*," the call for no mercy. The determined defenders scrambled to their posts as the attackers sprang from three sides carrying muskets, bayonets, ladders, axes, and crowbars. The attack was repulsed twice and hundreds of the enemy were killed or wounded before the breakthrough at the north wall.

Their defense penetrated, the defenders retreated toward the con-

vent area which allowed hundreds more bayonet-wielding Mexicans to pour inside.

The defenders fought with primitive muzzle-loaded rifles, ramming in each volley before firing. With their ammunition exhausted, they fought on desperately in hand-to-hand combat, using their rifles as clubs against overwhelming numbers. In the end, they were overpowered and slaughtered to the man by a seemingly unending rush of Mexican soldiers.

Travis was one of the first Texans to die, killed early in the attack defending the north wall. Bowie, ill during most of the siege, reportedly was bayoneted later, on his cot in the chapel.

Individual heroics were lost forever in the confusing melee. There were always too many Mexicans for the struggling, gasping defenders. The end came by 6:30 a.m., a victory more costly to Santa Anna than most defeats.

It was finished. The Alamo had fallen. Santa Anna turned eastward, staggered by the determination of the defenders and the astonishing toll they took.

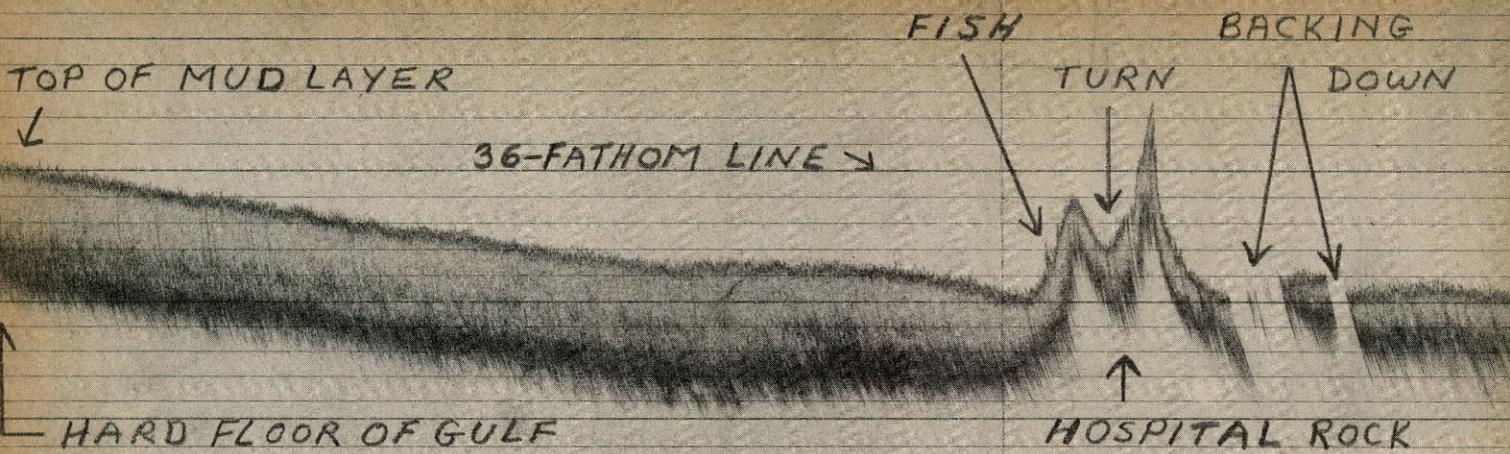
The smoldering Alamo left in his wake stands today as a memorial to its defenders and their momentous courage.

Note:

Today, the Alamo, actually the chapel of the Mission San Antonio de Valero, stands to remind Texans of the price of independence. Located in the heart of San Antonio, it commands the admiration of natives and visitors alike. Other than the chapel, a museum building, a cenotaph listing the famous fighters, and a library are found on the hallowed grounds.

The Alamo is owned by the State of Texas as a state historical site, but it is cared for and maintained entirely by the Daughters of the Republic of Texas.

When making a tour of the historical areas of Texas to trace the State's history, the Alamo is truly the highpoint of the trip. Any visitor, regardless of his residence, will follow the battle cry of the Texas army of ages past and "Remember the Alamo." * *



Snapper Snooper

by Dan Klepper

SAN ANTONIO EXPRESS NEWS

BRIGHT streams of moonlight spread a cold light across the gentle swell of the sea as the *Janice*, a 65-foot, steel-hulled, snapper boat, plows her way at 11 knots toward the offshore banks.

Her fishermen doze in air-conditioned comfort in compartments below. They will be awakened before daylight as the *Janice* reaches her destination and the built-in alarm clock, the anchor cable, rattles over the bow and disappears into the blackness of the Gulf.

The fishermen will stumble sleepy-eyed on deck and automatically reach for a stanchion or the bulkhead to steady themselves before lining the rail to fish.

Then, with the moon still high in the sky, they will lower squidbaited hooks into the deep water, and the whirring sounds of the electrically driven reels will fill the morning air as red snappers are unceremoniously hoisted to the surface and flopped on deck.

But before any of this fishing action can take place, the "banks" have to be located. These lumps of mud-covered rock that rise above the floor of the Gulf attract and harbor schools of fish—snappers, groupers, amberjacks and scamps near the bottom, kingfish, dolphin, sailfish and perhaps a giant blue marlin nearer

the surface.

The rocks, several of which are found approximately 40 miles offshore in the Port Aransas area, are not always easy to locate. There are no signposts in the Gulf, no buoys marking the reefs, nothing but a broad expanse of water from horizon to horizon.

Since the rocks are beneath the surface of the water, one must look below the surface to find them.

In the wheelhouse of the *Janice* a piece of equipment called a fathometer clicks steadily as the boat moves across the sea. A needle whirls around and around, marking a sheet of paper with small black lines.

As the piece of paper grows longer, a "picture" of the Gulf is formed. It shows a relatively shallow, flat bottom with a gradual slope.

The depth of the Gulf from Port Aransas seems to drop about one fathom a mile up to the 100-fathom curve. Then the water gets deep rapidly. One fathom is six feet in depth and is represented by a horizontal bar on the chart.

The mechanically produced picture shows the hard floor of the Gulf topped by a thick layer of mud. And, perhaps more important, it shows schools of fish; not as distinct fish shapes, but as black clouds or

streaks.

The *Janice*, after leaving Port Aransas at midnight, arrives 40 miles offshore at Hospital Rock a little after 4:00 a.m. Just as the fathometer begins marking the rising edge of Hospital, a small shadow appears halfway up the side of the rock.

"That's fish," remarks the *Janice's* captain, Johnny Moore. He spins the big wheel of the boat, circles and drops anchor, letting the current carry the boat back over the vicinity of the shadow.

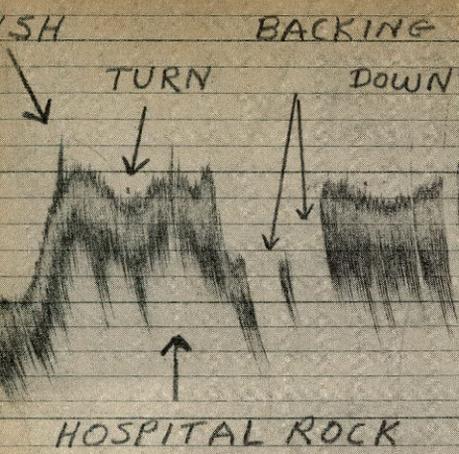
Fishermen quickly line the rail and lower their baits. On the end of each line are two squid-baited hooks and two eight-ounce chunks of lead.

A full pound of lead is needed to combat the strong currents and allow the baits to sink to the bottom.

The tap, tap, tap of fish pecking at the bait is not long in coming. The fish the fathometer had marked are snappers, and they continue to feed on the squid-covered hooks until well after daylight.

By the time the fish quit biting, the fishermen have hauled approximately 350 pound of snapper aboard.

Red snappers, highly prized for flavor and fish of commercial value, are not restricted to deep water. They often are taken from the oil rigs off Padre and Mustang islands,



This fathometer "picture" shows the bottom of the Gulf of Mexico starting on the left as a flat, sloping floor. Each of the horizontal lines represents one fathom (six feet) of water depth. Hospital Rock is in about 39 fathoms of water and is surrounded by a "hole" caused by currents scooping out mud at the base of the rock. The hole on one side is 45 fathoms in depth. The "picture" of the rock itself will be distorted on the fathometer, depending on the speed of the boat. The faster the boat travels over the rock, the more narrow the rock becomes. As the Janice approached Hospital, a school of fish was recorded on the side of the rock. The Janice made a sharp turn (the dip in the chart) off the rock, skirted the edge of it (the sharp peak), then backed down to anchor. The fathometer will not record as the boat is backing down. With the anchor embedded in the mud, the boat was allowed to drift over the fish. When the fish quit biting, the Janice went in search of more fish. The boat circled and approached the rock from another angle. The fathometer registered another school of fish on the edge of the rock and the Janice turned, backed down, and anchored.

and it isn't too unusual to catch one from jetties or the Parks and Wildlife Department's artificial reefs.

But the greatest quantity of the fish is taken in the deep waters of the Gulf around the submerged rocks. The depth of the water will range from 180 to more than 250 feet.

The job of hand cranking one or two fish, even small ones, plus a full pound of lead, for yard after yard through the water soon takes on the



aspects of work.

For that reason reels on some snapper boats have been equipped with electric motors. Instead of turning a reel handle for hour after hour, the fisherman pushes a button and lets the motor do the work.

Even the hooks the snapper fisherman uses are specialized for his sport. They have a point that turns toward the shank. When a fish is hooked, it is not likely to become unhooked.

This allows the snapper fisherman to catch more than one fish at a time. If he is using two hooks, which is standard, he can get one fish on, then wait until something takes his second bait before hauling his catch to the surface.

Snapper fishing seems to appeal to all ages. On board the Janice on this particular day are 22 fishermen,

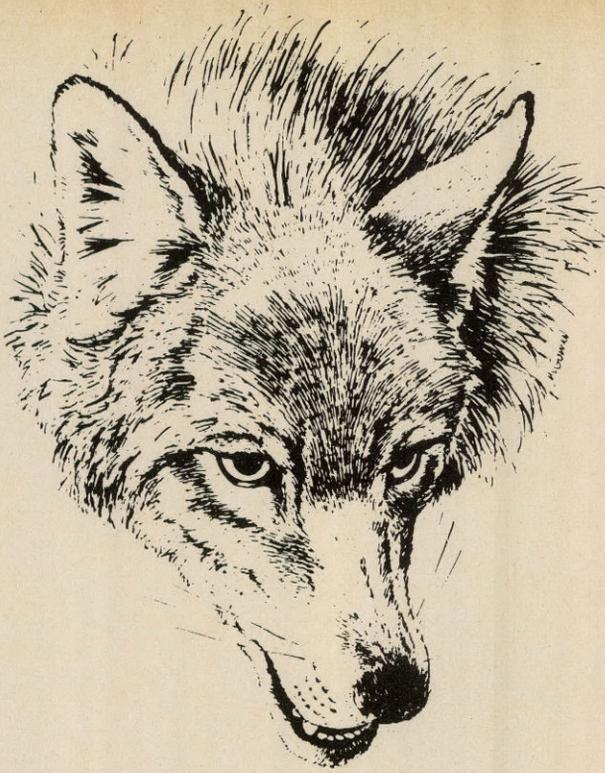
ranging from a 12-year-old boy to a gray-haired grandmother.

During this excursion they will catch an average number of fish for a trip that starts at midnight and ends about 16 hours later. They will bring approximately 550 pounds of fish back to port.

Their catch includes three or four amberjacks, the largest of which weighs 47 pounds.

Whether they know it or not, a little gray box on the wall of the Janice's wheelhouse has as much to do with their success as the very act of reeling the snappers to the surface, because to catch fish, one must first find them.

The little gray box with its whirling needle shows you where to drop your hook, and is definitely a necessary part of fishing gear needed on the Texas coast. * *



Wildlife Cleanup Corps

by L. D. Nuckles

HOUSEKEEPING chores to keep Texas clean, represent one of the biggest jobs facing Texans today. Massive clean-up campaigns are organized and even the smallest child is liable to confront you with the admonition, "Be a Beauty Bug, not a Litter Bug." If nature didn't have its own "Sanitary Corps," the clean-up job would be such that we couldn't even begin to comprehend its magnitude.

Early morning travelers along the highways of Texas see the broken bodies of countless rabbits, raccoons, armadillos, deer, and other animals who move at night. Nature's creatures have not yet learned to cope with man's high speed methods of travel. Small vegetarians, usually rabbits, come out on the roadways to eat the tender young shoots of grass growing there. When blinded by the lights of an approaching car, a futile attempt to flee is often in the wrong direction. Nocturnal scavengers, such as opossums and raccoons, come out to feed on the rabbit carcasses, then they themselves become traffic victims.

Deer, presenting a definite hazard, are killed in the same way. They seem to be attracted to the roadway in search of tender vegetation that has not been grazed by livestock.

Although there appears to be no solution to this slaughter on our

highways, nothing is ever wasted by old Mother Nature. The search for food by all organisms, including man, goes on forever and every animal that dies contributes to this neverending cycle.

All forms of wildlife that consume the bodies of animals they do not kill are known as scavengers. Their work is not attractive and is somewhat repulsive to many. Nevertheless, without them the whole world would become untenable. Scavengers are at work every hour of the day and night. Their unceasing search for food goes on in the sea, in freshwater lakes and streams, and in the woods. Overhead, a constant patrol is maintained by birds with telescopic eyes and tireless, soaring wings.

In most areas, the bodies of the smaller animals on our highways will have disappeared by noon and larger carcasses, such as deer, will be well on the way to complete removal, although human highway crews do remove many carcasses.

The better known members of nature's clean-up crew—the buzzards, crows, and ravens—go to work each morning and quickly assist in the removal of the evidence of the night's carnage.

They become so engrossed in their feeding that they will wait until an approaching automobile is al-

most on top of them before they scatter to yield the right-of-way to the vehicle. Once in a while, one of the crew will be too slow and will add his own body to the feast when he is hit by the car. The remaining scavengers return to the job and readily accept the addition of their recent dining companion's remains as a part of the menu.

There are two vultures found in Texas, the turkey buzzard and the black buzzard. The turkey buzzard with its red head, slim tail, and wide soaring wings is easily identified. The black vulture has a shorter, square tail and shorter wings. His flight is more labored due to his smaller "sail area." The young of the turkey buzzard have black heads and are easily confused with the blacks.

Both Texas buzzards have naked heads, as do most vultures. This prevents the formation of crusts of their noxious foods on the head and neck feathers.

These well-known scavengers of the air are joined by some hawks, owls, gulls, blue jays, carrion flies, and the like. In South Texas, the Audubon's Caracara, an attractive long-legged hawk, also enjoys an occasional tidbit from the road. In spite of fierce eyes and haughty bearing, he is just another scavenger

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A Tree

LONG BEFORE Joyce Kilmer wrote his poem reminding the world that "Only God can make a tree," man was building his ships and his guns and his homes from the oak, walnut, and pine. Wildlife alone accepted and used the tree just as God provided it. Man had to destroy to make his various implements of war and peace.

When the lure of Yellow Gold called men to Alaska and the Yukon, and Black Gold gushed from holes in the valleys and prairies across the nation, man answered the call of wealth with scarcely a thought that the wagons he used, the shafts he sunk underground, the derricks that rose above the ground, all were dependent upon the Green Gold of the forests.

Many animals are dependent upon trees for their food and shelter. In one way or the other they use every portion of a tree—the leaves, heartwood, sapwood, cambium, inner and outer bark, and the roots.

An unofficial poll was recently taken among game biologists of the Parks and Wildlife Department to ascertain, in their opinion, what five trees were most used by wildlife. Without exception the number one honors went to the oak family. For browse, mast, and shelter, it seems oaks produce more benefits than any other tree.

Live oak, white oak, red oak, and black oak, more than 50 varieties grow in Texas, all valuable to wildlife.

The biologists then reached a point for speculation on the other four trees. Their list included the yaupon, dogwood, cedar, elm, sweet-

gum, pine, mulberry, locust, pecan, hackberry, and the bois d' arc, depending on the species of wildlife uppermost in the mind of the individual. And considering location, size, type of wood and local demand, one could scarcely be called more or less important than another, for all have their uses.

As for man's uses, a comprehensive list of tree products and their derivatives would run into many pages. A tree gives us lumber for homes and buildings, hardwood beautifully grained for furniture, timbers for boats and ships, fuel, tools, and posts. Processed timber products are found as dye, tannin, pulpwood in paper, varnishes, soaps, paints, pitch, shoe and floor polish, ink, wax, camphor, explosives, sugar, syrup, and disinfectants. The chemicals and by-products manufactured in the industry would run into the hundreds or perhaps thousands.

Today, in contrast with saying Merry Christmas with an ornamented tree, man has evolved from pre-history when he picked up a tree-limb club to defend himself against wild animals, to molding the spruce-veneer nose cone of the Polaris missile, presumably to defend himself against another form of predator.

The eight major forest areas in the United States have approximately 845 different kinds of trees, excluding certain hybrids and varieties, composed of 222 genera and 69 families. There are 57 oaks, 33 willows, and 34 pines.

The Texas Forest Service at A&M University is currently conducting a search for the largest outstanding

examples of each tree species within Texas. Almost 30 species have been selected by that body, and 18 of these have received national recognition in the American Forestry Association's Big Tree Contest. Texas has 175 species of trees known to be native within its borders.

No other tree in the United States will compare in size with the giant redwoods of California, but Mother Nature had herself a laugh when she provided such a mammoth, then did an about-face and made the redwood an undesirable tree for even a bird. A secretion from the bark of this species is an effective insect repellent, and no hungry bird will linger long where there are no life-sustaining insects.

A tree is more than just a tree! It's a living, breathing gift of God. Man may enjoy it in good health, and swallow its healing juices when he is sick. It will house him throughout his life, then accompany him as the casket to his grave.

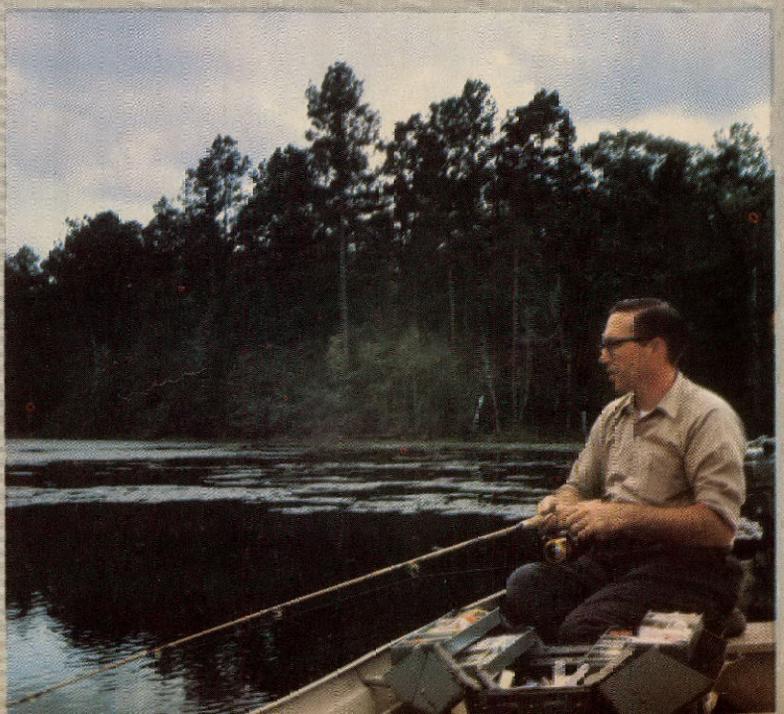
It stands, waving gently to passersby, displaying its beauty, strength, and magnificence. No bird is taxed or charged a rental fee, no squirrel is evicted, no wild turkey is refused an acorn. Beneath its boughs is a place to rest and hold the hand of someone dear, and although destructive as it is, many a weathered trunk displays crudely carved initials encircled by a heart.

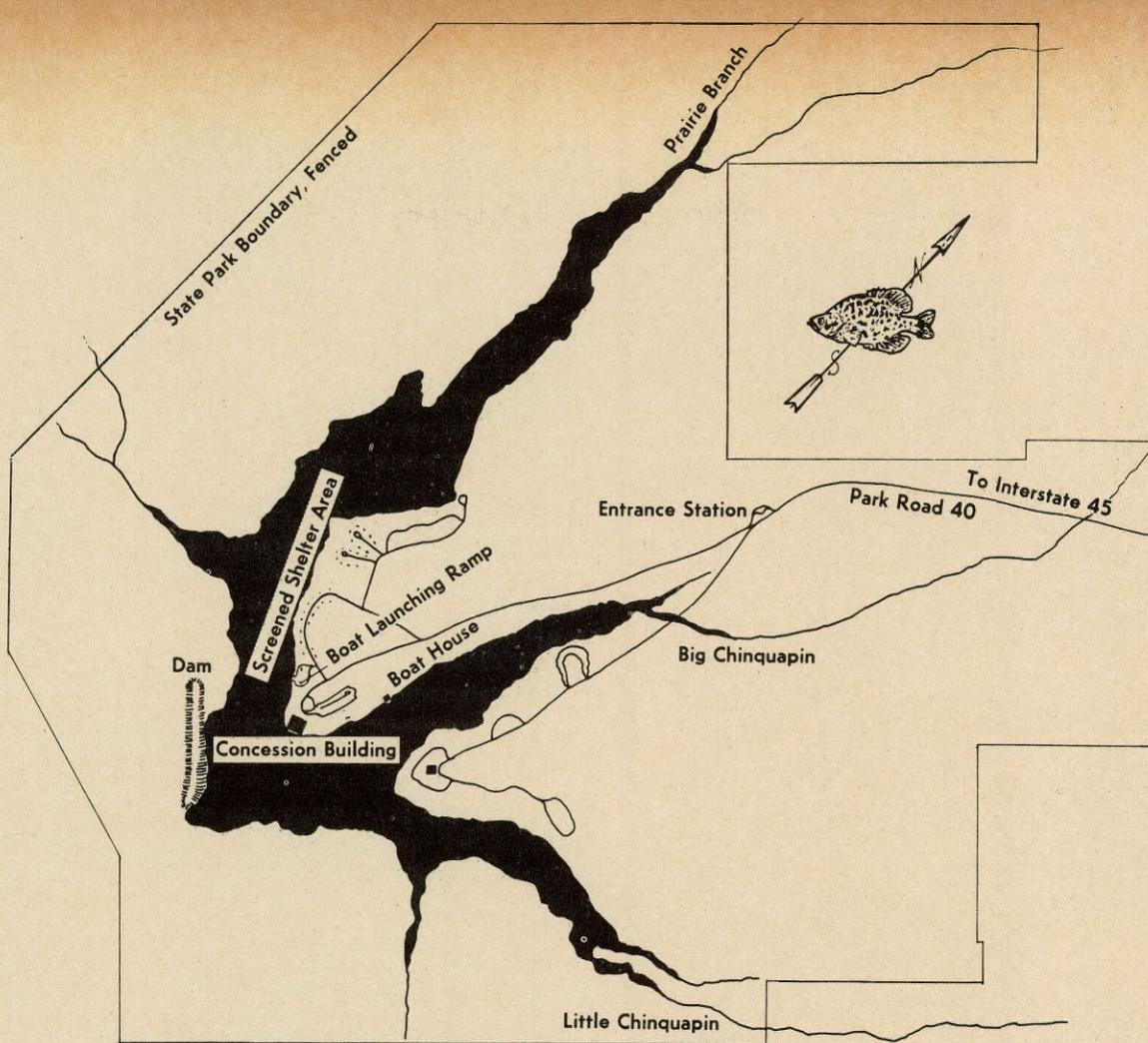
To plant a tree is to give life, to protect it is to sustain life. From its reddish-gold in autumn, to its miracle of birth in spring, a tree offers not only a material source of nourishment, but also solace to the soul. * *



by Wayne Tiller

"Boasting beautifully clear water and good populations of game fish, Lake Raven has earned a reputation for good game fishing."





LAKE RAVEN

VISITORS to Texas are often surprised by the tall timber they find in East Texas, since the State still suffers from their illusion that it is a barren wasteland sprinkled with an occasional cactus plant. Visiting anglers wishing to enjoy their favorite sport among the pines can follow the lead of many Houston and southeast residents to Raven Lake in Huntsville State Park.

Although its 209 surface acres cannot compare to some of the State's multi-thousand acre impoundments, what it lacks in quantity, it makes up in quality. Boasting beautifully clear water and good populations of game fish, it has earned a reputation for good fishing consistently through the years.

Lunker largemouth bass running into the above four pounds class are not unknown to the lake, but much of the interest of anglers is

in the crappie fishing. During seasonal runs crappie enthusiasts flock to the lake.

Of course, the favorite bait for crappie anglers is the always popular minnow, but there are also a few worm fans and artificial lure enthusiasts. Bass anglers also have proponents of both lure and bait fields, with fly casters adding a colorful touch.

Primarily a rather shallow lake, most of the better fishing is in the luxurious growth of vegetation that grows throughout the lake bottom, and especially among the emergent types of lilies and cattails growing in the several stream inlets. Fishing the holes in the weeds and using weedless hooks is definitely recommended.

Many submerged tree trunks also provide better-than-average fishing. However, these same stumps may also result in a sheared pin if the

boating angler doesn't watch his motoring.

Also contributing to fouled motors, and hindering relaxed shore fishing, is the very vegetation that contributes to the good fishing. Care should be exerted to keep weeds from getting tangled in a motor and wrapping to shear a pin when it is started.

If this should happen, limited help to repair a motor may be obtained at the boat house even though they are not properly prepared to do this type of work. Their purpose is to rent row boats and paddle boats. Concessionaires also offer a selection of fishing gear, food, and supplies.

Overnight lodging is available in the form of screened shelters on the area, or you may bring your own lodging in the form of a camping trailer or a tent. Living outdoors

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A QUAIL IN THE BAG by Horace Gore

QUAIL hunting is a top sport in Texas. Many thousands of birds are taken annually by Texans who are dedicated to the sport and to the preservation and increase of Bobwhite. Hunter and landowner interest in quail management problems in the State bear out this fact.

Hunters enjoy a longer quail hunting season in most areas of regulatory responsibility of the Parks and Wildlife Department than they do in those counties administered under General Law. The earlier open date on the second Saturday in November and the closing date of January 31 in most regulatory areas, have been substantiated by information collected by game biologists and wardens, who have made a thorough study of quail population fluctuations for many years.

These findings indicated that

hunters can harvest quail from mid-November through January and still leave ample brood stock to replenish quail populations where habitat requirements are sufficient. The need for an earlier opening of quail season has long been recognized and has been found to be biologically sound.

Data collected by biologists in north central Texas, for instance, have shown that over a ten-year average 80.69 per cent of young quail are hatched before July 15. These birds are ready for the bag by November. The later closing date allows hunters to harvest surplus birds which would otherwise be lost to natural causes before the spring breeding season.

A successful quail crop which will be available to the hunter's gun is not necessarily the product of a large percentage of the population

left as brood stock after the close of the previous season. It is the product of optimum weather conditions, food availability, and cover requirements.

Quail losses prior to hunting season are often experienced after an excellent summer provides better than average hatching success. Similarly, quail coveys which are present in almost all available habitat in October are sometimes reduced drastically by December because of predation, drought conditions, and over-grazing.

In areas of Texas where quail numbers have dwindled, they have usually been evicted by clean farming, overgrazing, pesticides, and other "modern" land practices. Experiments have shown that it is virtually impossible to "shoot out" the bobwhite even under extremely heavy hunting pressure. If they have



ample food and cover with available water, they will come back strong every year.

The most critical time for quail is early fall and late winter. At these times their food supply is at its lowest ebb. In September, the greens and insects begin to dwindle and there is a lag before weed seeds and grain are ripe enough to fall to the ground.

Also at this time, the "fall shuffle" begins. Birds which have been around the barn or along the roadsides and bar ditches all summer begin to build larger coveys and head for the thicker cover in anticipation of colder weather. Many landowners are heard to say that dove hunters kill out their quail, when actually the birds simply moved into heavier cover, sometimes a considerable distance away.

In late winter, quail have utilized most of the available weed seeds and must depend to a great extent

on the new green vegetation for food. Late February and early March are times when they must really pull in their belts if they plan to survive. This is not to say that artificial feeding will solve the problem because cover, which is as vital as food, also diminishes in late winter and food without cover is useless. A bobwhite eating maize on bare ground is a perfect target for many predators.

Predator control isn't worth the trouble either. With cover, quail can take care of themselves, and without cover they are doomed. Land that is heavily goated or grazed by excessive numbers of cattle or sheep cannot be expected to carry many quail.

On the other hand, a diversified habitat of weed patches, brush, grown-up fence rows, a row or two of grain left standing along field fences rows, and proper grazing pressure will provide an atmosphere

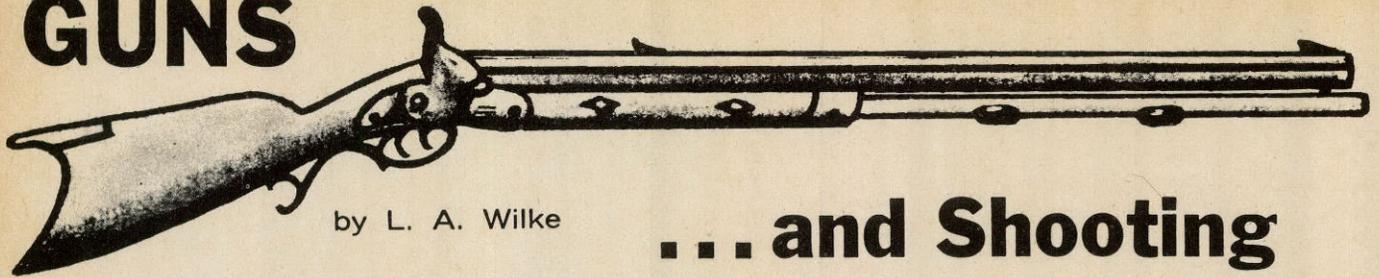
for quail production. Soil bank land afforded excellent food and cover, but most of this land has recently reverted back to farm crops or solid grass turf which is not good quail habitat.

Another pitfall many interested individuals fall into on quail management is stockpiling. Landowners should not be hesitant about hunting their coveys. Numerous scientific studies have shown that whether hunter or not, about 75 to 80 per cent of the birds are lost every year from starvation, disease, and predators.

A ten-year study on hunted and unhunted land in the Possum Kingdom Region in north central Texas revealed an average annual turnover of 79.23 per cent. So the rancher or farmer who doesn't hunt his coveys won't wind up next year with any more birds than the one who does. We all enjoy seeing the

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GUNS



by L. A. Wilke

... and Shooting

This is the month most crow shooters like best. It is easier to follow flights and find large concentrations in certain areas. Also, it is the time of the year when many farmers are plowing and the crows will swoop down on the fields, especially if early planting is in progress in South Texas.

Perhaps most fun in crow shooting is with the use of calls and decoys. One person can stay in one place and kill dozens of them, if he works properly.

Perhaps the most effective crow decoy is one that has been anchored to a fence rail or in an old tree. And the most effective call is that of distress. However, another effective decoy is a stuffed owl. But be sure the incoming crow doesn't tangle with it. They can tear such decoys to pieces. Imitation stuffed owls for decoys may be bought in many local stores

or ordered from mail order houses.

The man who lives in the country naturally knows where crows roost and feed. He has a chance to watch their movements every morning and afternoon. For the city man, however, it requires little effort to find them. For instance, driving out of Houston, each afternoon there is a tremendous flight of crows about halfway between Houston and Columbus. Sometimes they will almost blacken the sky.

However, two important things must be remembered: don't shoot from the highway, and do get permission of the landowner before going onto his property. Most landowners are happy to have crow shooters who are good sportsmen. The others they just don't want.

The gun for crows just depends on what you have. They can be taken with anything from a .22 rifle to a magnum load in a shotgun. There is some interesting target practice in shooting crows with a high velocity rifle, like the .222 with the use of a good scope. When a crow is hit with one of these little 50 grain bullets traveling at around 3,200 feet per second, it literally explodes. Then there is the old .220 Swift, with a 48 grain bullet that starts at 4,100 fps and will reach 300 yards effectively.

However, great care should be used in shooting crows with any kind

of rifle. One of these bullets can travel over a mile. And a good cow may be a lot closer.

Crows infest all sections of the State. I've shot them on the coastal plains, the Hill Country of Central Texas, the Red River Valley and in the Rio Grande Valley in far West Texas. Their conduct is pretty much the same. A shooter can hide behind a fence corner, under a dead tree, or in a blind built of brush and, with a good call, bring them to within shooting range several times before they get wise. He can go back to the same spot a few days later and repeat the trick.

I have an old Olt call which I have used for years. I put a piece of string around it, with a loop to hang around my neck. In that way it is easy to drop down and retrieve after shooting.

Some callers claim they can talk with crows. I do not have a musical ear, and therefore my favorite call is the one of distress or that of a crippled bird. I just set up a bedlam, and usually nearby crows come swooping.

Several men I know use their leftover ammunition for crow shooting. This way they get rid of all old ammunition and start the season in the fall with fresh. And then, of course, there are the reloaders. It is easy to pick up empties while shooting crows, because you usually remain in the same spot for all your shooting.

And if you know a peanut farmer, most likely he will welcome you. Crows really like goobers. **

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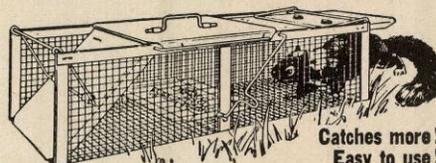
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Wildlife Cleanup Corps continued from page 18

who feeds and also flies with buzzards. There are even beautiful butterflies who feed on the juices of decaying flesh.

Valuable scavengers are not confined to the feathered folk, however. The common opossum is, without doubt, the champion of the earth-bound clean-up squad. He will eat anything from table scraps to a dead horse, and his meandering, ground-searching habits eventually will lead him to some less fortunate denizen of the forest whose time has run out.

Depending on the availability of fresher foods, the fox, coyote, and stray dogs will eat carrion, and all these members of the canine world do a good job of cracking and devouring bones as well as taking care of the more edible parts. As the decaying flesh becomes "riper," these canines seem to think the odor makes a wonderful perfume. They will roll and wallow in the mess

until their coats are impregnated with the repulsive scent.

Raccoons, skunks, feral cats, ring-tails, ground squirrels, rats, and mice all lend a hand when other foods are scarce. During heavy snows and prolonged cold spells, even rabbits have been observed feeding on the carcasses of other rabbits.

When the larger animals have eaten their fill or have gleaned all they can from a carcass, the ants, flies, carrion beetles, and Dermestids take over and strip the last of the flesh from the bones. Even some of the lower forms of molds and bacteria play their part in reducing the carrion to liquids and gases.

In the fresh waters of the state, all catfish will eat dead food, but the yellow or flathead catfish joins the turtle in preferring his meat fairly fresh. On the other hand, the channel catfish will eat anything; and the longer it has been dead, the

better he seems to like it. The common eel is another highly efficient freshwater scavenger who seems to favor the "riper" morsels. Any old bones discarded by larger fish are quickly picked clean by the crayfish.

In saltwater, the blue crab is probably the most efficient clean-up artist, but a list of his helpers would fill a book. The sharks, stingrays, redfish, drum, pinfish, hardheads, and whiting all do their part.

Man may look down on these scavenger species, but without them, he'd be lost. They all have their place in nature, and though it is a very important place, they cannot do the job alone. They will take care of their own, the animals that are killed or that die in our woods, streams, and bays, but man must help. The beer cans, pop bottles, milk cartons, old tires, and all the other debris with which man clutters the countryside must be taken care of by you and me. Nothing eats beer cans. * *

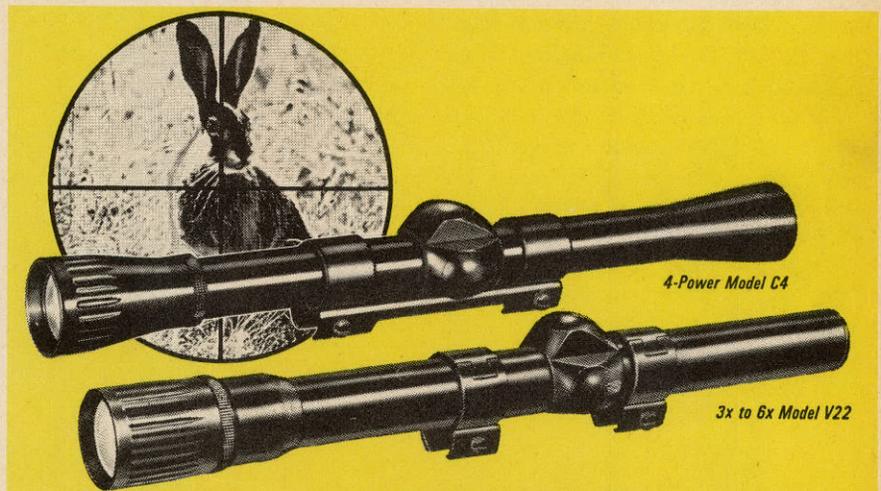
Lake Raven continued from page 23

can certainly contribute to a relaxing fishing trip.

Rules and regulations pertaining to sportsmen on the lake prohibit the possession or firing of firearms on the lake, use of a motor in excess of 12 horsepower, water skiing, and swimming outside designated areas. All provisions of the State boating laws also will be enforced on this lake.

Fishing regulations specify a black bass daily bag limit of 15; catfish daily bag limit 25, possession limit 50, size limit of 11 inches; and white bass daily bag limit of 25. No trot-lines may be set in the vicinity of any of the boat docks or the designated swimming areas. Bass and crappie may not be taken with nets, but wire loops and gigs may be used to take rough fish, including grindle and mullet.

Lake Raven is truly a picturesque place to fish. Not only does the crystal-clear water provide good fishing, but the tall pines and scenery definitely repudiate the misunderstanding that Texas is a barren desert. * *



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Look Out Below

continued from page 6

one who likes adventure will enjoy it."

Many uninitiated wrongly believe danger lurks in the form of huge bats, crumbling rocks, bottomless pits, and eerie loneliness. But practically all dangers in caving are created by the careless and illogical.

"It's only logical to tell someone where you are going and when you'll be back," warns Orion. "And to go with someone."

Recommended baggage includes a hard hat (miner's helmet), a carbide lamp and carbide candles, a flashlight, boots, water, and some candy.

The only trouble the University grotto finds in caving is that there isn't enough free time. Holidays and weekends are the best times for them, but they try to work in a few one-day excursions occasionally.

"Our parents usually understand our caving during holidays rather than going home," says Bill. He points out that Easter and Thanksgiving school holidays provide perfect amounts of time for caving trips.

Although looked upon with skepticism by many people as daredevil human moles, spelunkers enjoy their hobby and point out that it is much safer than many other sports. Aside from serving as a scholastic diversion, they realize great satisfaction from contributing to science and man's knowledge of his planet. * *

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Short Casts



Compiled by Joan Pearsall

FORTIES' FAULTY FOCUS: Leading optometrists say that "telephone book blur," a common symptom of changing eyesight after age 40, is often the culprit in the failing marksmanship of the hunter in the field. Most people after this age become farsighted. Reading glasses or the combination-lensed bifocals are really no great help to them in getting the clear view from back sight to target that is a basic to top-flight marksmanship. But there is a solution—the use of either a peep or a telescopic sight, which eliminates focusing at the rear sight and leaves the game—the distant object—sharp and clear. Such equipment is safety as well as successful hunting insurance for the over-40 hunters. Clear vision can do much to eliminate the "mistaken identity" shots of hunters, which accident statistics show are the cause of as many as 500 hunting deaths each year and 3,000 hunting wounds throughout the nation.

MATERIAL HELP: A national fish and wildlife library reference service has been established by the U.S. Dept. of the Interior in cooperation with the International Association of Game, Fish and Conservation Commissioners. This reference program is designed to help fish and wildlife research workers on state conservation agency projects partially financed under the Federal Aid in Fish and Wildlife Restoration Acts. Each state, plus Guam, Puerto Rico, and the Virgin Islands, participates in the Federal Aid programs administered by the Interior Department's Bureau of Sport Fisheries and Wildlife. Financing of the library reference service will come from the Federal Aid funds prior to their apportionment to the states. Reference materials will be so organized that a single request will automatically receive attention from both the Denver Public Library, where all unpublished reports are to be housed, and the Library of the Dept. of the Interior, where publications will be kept. The service will provide, for the first time, a convenient means for research biologists to obtain specialized reference materials. Use of research findings of the past will improve coordination and avoid possible duplication of effort.

HURRICANE BURIES CRANE: Josephine, one of the world's most famous birds, died during September in a New Orleans zoo, apparently a victim of Hurricane Betsy. The female whooping crane, one of eight of these rare birds in captivity, had hatched four birds—three females and one male—during her stay at the zoo. She and her mate had been put in secure quarters during the hurricane, but were returned to their regular cage the next morning. Helicopters flying low on rescue missions may have excited the famous whooper and caused her to fly against the wire cage, causing fatal injuries.

BRIGHT IDEA: A roll of toilet tissue placed in a coffee can filled with alcohol will burn for a couple of hours with a flame hot enough to cook on or keep you warm in winter.

Texas

Tackle Talk

by Wayne Tiller

Looking ahead to the warm days of spring, many anglers are going through their tackle boxes, discarding old lures, rusty hooks, and broken line, and performing some much-needed maintenance. This is the ideal time for such activity since later all fishing time will be spent fishing.

Often lures can be salvaged from the junk pile by adding new hooks, replacing missing feathers or rubber skirts, or adding a coat of paint. But then there are always some lures beyond repair, that can only be thrown away and replaced. An old favorite lure should definitely be replaced since you have become acquainted with its particular action and results.

In repairing lures, it is good to remember the wrong size hooks can often throw the whole thing out of balance. When this happens a lead weight will often have more action. Exact replacement of all parts is definitely a necessity since lure manufacturers strictly allow only the slightest variation in their products.

However, this does not say that lures should not be adapted to meet one's needs. Often experienced anglers will add a bucktail, replace a bucktail with a rubber skirt, add spinner blades, or otherwise alter a standard lure. In most instances, they have studied the situation very carefully and are seeking a definite result when making such improvisations.

During the process of repairing and caring for your tackle box contents, don't forget the rod and reel. This would be a good time to check all the wrappings on the rod and either perform repairs yourself or

obtain some professional help from a local repair shop.

If you choose to repair the reel yourself, a good coating of lubricant after cleaning is preferred, but too much can cut the efficiency of the reel. Manufacturer's recommendations for service and cleaning should be followed to the letter.

And how about that line? With few exceptions you should probably

change lines while you're working. Remember the line should be in balance with the rod action and the weight of lure or terminal rig you use.

When filling a reel with line, it should be full enough, yet not too full. A casting reel should be filled almost to the lip of the spool to allow a proper amount of line to strip off per turn of the reel during the cast. Too much line will lead to unnecessary tangling.

A spinning reel should be filled to about a quarter of an inch below the spool lip. In this way, the friction of the line when playing out over the lip will not reduce the length of the cast.

Winter is a time for sitting by the fire and dreaming of hunting and fishing days of the past. But it is also the perfect time to get gear ready, to catch that big one in the future. * *

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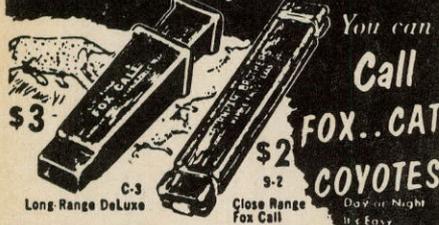
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"Any fool knows a dead snake lies belly up!"

Left alone for a short while, the tired actor slowly raises his head and, seeing no enemy, crawls on about his business. Much research is currently underway on animal behaviour, especially in birds. It would be very interesting if the reasons and methods of development of the hognose snake's defensive acts could be explained.

Even among snakes, the most interesting of animals, the hognose snakes are peculiar creatures. Entirely harmless, perhaps even beneficial in controlling toads and mice,

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their bluffing has made them widely known and feared. Many humans react to the display by making doubly sure that the snake is thoroughly and certainly smashed dead before leaving it.

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If you are lucky enough to find one of these natural born actors in the field, take time to aggravate him a little. Watch his bluff with concealed but understanding amusement. When he reaches the finale, don't kill him; leave him the stage, perhaps to act again for others on another day. * *

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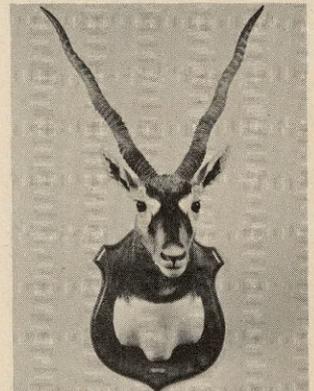
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birds, but they should be harvested each year just as any other crop.

Just as a pasture will carry only so many animal units of livestock, so a given amount of quail food and cover will carry so many birds. And since the game laws are on the safe side, enjoy the sport confident that you are not limiting next year's production. You're only bagging the surplus which will be lost anyway * *

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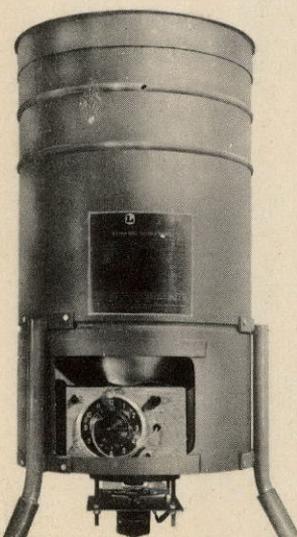
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HUNTING THE WHITETAIL DEER, an Outdoor Life Skill series, by Russell Tinsley, 144 pages, fully illustrated. Harper & Row, New York. \$1.50.

Author Russell Tinsley has published a number of articles about hunting and fishing in Texas, in various outdoor magazines. He is outdoor editor of the *Austin American-Statesman*, and grew up in the hills around Mason where he had plenty of opportunity to study the white-tailed deer.

Now he has put that knowledge into a book that tells all about the deer, scouting, hunting, equipment needed, and other aids in killing, cleaning and cooking the game.

The book deals not only with the Texas whitetail, but all other whitetail hunting in the United States. It is fully illustrated with pictures and is a book that should be in the hands of every deer hunter, young and old. —L. A. Wilke

GOD'S OWN JUNKYARD, by Peter Blake, 142 pages, illustrated. Holt, Rinehart and Winston, New York, \$4.95.

One day soon we're going to wake up and realize what we've allowed to happen to this beautiful land of ours. Natural beauty designed by God's own hand over millions of years has been turned into a 14-carat junkyard.

It didn't happen overnight: over the years it just avalanched. Our running streams have been polluted, our rivers have been dammed up and our countryside have been hacked up into small lots or "ranchettes" and lined with ticky-tacky

houses. Land promoters, builders and the public turned our natural resources to their own ends and literally tons of money was made in the process.

All this was socially sanctioned since none of our written laws were broken. But what about the unwritten laws — the ones of taste and beauty? These weren't broken: by public consent they have been repealed.

This work by an outstanding architectural writer, is chiefly one of pictures and a minimum of words. The writer says the book is a muckraker designed to awak-

en the sleeping esthetic soul in Americans.

The author's selection of pictures is good. He shows how billboards, signs, powerlines, hideous architecture, and American expediency have ruined our lands and water vistas. No one can browse through the book without coming away a little angry at what has happened and what will continue to happen until we somehow learn to "legislate beauty."

Through published in 1963, this book is highly appropriate right now. It might well have influenced Mrs. Lyndon Johnson in her plea to beautify the American scene, and also the recent passage of a law to control billboard advertising along federally aided highways.

This is a start. But, as the author says, the real answer lies with the public — a vociferous public who would rather look at God-made trees, grass and flowers than man-made ugliness.

The problem has been stated rather succinctly by Ogden Nash:

I think that I shall never see
A billboard lovely as a tree.
Perhaps, unless the billboard fall,
I shall never see a tree at all.

This book should be read by everyone since everyone is affected by ugliness and all the other social ills that go along with it. —Paul Hope

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ABILENE	BUFFALO GAP	•	•																				
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Letters



to the Editor

Dove Shell-Out

Editor:

When my 6½ year-old son and I went dove hunting. An embarrassing but comical experience took place that day.

My son is in the first grade and has just learned to count to ten. So, occasionally he practices by counting objects or things.

We had been hunting for about an hour when my son, Jim, said "Daddy, how many doves do we have?" at which time he proceeded to count them out loud, "one, two, three, four, five, six." Then he began to pick up the empty shotgun shells, put them in a neat pile, and started counting, "one, two, three, four, five, six, seven, eight, nine, ten," and then he was silent as he kept taking the spent shells from one stock to another. After about 30 seconds of silence, he turned to me with the last spent shell in his hand and said, "Daddy, what comes after 79?"

E. L. Barnhill
Burleson

Great Croakers

Editor:

What is the largest golden croaker to have been caught?

D. J. Chamrad
Yorktown

The golden croaker or the Atlantic croaker, with the scientific name of *Micropogon undulatus*, usually reaches a length of about 12 inches in our

Texas bays. I have seen specimens up to five pounds and the species is known to reach eight pounds. The *Sports Afield* State Fishing Awards program for 1965 does issue a certificate of merit for fishermen landing Atlantic croakers of three pounds or over in Texas, when a fisherman has complied with the award rules. A three-pound croaker would be classified as "bragging size."—Terrance R. Leary, coastal fisheries coordinator.

Dated Ice Plant

Editor:

The Engineering Librarian of the The University of Texas, Mr. Frank Schmaus, has pointed out an error in dates in your article relative to the ice plant in Jefferson, which was characterized as the "first in the world." This reference appeared in an article entitled, "Created In Chaos," in your June, 1965, issue.

The ice plant at Jefferson was built in 1873, by David Boyle in the back of a saw mill. The mill burned in 1874 and again in 1875. Mr. R. T. Crane of Chicago built three machines for Boyle, one of which went to the King Ranch, one to Austin, and the third was exhibited in Philadelphia in 1876.

The Jefferson plant was the first commercial ice plant in the world that used ammonia as the refrigerant, but this was 1873, not 1836.

Dr. John Gorrie of Florida is recognized as the first man to make commercial ice and to aircondition a room by machine cooling. This was in 1845 at Appalachicola, Florida. He used air as the refriger-

ant. Alexander Twining of New Haven, Connecticut, built and operated an ice plant in 1853 at Cleveland, Ohio. He used sulphur ether as the refrigerant. James Harrison in Geelong, Australia, operated an ice plant using ether as the refrigerant in 1855. Alexander Kirk of Scotland built and operated an air machine like Dr. Gorrie's in 1862, for dewaxing oils and making ice. Daniel Livingston Holden installed and operated both absorption and compression ice plants in San Antonio in 1868 and 1870. John Beath of San Francisco built compression plants using ether at Los Angeles, San Francisco and Portland. This was 1868 and on to 1871.

By absorption refrigeration process, ice plants had been built at Sidney, Australia, in 1861; in Charleston, South Carolina, in 1863; in San Antonio, in 1865; in Shreveport, 1866; New Orleans, in 1869, and Columbus, Georgia, 1872.

Historians have erected a marker in Jefferson, Texas, setting the date of 1874 for Boyle's ice plant using ammonia. That was the year the plant burned down, but he operated it and made ice in the fall of 1873. They should correct their marker.

W. R. Woolrich
Austin

Nutty Pitcher

Editor:

On my brother's first deer hunt during the past season he claimed a squirrel threw acorns at him while he was sitting in a tree stand. I wonder if this has happened to other hunters?

I like your magazine very much and particularly enjoyed the article "Quantity vs. Quality." Keep up the good work and have more deer hunting stories.

Cecil Miller
Gunter

Squirrels are very curious creatures and will "bark" at almost any unusual object. However, this squirrel was probably only cutting acorns for winter storage and they happened to fall on your brother.—Editor.

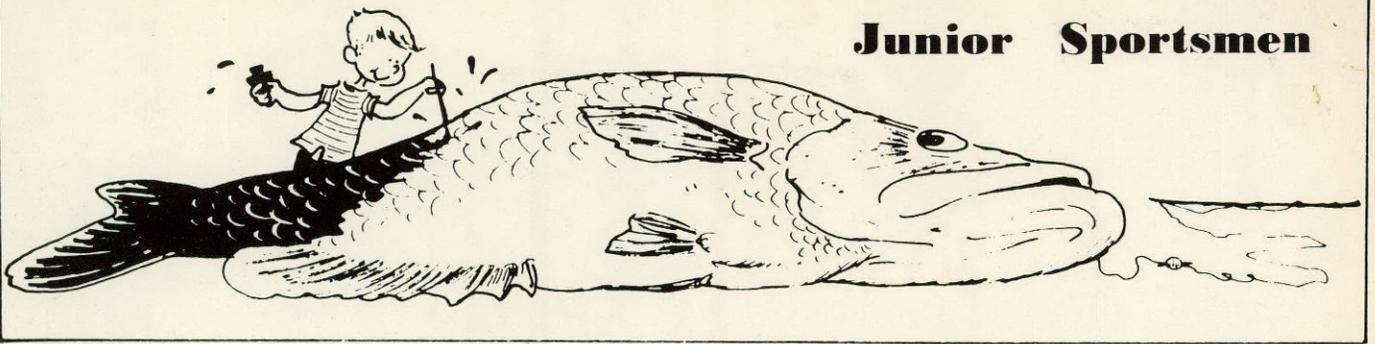
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Junior Sportsmen



Make An Impression

by Joan Pearsall

Fishermen, have you heard about a do-it-yourself trophy project that is beginning to catch on in this country? It is a Japanese art form called Gyotaku—a way to keep your fish and eat it, too!

Gyotaku is the art of printing a fish, and striking results can be obtained with just a few materials and some perseverance.

First of all, clean the slime off your fish by wiping it with table salt and washing it off with a wet rag. Dry well, particularly around the gill cover. Cut a section of paper a bit longer than the fish. Rice paper is the best to use, or any other good quality paper fine and soft enough to absorb ink.

Place the fish on any flat, smooth surface, and apply ink to one entire side, with a soft, bristle brush. When well inked, wipe the eye. Fish eyes do not print well, and the picture will look better if they are drawn in afterwards. Use Japanese "sumi" ink, if you can, as it is quick drying, does not show brush marks, and is water soluble, making it possible to wash

the fish after printing. This ink and rice paper may be obtained from Japanese art stores. However, common India ink is a good substitute.

After the inking process, lower the slightly dampened paper onto the fish, smoothing the fish all over with a gentle pressure of the fingers. Pay attention to the mouth and gills, and spread the fins with one hand, while pressing the paper with the other. You can get an idea of how good a print you are getting, by the ink showing through the paper. Peel the paper from the fish, and there you are!

Another method that is sometimes used, is to place the damp paper over the fish before it is inked. The paper is pressed close with dabs of a damp cloth. Then ink is applied to the outside of the paper. You could try using colored inks also, or even thinned oils.

Don't be discouraged if you don't get good results from your first try at Gyotaku. Just ink the fish over and do it again. As with many things, sometimes it takes several attempts

to achieve a masterpiece. But it is possible to get some very interesting effects, and you can make as many prints as you want.

This is an excellent way to decorate a room and make fine gifts for your friends. When you are especially proud of your catch, you can really make the most of it, by obtaining a unique record of your skill, providing a treat for the table, and proving you are clever with your hands and imagination, as well as your rod and reel. * *

Weighty-Catch



Editor:

Enclosed is a picture of David Hahn, 10 years old, and the bass caught in Mr. W. H. Crober's pond in Green Lake. It was caught in April and weighed 6½ lbs.

We have subscribed to your magazine for years and have given it to several people as Christmas gifts.

Mrs. William H. Hahn
Port Lavaca

