



LIBRARY

MAY 21 1964

PAN AMERICAN COLLEGE
EDINBURG, TEXAS

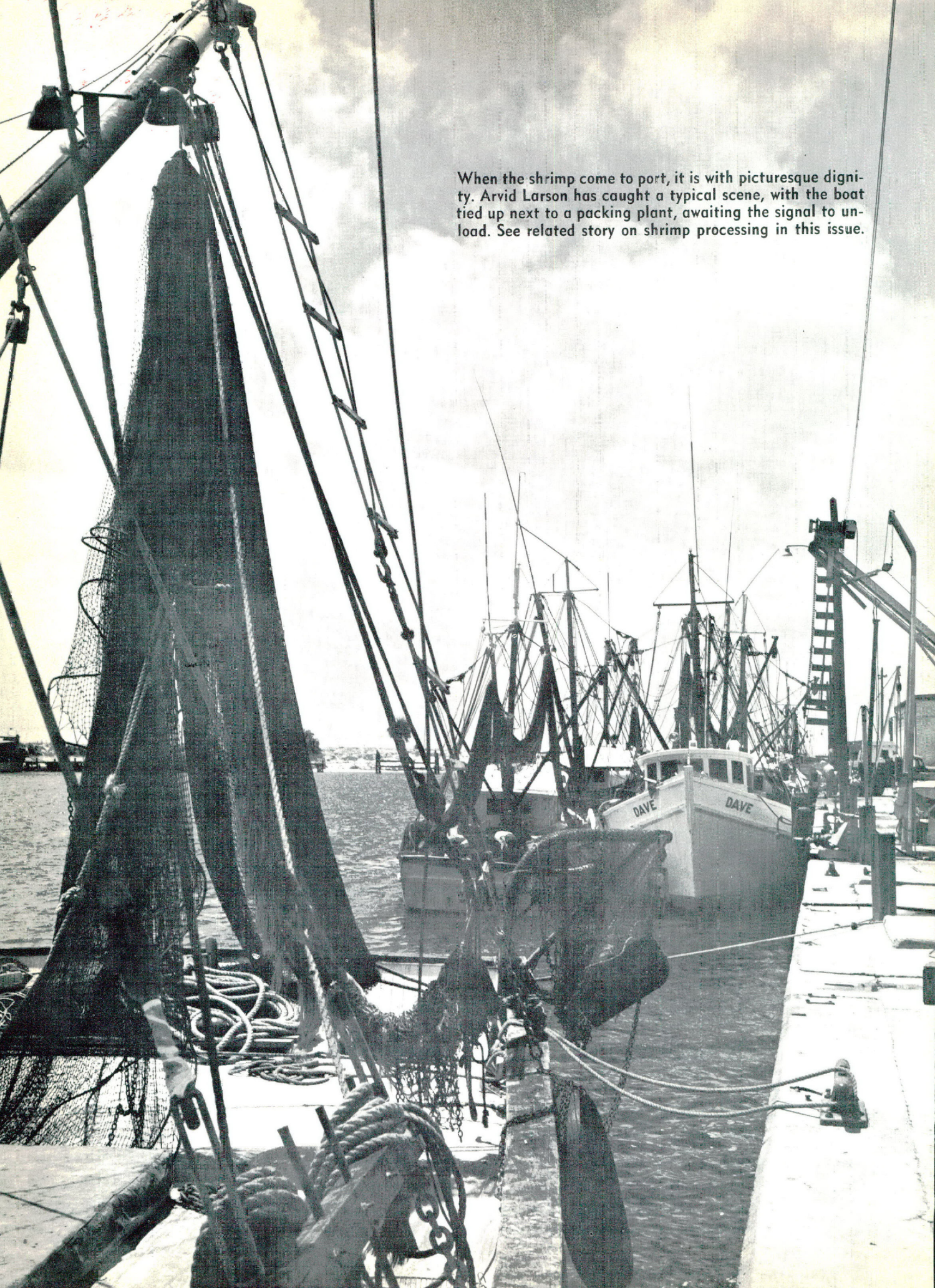
Texas
Game and Fish

MARCH

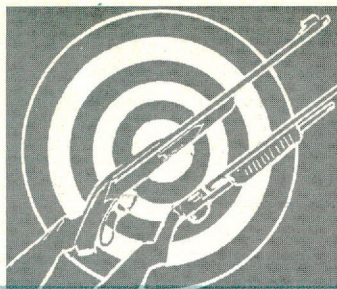
1964

20 CENTS

When the shrimp come to port, it is with picturesque dignity. Arvid Larson has caught a typical scene, with the boat tied up next to a packing plant, awaiting the signal to unload. See related story on shrimp processing in this issue.



MAY 21 1964

PAN AMERICAN COLLEGE
EDINBURG, TEXAS

Long shots Short casts



FARM HARM WARNING: A report from the U.S.D.A. reminds farmers that an ordinary personal liability policy does not cover recreational facilities for fee-paying guests. The report discusses the liability involved in operating such facilities, and the type of insurance that will protect against it. A free copy of "Liability and Insurance Protection for Farmers Who Have Income-Producing Recreational Facilities," ERS-120, is available from the Division of Information, Office of Management Services, U.S. Department of Agriculture, Washington 25, D. C.

POLLUTION TOPS POLL: Readers of NATIONAL WILDLIFE Magazine, which is distributed to some 140,000 associate members of the National Wildlife Federation, overwhelmingly voted water pollution control as the nation's most pressing natural resource problem. This was the result of a ballot inviting readers to help select the Conservation Project of 1964. A number of conservation problems were listed, together with space for write-in nominations. More than half the readers replying listed water pollution as the primary problem.

BETTER THAN LOVEBUG?: A new theory is that a sharp bite by a black fly or mosquito is good for your heart! It has been discovered that when mosquitoes and other blood-sucking insects bite, they inject powerful anti-coagulants into the blood--effective even when diluted with 10,000 parts of human blood--and thus prevent clotting and coronary obstruction. Tropical countries with the most mosquitoes also have the lowest incidence of heart disease. Could be that it's not tension, cholesterol and lack of exercise which are responsible for so many heart attacks in the more civilized nations, but too efficient control of insects!

THE WORM'S TURNED: Six billion sterile male screwworm flies, from the plant at Mission, were dropped from planes in 1963, as compared to 1.6 billion in 1962. Screwworm damage decreased 90% in 1963 from that of the preceding year. So far, this year has been free altogether of screwworm confirmations. All this has taken a great deal of money--\$5 million--and the program will be in real trouble unless the federal government takes over July 1. Southwest Animal Health Research Foundation officials plan to take President Johnson the 10th billionth "Sterile Steve" and enlist his aid.

GRIM GAME: A Jesuit mission priest has criticized U.S. Fish and Wildlife regulations forbidding Eskimos to hunt wild goose or duck. He pointed out that it is wrong to be more eager to cater to our sportsmen than to a hungry people, and that appropriation of game and weapons from the Eskimos by Fish and Wildlife wardens is "a perfect example of the Ugly American."

BACTERIA CATERING: Scientists have discovered that bacteria have a "sweet tooth," and this may be one solution to the mounting pollution problem caused by detergents. Many of the nation's finest waterways have felt the effects of the enormous domestic and industrial use of detergents. These modern cleaning agents continue to foam for months because bacteria don't break them down as they do organically-based soaps. It is now found that application of a sugar-based compound to detergents in polluted waters makes the foamy stuff a desirable meal for micro-organisms.

HIT THE JACKPOT: Here's a hard-to-beat fish story. A distributor for a candy company stopped by Austin police headquarters recently to claim a stolen vending machine which police had pulled from the bottom of Lake Austin the previous day. The distributor took the machine outside and was loading it on his truck when a live, 12-inch catfish flopped out. Water inside the candy machine had kept the fish alive for more than 24 hours.

—Joan Pearsall

Texas Game and Fish

CURTIS CARPENTER Editor
ANN STREETMAN Assoc. Editor
NANCY MCGOWAN Art Editor
JOAN PEARSALL Edit'l Asst.
ETHEL SPECK Circulation

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

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

Postmaster: If undeliverable, please notify TEXAS GAME AND FISH on form 3579 at the Reagan Bldg., Austin, Texas.

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

The inclusion of advertising in TEXAS GAME AND FISH is considered a service to our subscribers and does not necessarily constitute an endorsement of the products advertised nor concurrence with the statements made by the advertisers.

Produced by

INFORMATION AND EDUCATION BRANCH
T. D. CARROLL Coordinator
TOM DILTZ Audio-Visual Chief
JAY VESSELS Journalist
C. W. SHAW Illustrator
ARVID LARSON Photographer
RONALD PERRYMAN Photographer
PAUL HOPE Photographer
ADELINE JOHNSON Darkroom Tech
LOUISE KREIDEL Business Assistant

The Cover



The ringtail, alias band-tailed cat, coon cat, ring-tailed cat, and many others, is a night-roaming carnivore which inhabits primarily the central and western parts of the state but is found also in small numbers in East Texas. It is a little fellow: an adult weighs but about two pounds. See related article in this issue.

Photo by Tom Diltz

OFFICIAL MAGAZINE OF THE PARKS AND WILDLIFE DEPARTMENT DEDICATED TO PROTECTION AND CONSERVATION OF NATURAL RESOURCES; AND TO IMPROVEMENT OF HUNTING AND FISHING IN TEXAS.

MARCH, 1964

Vol. XXII, No. 3

★ In This Issue ★

The Future's Free Time	3
Velvet-Horn Investigation, Part II	4
by R. M. ROBINSON, D.V.M.; R. G. MARBURGER and JACK WARD THOMAS	
Continued discussion of the intensive study on Texas' abnormal bucks.	
Bright-Eyed and Band-Tailed	7
By RUTH J. CARNES	
The retiring ringtail is an amiable fellow when you get to know him.	
From Gulf to Gumbo	8
by ARVID LARSON	
These little shrimp go to market—after many steps.	
A Measure of Success	12
by CURTIS CARPENTER	
Size up those trophies: they may have a chance for fame.	
Ideas of March	14
by W. R. LONG	
Not a lost month, but a time to get shipshape for future fishing.	
Mutual Benefit	15
by VERNON HICKS	
Habitat, beauty and utility can go hand in hand with wise land use.	
Tied to a Twister	16
by J. B. BAUCHMAN	
Fisherman and fish are partners in grim determination.	
All Outdoors	19
by Staff	
Wildlife Week alerts lovers of the outdoors to future needs.	
Canyon of Many Faces	20
by JIM THOMAS	
Park oasis on the prairie is full of surprises.	
Happy Fishing Grounds	23
by JAY VESSELS	
Pick your park and you'll find fine fishing.	
Getting the Drift of It	24
by CLIFFORD FARMER	
A happy chance started off new fishing success and fun.	
Shrimp Boats at Port	Inside Front Cover
Long Shots	1 Conservation Conference 29
Guns	26 Correction 29
What Others Are Doing	28 Warden Award 31
Tackle Talk	29 Prize Antelope 31
Letters	32
Junior Sportsmen	Inside Back Cover
Gulf Specialties	Back Cover

JOHN CONNALLY, GOVERNOR OF TEXAS

PARKS AND WILDLIFE COMMISSION

Will E. Odom, Chairman

A. W. Moursund, Johnson City

James M. Dellinger, Corpus Christi

PARKS AND WILDLIFE DEPARTMENT

J. Weldon Watson, Executive Director

DIVISION DIRECTORS

Howard T. Lee, Field Operations

W. J. Cutbirth, Jr.,

Eugene A. Walker, Program Planning

Administrative Service

COORDINATORS

T. D. Carroll, Info-Ed.

Terrance Leary, Coastal Fisheries

A. J. Springs, Wildlife

Marion Toole, Inland Fisheries

J. B. Phillips, Law Enforcement

C. L. Friou, Fiscal

Joe Marks, Engineering

James Archer, Personnel

Bill M. Collins, Parks

REGIONAL DIRECTORS, WILDLIFE

Henry Burkett, Region 1;

John M. Carlisle, Region 3;

San Angelo Area

Tyler Area

A. W. Lewis, Region 2;

J. R. Singleton, Region 4;

Waco Area

Houston Area

R. G. Mauermann, Region 5; Rockport Area

REGIONAL DIRECTORS, PARKS

J. H. Tschauener, Region 1

Bob Magouirk, Region 3

Billy J. Smith, Region 2

W. B. Hoskins, Region 4

Donald Oliver, Region 5

The Future's Free Time

THE THEME of this year's observance of National Wildlife Week, sponsored by the National Wildlife Federation, is "America Needs Outdoor Recreation—Act Now To Provide for the Future." If the projected population figures for America in 2000 (260 million) are to be trusted, the 1964 theme is appropriate. And, if labor leaders, the wheels of invention and the coils of automation have their way, these extra 180 million persons will have even more free time, money and efficient means of travel than the present 180, many of whom are showered with such luxuries.

Considering these facts, there is little wonder that the Federation is sending out an SOS for more development, planning and organization now to provide opportunities for outdoor relaxation for persons living in 2000 and the intervening years.

Who benefits from such development? Today nine out of 10 Americans participate in some form of outdoor recreation. According to Wildlife Federation figures, participation in outdoor recreation will increase threefold during the next 30 years.

Right now, the number of youngsters and women enjoying fishing and hunting is on the boom. According to the National Survey of Hunting and Fishing in 1960, one in every 10 women fished and one in every 69 hunted. Two and a half million boys and girls hunted as compared to two million shown in the 1955

survey. In the 12-18 age group, fishing showed an even greater increase.

Outdoor recreation, especially hunting, fishing and camping, is becoming a family affair. One Texas mother feels so strongly about hunting's being for the family that she wrote an article (*Texas Game and Fish*, December 1962) proclaiming, "Kids belong in church, school, barber shops, dime stores, ball parks, Saturday movies and bed. But there's one other place kids belong—in the outdoors. Not just outside playing, but outdoors hunting." She explained how she and her husband carefully train their youngsters over a period of years to hunt and to enjoy family hunting trips.

Many Texans just enjoy being outside and watching wildlife rather than hunting and fishing. This letter from a young wildlife lover lacks polish but points out how many persons regard their outdoor experiences with wildlife. "I love the country very much. I love animals very much, too. There are mean animals also, as you already know. I do not know why some animals are mean. But if they're mean, or if there good, I am not complaining because I like them. . ."

It is for the well-being of persons such as those who made the comments above that the National Wildlife Federation is this year urging public awareness and action for the wise use of land and facilities for outdoor recreation. ** THE EDITORS

Part II

Velvet-Horn Investigation

by R. M. ROBINSON, D.V.M.
Dept. of Veterinary Pathology
School of Veterinary Medicine
Texas A & M University

R. G. MARBURGER
Wildlife Biologist

JACK WARD THOMAS
Wildlife Biologist

The first (February, 1964) of this two-part article on velvet-horn research being done by Parks and Wildlife biologists explained that the animals are sexually abnormal. Their antlers, which are often of unusual shapes, are covered with velvet throughout the hunting season, whereas normal bucks shed this protective covering in September. The testes of the abnormal bucks are reduced and the body and facial characteristics are feminine in comparison with those of normal bucks.

Although velvet-horns have been reported in a number of areas in the United States, Texas is unique in having the only area in which large numbers of velvet-horns are found.

Research to date indicates that there is a definite correlation or relationship between granite gravel soils and the velvet-horn condition.

Part II of the article includes findings on social behavior, pathological factors and relationship between the high number of velvet-horns and the herd's reproductive performance.

The Part I by-line was erroneous. It should have read Jack Ward Thomas, biologist; R. M. Robinson, D.V.M., Dept. of Veterinary Pathology, School of Veterinary Medicine, Texas A & M University; and R. G. Marburger, biologist.—*Editor*

WEEKLY observations of the marked specimens in our Parks and Wildlife Department study of velvet-horn bucks yielded unexpected information on the peculiar social behavioral patterns of these animals (Thomas, Robinson and Marburger, 1964).

These social behavioral patterns were those influenced by sexual activities of normal deer (September-February) and those not influenced by sexual activities of normal deer (March-August).

During the period, September-February, normal deer are more or less sexually active. In September and early October the normal male's testicles begin to increase in size and they begin to produce a male hormone called testosterone. This in turn causes the blood supply to the velvet-covered antlers to be shut off. The velvet dies and falls away leaving the hardened antler. The male "polishes" his antlers in what is probably sham fighting with small trees and bushes. From early November on, normal males begin to enter the rutting season and the active pursuit of ovulating females. The rutting may peak out any time from early December until mid-

January and varies from year to year. Rutting usually declines in late January and ceases entirely in late February. The antlers are shed, usually from late December until late February, the majority being lost in January.

During this period of sexual activity (September-February) all normal adult males and most adult females were superiors of "velvet-horns" in social hierarchy. These social dominance patterns were best demonstrated when deer were gathered on feeding grounds where they were regularly fed shelled yellow corn to prevent losses from malnutrition. All adults exhibited aggressive behavior toward velvet-horns; females did so by striking out with their front feet or by threatening this action, and males proclaimed their superiority by threatening with the head and antlers. Females seemed to strike at the velvet-horns as a mere exhibition of dominance, aggravated by competition for food. Adult males, however, exhibited an extreme aggressive behavior toward velvet-horns. Females usually struck out at or threatened only those velvet-horns in their immediate vicinity; whereas, normal males were observed to charge 50-75 yards to prevent the approach of a velvet-horn. Although we did not see this activity, Weston (1954) mentioned in his book, "E. A. Walker killed one (velvet-horn) in Llano County in December of 1941 as it was being charged by six hard-horned (normal) bucks which had already hooked its rump bloody."

Probably because of the aggression displayed toward them by normal males, velvet-horns, as a group, were noticeably more shy than other deer. When approaching a group of feeding deer, velvet-horns advanced with great caution, often standing apart from the group and merely watching for periods as long as 30

minutes. When the animals ventured on to the feeding grounds, they did so with the greatest caution, and they were furtive and anxious among the normal deer.

During the sexually non-active period for normal deer (March-August), the attitude of normal deer toward velvet-horns was markedly different from that exhibited during the sexually active period.

The testicles of the normal males are fully regressed in March; hormone production has ceased, and there is no sperm production. Antler regrowth usually begins during March, probably activated by hormone secretions of the pituitary (Wislocki, 1943). This antler growth continues until August when the testicles begin to enlarge and secrete hormones. This enlargement and activity probably causes antler growth to cease, and the antler solidifies and hardens. The next steps are described earlier under the period, September-February. The females have fawns in May-July.

During this period (March-August), no animosity was exhibited by normal deer toward velvet-horns. Although some social hierarchial conflict over food occurred, none of the extreme aggression so evident during the period of sexual activity was exhibited.

Velvet-horns we observed used several behavioral patterns that were completely different from those of normal deer.

Velvet-horns associated together in groups of from two to seven animals on a year-around basis. These animals were very rarely followed by an adult doe or by yearling deer or both. Velvet-horns exhibited absolutely no indication of sexual behavior.

When alarmed, velvet-horns did not use the typical reactions of stamping the front feet, "snorting" or "blowing" and displaying the

white underside of the tail in flight. They merely fled the source of danger in silence and without display of the tail.

The Pathology of Velvet-Horn Bucks

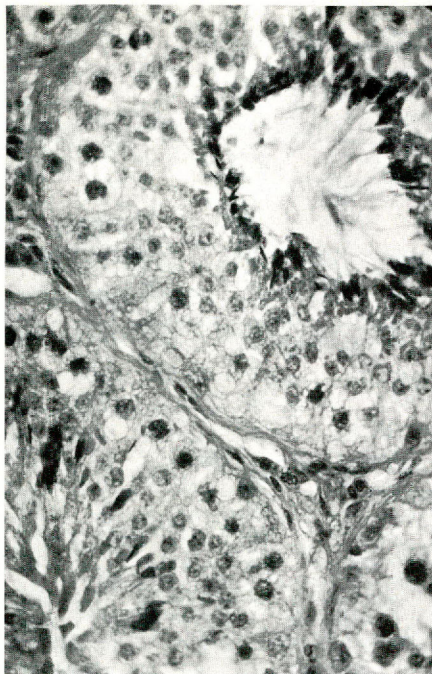
To more fully understand what was going on in the production of a velvet-horn buck, pathological studies were initiated at the school of veterinary medicine at Texas A & M University. Many deer were collected and pieces of their body tissues were removed and preserved for microscopic study. Samples of blood were also taken to test for some of the more common diseases which could have contributed to the development of velvet-horns.

Previous studies, notably those of Wislocki (1943) and Wislocki et al. (1947) have demonstrated that the antlers of buck deer are profoundly affected by the hormonal secretions of the testicles. In fact the secretion of androgen, or testosterone, regulates the shedding of the velvet, and the cessation of this secretion causes the antlers to drop as described earlier. If a buck is castrated, which very effectively removes the cells which produce this hormone, he will grow antlers, but he, like the velvet-horn, does not shed the velvet.

Pathological examination of testicles collected from velvet-horns reveals that the testicles have deteriorated to the point that the animals are functional castrates. Knowing this, then, we can easily see why velvet-horns do not shed their velvet normally. But what about the bucks which have reduced testicles and have hard antlers, such as one we marked which is discussed in Part I? Although we do not have many specimens of this type, microscopic examination has shown that these deer have compensated for their reduced testicles by added growth of the cells which produce the androgenic hormone. This allows the production of enough hormone to cause shedding of the velvet, but the deer still has very small and useless reproductive organs, and it sheds its antlers in such a manner that it leaves a cone instead of the ordinary even pedicle.

The microscopic appearance of a normal testicle in rutting season is

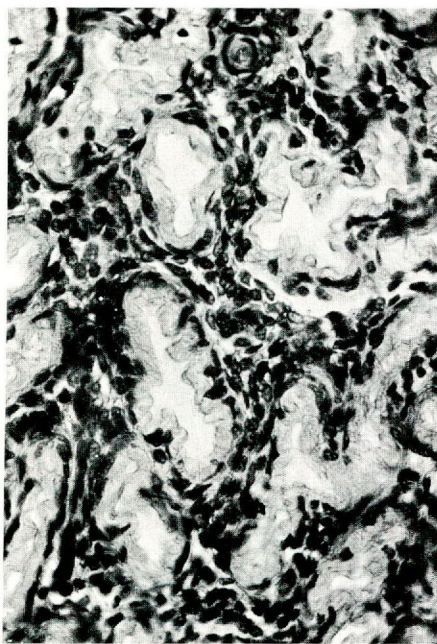
Figure 1



Microscopic view above, of normal deer testicle during rut, shows germinal cells developing into sperm, the black bodies with tails. Similar view below, of a velvet-horn testicle, shows no sperm-forming cells, indicating sterility. Tubules are crinkled and reduced in size.

seen in Figure 1. In this picture the development of germinal cells into sperm can be seen. The mature sperm are the black bodies with tails in the middle of the tubule. A similar picture at the same magnification of a velvet-horn deer testicle is seen in Figure 2. In this case no cells are present to form sperm, indicating

Figure 2



that the deer is sterile, and the tubules have become reduced in size, for they are crinkled and the cells between them are prominent. In some of these testicles we have seen remains of what was a cellular lining in the tubules. These remains along with the evidence of reduction in tubular size suggest that something is happening to the tubules after they are developed initially. The cells which produce the sperm are killed and sloughed away, leaving only a "ghost" of what was once an active tubule. No inflammation on the buck's part in this tissue is apparent as it would be in a usual disease process. We are thus justified in stating that the shriveled testicles of velvet-horns are not likely to be caused by a disease. Parasites have also been suggested as the cause, but from our experience we have found that damage due to parasites is also accompanied by definite inflammatory responses in the host animal, in this case our buck deer. Tests which have been performed on the blood samples gathered over the last year indicate that the velvet-horn condition is not due to some of the more common reproductive diseases of domestic animals such as Bang's disease, or Leptospirosis.

With common disease discounted, we must study such possible causes as nutritional deficiencies, toxicities, and genetic factors further to find the actual cause of velvet-horns. It is not beyond the realm of possibility for the syndrome to be dependent on a deficiency coupled with disease or a toxicity, which thus increases the complexity of our problem.

We look forward this year to doing more research on the clinicopathological level in an attempt to see if this condition results from a systemic condition or if it is a condition which is localized in the testicle of velvet-horned bucks. This will help us determine how this condition develops within the buck's body.

Relationships Between High Numbers of Velvet-Horns in the Herd and Reproductive Performance

The first question that occurred to us when studying the velvet-horn problem was the effect of high numbers of sterile, velvet-horn bucks on the reproductive performance of the

deer herd. Secondly, we wanted to know if females are affected by the same unknown agent that causes the velvet-horn syndrome in male deer.

The Hahn deer census technique (Hahn, 1949) has been used to estimate deer populations in Llano County since 1954. This technique called for the establishment of two-mile walking cruise lines evenly positioned over the area to be censused. The visible area along the line was determined, and the lines were cruised twice each fall. The deer density was determined by dividing the number of deer seen into the acres visible on that line. In the process of counting or cruising the line the deer seen were classified as to sex and age; i.e., bucks with forked antlers, spike bucks, adult does and fawns. It was possible to derive a measure of deer herd reproductive performance by deriving a ratio between adult does and fawns. There were 32 census lines in Llano County.

It was mentioned in Part I of the article that velvet-horn bucks were found primarily in granite gravel soils areas. To obtain some measurement of the possible effects of high numbers of velvet-horn bucks on deer reproduction we selected 10 deer cruise lines located entirely on granite gravel soils and 10 lines located entirely on non-gravel soils. The reproductive performance of the two areas was compared through the

Table 1. Comparison of reproductive performance of adult females between soil types as indicated by reproductive tract collections

Year	Type of Soil	Total Collected	Containing Corpora Lutea	Corpora Lutea Present	Ovulation Incidence	Containing Corpora Albicantia	Per Cent With Corpora Albicantia
1959	Granite	107	85	137	1.61	84	78.5
	Non-Granite	167	103	157	1.52	146	87.4
1960	Granite	91	75	112	1.49	63	69.2
	Non-Granite	132	104	138	1.32	89	67.4
1961	Granite	72	39	50	1.28	52	72.2
	Non-Granite	94	49	69	1.40	76	80.9

fawns-to-doe ratio derived from the deer cruise counts made each year from 1954 to 1962. These ratios are graphically illustrated in Figure 3.

Examination of this graph revealed that reproduction on both areas followed the same basic patterns. Statistical tests (2x2 chi-square tables) revealed no significant difference between reproductive rates measured by deer census counts for any year from 1954 to 1962. In short, this test indicated that deer herd reproduction was unaffected by large numbers of velvet-horns in the population and that females were evidently unaffected by the causative agent of the velvet-horn syndrome in males.

To test this conclusion further, data available from collections of female reproductive tracts made in connection with deer reproductive studies were utilized (Teer, 1957 and 1958; Thomas, 1961, 1960 and 1959).

When a doe is in heat she ovulates

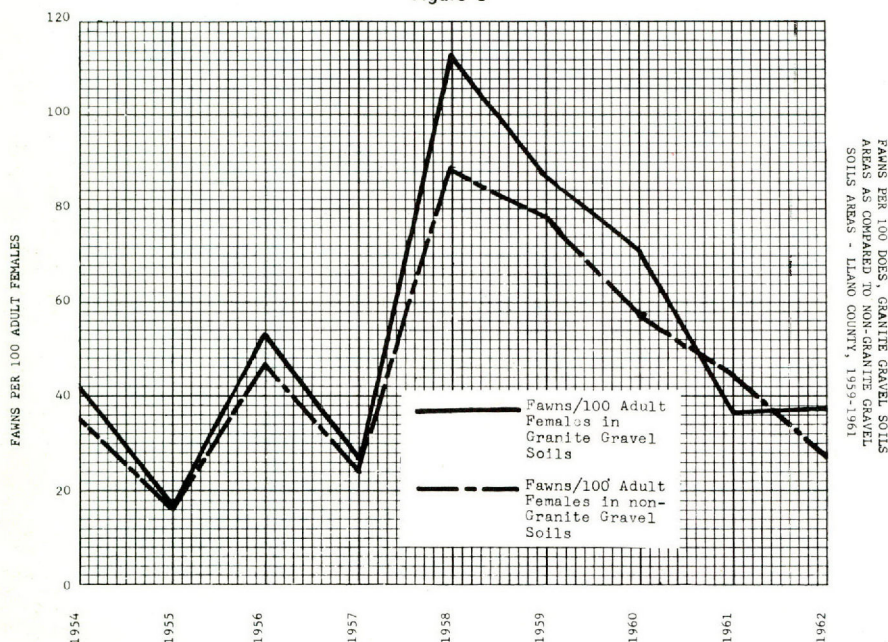
an ovum or egg from the ovary or ovaries. After the egg or eggs are ovulated, a body forms in the ovary where the egg has been. This body is called a corpus luteum. By counting the number of individual corpora lutea in the ovaries from a female collected during the breeding season, it can be determined how many ova or eggs she has ovulated during her last heat period. This was one measure of her reproductive performance. When the average ovulation rate is determined for a large number of females a measure of the reproductive performance of that group was obtained by the "group ovulation rate" which is nothing more than the average rate at which adult females ovulated ova or eggs (Cheatum, 1949).

The reproductive tract collection for the years 1959, 1960 and 1961 was divided, by area of collection, into those collected on granite gravel soils and those collected on non-granite gravel soils. Only those reproductive tracts that contained corpora lutea were considered in this comparison. The data available from this comparison is shown in Table 1.

Statistical analysis (*t* Test at $t=.05$) indicated that there was no significant difference in ovulation rates between females on granite gravel soils areas and those on non-granite gravel soils.

If a female is not bred during the heat cycle, the corpus luteum disappears and is replaced by a new corpus luteum when the animal ovulates again 28 days later. If the female becomes pregnant, the corpus luteum remains intact in the ovary until after the birth of the fawn or fawns some 200 days after conception. After the birth of the fawns, the corpus luteum regresses to a

Figure 3



• Continued on Page 30

MAY 21 1964

PAN AMERICAN COLLEGE
EDINBURG, TEXAS

Bright-Eyed

and Band-Tailed

by RUTH J. CARNES



HAVE YOU EVER seen a RING-TAIL? Chances are this furry mammal is around and about your neighborhood and you are unaware of it. The elusive night rovers have been ranging over the southwestern United States and Mexico for quite a spell in surprisingly large numbers.

The ringtail was featured by the ancient Aztec Indians in colorful picture writings on maguey fibers and deerskins. They called him a Cacomistle (KAK o MIS l). The Spaniards found him in the wilds, while searching for gold, and continued to call him by that name.

Oldtimers called him a miner's cat, perhaps because he spends the greater part of the day among the rocks and caves on the hillsides. *Bassariscus astutus* is the scientific name for our remarkable stranger, which means clever little fox, but he is no kin to that family. Too, every locale has a favorite nickname—band-tailed cat, coon cat, ring-tailed cat, and many others.

The ringtail has a fabulous Texas-sized tail, handsomely ringed with black and white, which arches out gracefully. His slender low-slung body is about two feet long with the prize-winning tail being half of that. His soft plush coat of pale yellowish-gray fur is tipped with black and gray. His underparts are slightly paler, more of a yellowish-white. Big dark eyes, marked by whitish circles, dominate a delicately pointed face. Rounded, upturned ears seem to be ever on the alert. He is not a big fellow—a full-grown one weighs only a scanty two pounds, more or less.

Besides Mr. Hideaway's preference for squeezing into snug little rocky nooks and crannies, he likes to live in hollow trees and logs. He is an

expert climber and jets up to the treetops every now and then on bright winter days to sun himself.

Ringtails have been known to move into prospectors' cabins and old ruins or vacated cottages. Wherever they may decide to den up, most likely it will be along a sprawling stream or waterhole. Like their coon cousins, they are heavy drinkers.

The setting sun is a safety signal for the night shoppers to start streaking out into the countryside. Their diet varies with the seasons. It includes mammals (cottontails, rats, mice, squirrels and skunks), birds, insects, fruits and berries.

The pudgy, pug-nosed kittens can hardly be classed as cuddly charm-ers. They have barely enough whitish fuzz to cover their pint-sized bodies. The only clue to their future beauty is the faint black rings on their stubby tails. They are born in the spring. Sometimes they have a soft lining to cradle them in the nest, but often no lining is provided.

As a rule, the mother instructs and cares for her family, which may be from one to five. The father occasionally treats them with juicy tidbits, some believe. As soon as they are about two months old they start taking short supervised trips to the woods and waterholes. By early fall the young ringtails have learned the tricks of the wilds and are ready to make their exodus toward new horizons.

The most cunning trick, perhaps, is the way the animal uses its tail as a defensive weapon against owls. As soon as it is aware that enemy number one is around, it flips the tail over the arched back in a clever attempt to appear too big and too fierce to handle.

But that gimmick doesn't work on the rattlesnake. When this enemy starts its death song, young ringtail takes off as swiftly and silently as his fur-padded feet will take him, swinging his tail behind him; the only evidence left is the five-toed tracks.

Does the rancher consider the ringtail a nuisance? There are almost as many answers to that question as there are ranchers. Although it is not a serious predator on livestock or poultry flocks, some say it does loot nests of game birds and turkeys, occasionally. One study showed that even in winter when other foods were scarce, birds did not comprise more than one fourth of the ringtail's diet.

Ringtails rank among the top furbearers in numbers caught each year in Texas. Many a ranch boy has earned his spending money and helped finance a college education with the sale of their pelts. This was in 1946 through '48 when buyers were paying from 10 to 15 dollars

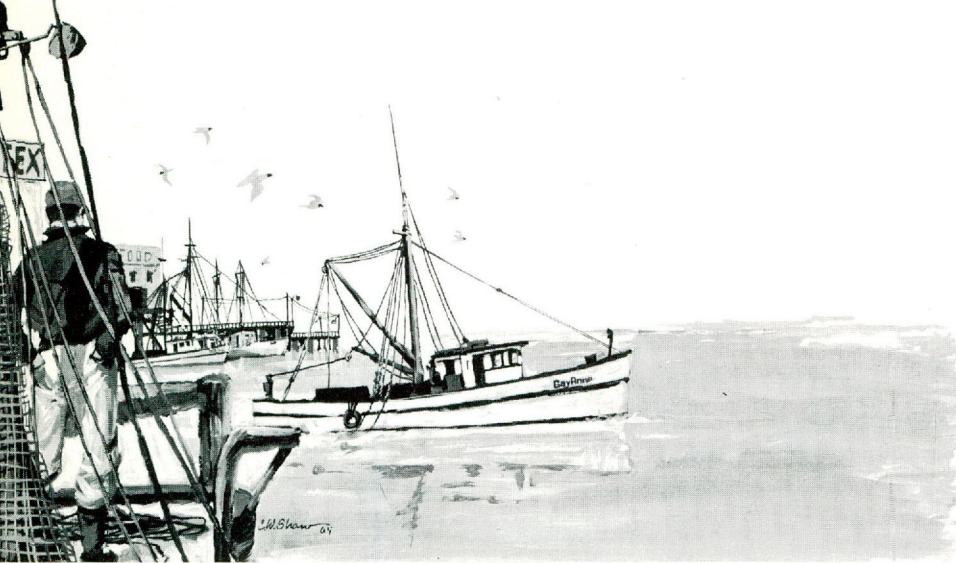
• Continued on Page 30



This looks like invasion! The ringtail demonstrating its docility as a pet on the arm of Victoria Fireman David Volkmer, may soon have need to defend that comfortable perch.

From Gulf to Gumbo

by ARVID LARSON



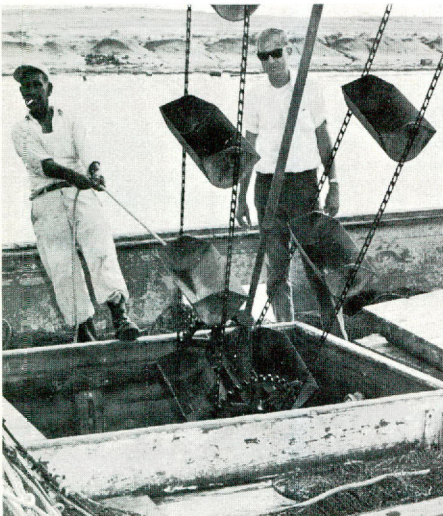
THE SHRIMP industry is the leading fishery in the United States, and Texas usually leads the nation in the number of tons processed. Shrimping, in fact, leads Texas' fisheries in economic value.

In some states the amount of shrimp received by packing plants is so small that the entire packing operation is done by hand. Small plants sometimes have to store shrimp until enough has been received to warrant processing.

In Texas, however, most plants are large, turning out thousands of pounds of packaged fresh shrimp each day. During the heavy season, August-October, some Texas plants operate on a 24-hour basis, stopping only long enough to wash down the plant thoroughly between shifts. In large plants most of the processing is done by machines. In some Texas plants, however, workers peel, devein, batter-dip, bread and package by hand.

To earn the stamp of government approval for each package, a plant must meet rigid sanitary requirements from the time the shrimp nets are hoisted aboard the boat until the shrimp are shipped from the plant to retail markets and stores throughout the United States. **

When the shrimper reaches the plant, a conveyor bucket is lowered into the hold before the rigid inspection begins prior to unloading.



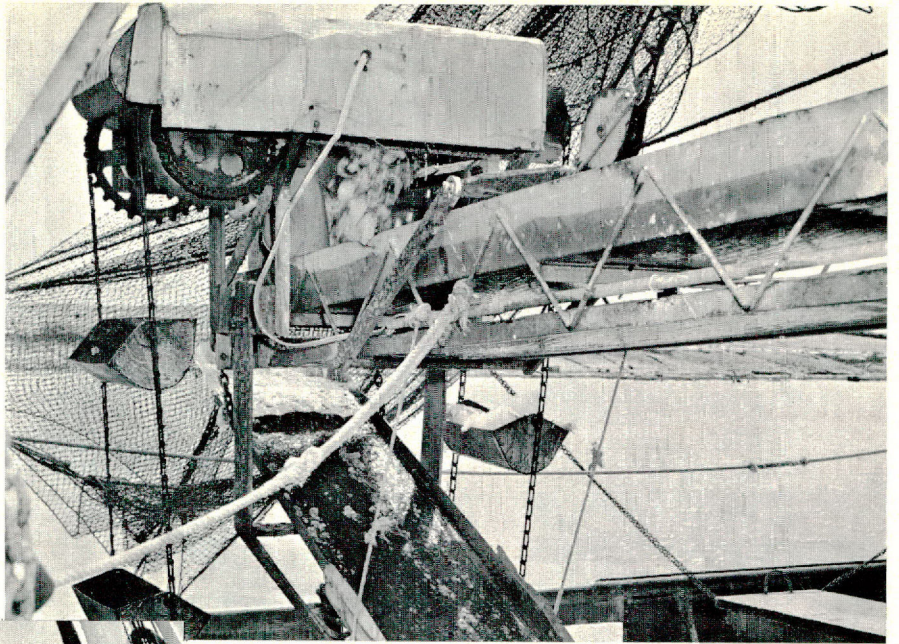
Topside, the inspector watches a deck hand remove the insulated door and pick loose ice from the bottom of the compartment. This picking assures that the icing was sufficient.

Shrimp are loaded in the conveyor bucket, with employees taking turns in the shoveling.

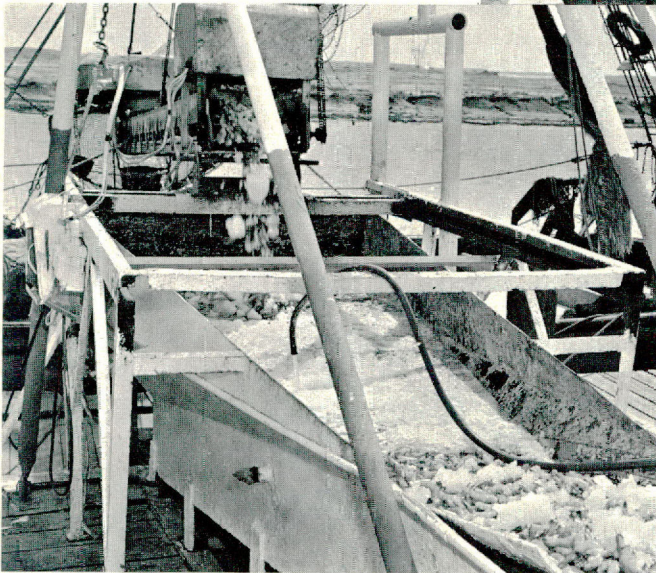




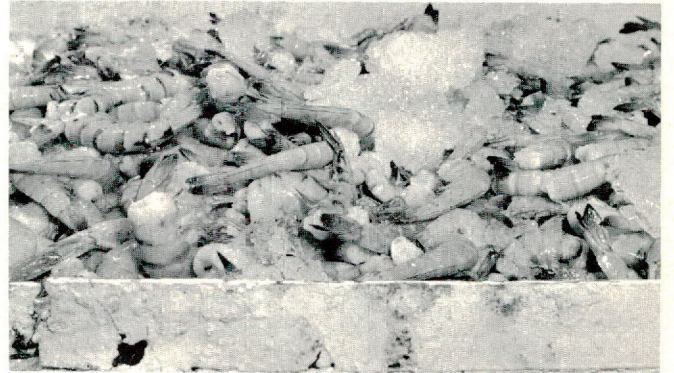
As the unloading operation begins, the entire family of the captain comes aboard to watch.



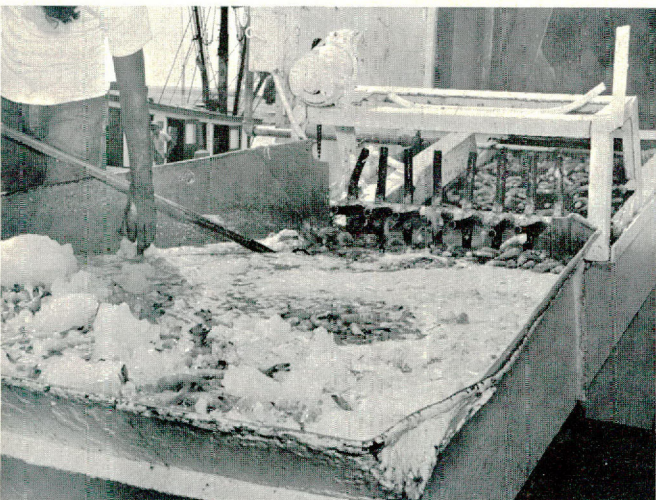
When each bucket gets to the top of the bucket conveyor system, it is tipped, the ice and shrimp inside then falling onto a conveyor belt.



This conveyor belt dumps the ice and shrimp into the first de-icing and thawing tank, where large pieces of ice and shrimp are broken up.



The shrimp then move along the slow conveyor belt. Remaining big ice chunks are hand-removed, before the second de-icing tank is reached.



In the second of the thawing and de-icing tanks, all the ice is melted or removed. Also, the clusters of shrimp and ice are separated.



The motion of a spoked wheel sees to it that only a single layer of the shrimp is allowed to travel on the conveyor belt to the plant.



Broken and bad shrimp are removed by hand as they enter the plant. Sprays wash them as they move to the first of three grading machines.

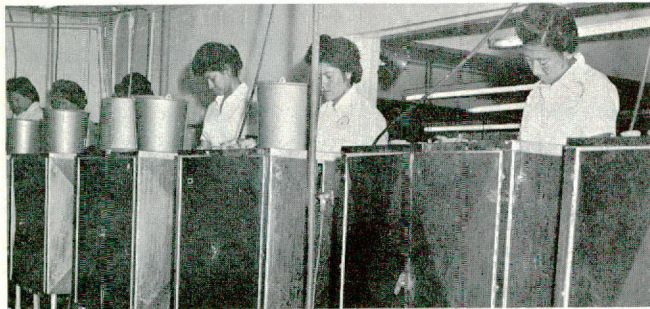


By machine-grading, first the smallest shrimp, then each slightly larger size, are picked out, only the largest reaching the last bin. Spot checks on uniformity are made for each grade.

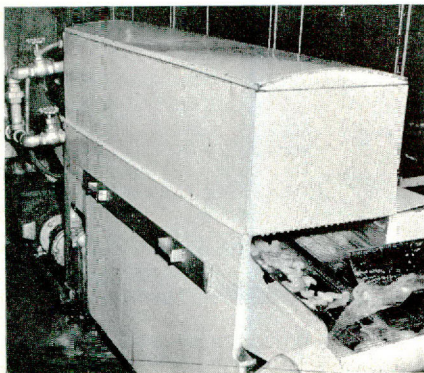


Only a few minutes after the shrimp enter the plant, they are boxed and placed in these racks to be sent to the quick-freezer (60° below).

After quick-freezing, the 5-lb. cartons are put in 50-lb. boxes and stored in a freezer (10° below) till shipped to retailers.



Smaller cartons for shrimp than those shown are also used. Some of the small shrimp, after grading, go to the peeling and deveining machines.



Peeled and deveined shrimp are then sent through a high-pressure spray wash to be sure that the sand vein is washed away.

The shrimp, peeled, deveined and washed, are put on sterilized trays and sent to the quick-freezer.

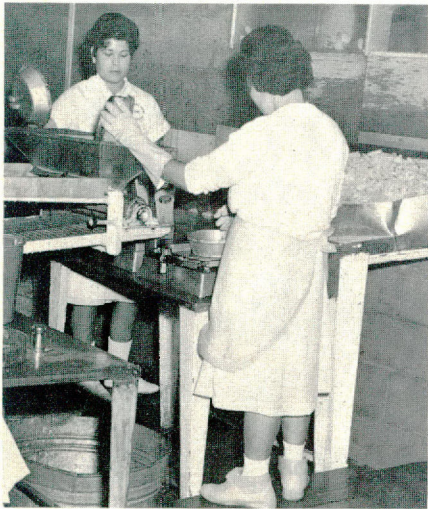




Heavy gloves protect men handling shrimp in the quick-freezer. Freezing time up, one workman pushes the rack to another outside the vault.

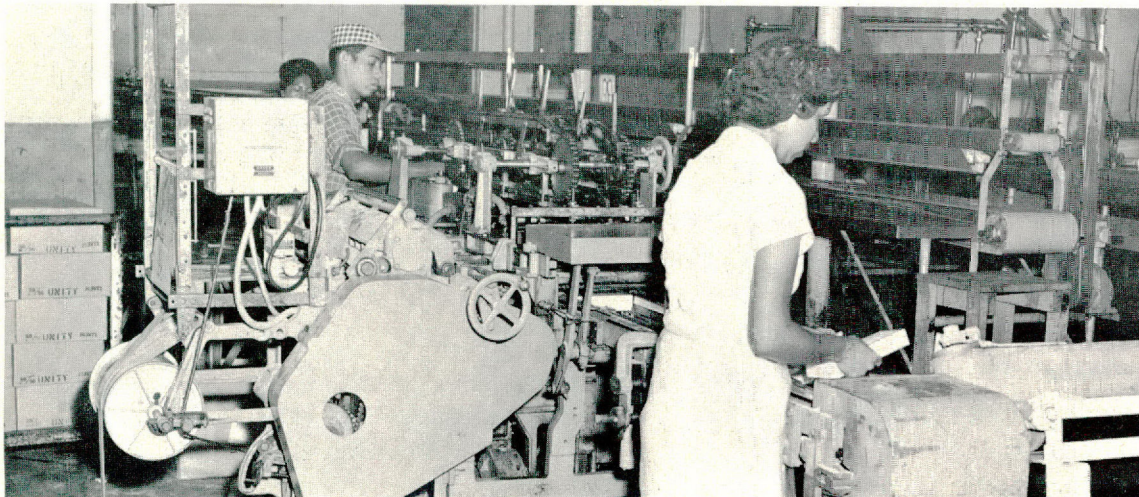


In next step, the frozen shrimp are emptied from the trays into a bin.



The frozen shrimp are weighed (6 oz.) and dropped onto a conveyor belt, which carries them through a spray of water, glazing them. Quality is checked throughout the packaging.

After the shrimp are glazed, they are dumped into packages, which are closed and placed on the conveyor belt to the wrapping machine.



After the wrapping machine seals and wraps each 6-oz. package, these containers are placed in boxes and sent to the storage freezer to await shipping.

A Measure of Success

by CURTIS CARPENTER

BIG GAME HUNTERS recognize only one system for measuring and scoring trophy heads: the Boone and Crockett Club Scoring System first established in 1949. The system is not complicated and can be used by any conscientious hunter. It is undoubtedly as fair a system as could ever be devised. Unfortunately, few sportsmen ever take the time to study the system, or even consider it. As a result, many beautiful heads are stashed away in attics and store-rooms today that probably are record book material.

Texas is not a state noted for its big deer. Both our whitetails and muleys are small in comparison to those of other states. However, small deer quite often grow prize-winning antlers. It's quite possible that many Texans now have antlers hanging on their den walls or across a rafter which could place in the Boone and Crockett Record Book. It doesn't matter when the deer were killed. If the antlers are in good condition and fastened securely to the skull, they can be measured. This is one of the great features of the BC Scoring System.

The present (1963) world-record typical whitetail has a total score of 202. It was officially measured in 1960. It was killed by John A. Breen near Funkley, Minnesota, way back in 1918.

When the record book was published in 1958, Texas had an even dozen heads with scores high enough to qualify for the record book. One set of antlers, owned by Henderson Coquat, killed in Webb County in 1949, placed sixth in the world with a 183 $\frac{3}{8}$ score. Another owned by Eugene Roberts, also killed in Webb County, back in 1924, scored 177 $\frac{2}{8}$ for sixteenth place. I have just finished measuring one belonging to

An old set that was hiding its glory is now in the limelight as a record rack. It is owned by Ted MacIntyre, of San Marcos.



Ted MacIntyre Jr., of San Marcos, that scored 168 $\frac{3}{8}$, enough for the record book. It was an old set of antlers, but a beautiful rack which would be prized by any hunter. MacIntyre dug it up, measured it himself according to the Boone and Crockett rules and decided it scored highly enough to call in an official club measurer; he was right. As a result, Texas will have another head in the world record for typical white-tailed deer classification.

In the non-typical whitetail class, Texas holds the first two places, with scores of 286 and 284 $\frac{3}{8}$. The nearest competition has a score of 245 $\frac{3}{8}$ and was killed in Canada. One other non-typical head taken in Texas scored 203 $\frac{1}{8}$ for twenty-second place.

Texas has not placed in the mule deer scoring. It's possible that a record head taken in the state could be found. One pronghorn was recorded in the 1958 record book. One other and possibly more have since been taken. A record mountain lion and one jaguar killed in our state are in the record book.

Some are already asking questions as this article is read: "What is this typical and non-typical bit?" It is explained well in an excellent book just published last year and authored by the late Mr. Record Book himself, Grancel Fitz. The fine guide is called

How To Measure and Score Big-Game Trophies. Fitz explains, "Whitetails rarely have more than five normal points on each antler, although some heads have six, seven or even eight. The heads with a lot of extra, abnormal points (some have as many as 30 or 40) are now ranked in a different, non-typical class." Fitz continues: "There is no logic in comparing them with normal specimens, for these are freaks, caused by a condition of glandular imbalance like that which produces the 'bearded ladies' or the eight-foot giants of the circus."

As a result of this condition, explained the author, "our modern scoring now ranks the freak whitetails, quite automatically, in their own special list. As a result, a big normal 10-point head might get a higher ranking on the typical list than a 30-point head gets in the non-typical records."

The official scoring system also recognizes a typical and non-typical class in the mule deer.

Another question: "It sounds wonderful, but can just anyone measure his own set of antlers?" Yes, is the answer. You can measure your own head first to determine if it scores high enough to contact an official measurer. These official measurers have been selected by the Boone

and Crockett Club to insure continuity of method of measurement and thereby maintain official lists as accurately as possible.

The regulations require that a head cannot be measured for official record for at least 60 days after the animal was killed. This waiting period allows for the natural shrinkage of antlers as they dry out, and is one reason ancient heads can be measured and scored right along with new trophies.

Don't pick up your phone and call an official measurer until you have a good idea the antlers will score in the record book. The Club has an official score sheet which explains how a head must be measured. If you want to check yours,

Boone and Crockett Club, 5 Tudor City Place, New York 17, N.Y.

Before you write, there are a few things you can do to determine if your head will rate. First, a typical whitetail head must score at least 160 before it can go into the book. A non-typical head should be 160 or better. The lowest score to qualify for the record for mule deer is 185 or better. The minimum score for pronghorn recording is 80. The mountain lion and jaguar minimums should be considered before sending in for a score sheet. Measuring the two cats is done on the skull after a 60-day drying period.

Grancel Fitz, in his big-game trophies measuring guide, gives some qualities to consider first in

good spread that is not due to freak points or freakish conformation, 3) antler points that are long and of the normal type, and 4) as far as possible the kind of symmetrical beauty found in the typical antler pattern of its species.

"No single specimen, in all of our record lists, tops all the others of its species in all the desirable features," reminds Fitz. "So the all-around worth of a trophy must depend on how well it combines them."

Measuring most horns and antlers is done in much the same manner as that required for whitetails. Fitz suggests a dependable and consistent method, especially suited for measuring the main beams. "With a pencil, make a series of dots along the whole length of the antler, placing each dot in the center of the outside curve at that point. Dots should be as close together as the curvature of the antler requires. Now, by drawing a pencil line through all the dots along the beam, you establish the correct line to be measured. This line can be measured again and again.

"Then," continues Fitz, "starting at the antler tip, lay the tape along the pencil line as far as the line is straight. This may be several inches, or only a fraction of an inch, but as soon as the penciled center line curves away from the edge of the tape make a crosswise mark. Half of this mark should be penciled on the steel tape, and half on the antler." By shifting the tape and placing the lines to match you can measure the beam or antler more easily and accurately. Measurement on all antlered species should be made to the nearest eighth of an inch, and recorded in eighths for easy tabulation.

If you think you have a record, contact an official measurer and make arrangements with him for a meeting. Don't expect him to come to you. These people are not compensated in any manner unless in the

• Continued on Page 29



Normal points are measured from the nearest edge of the main beam over outer curve to tip.

write for the kind of score sheet you need, mentioning the species you have to measure. The address is

determining if a specimen is really in the typical record class: "1) antlers that are both long and massive, 2) a

MARCH is a month of high wind, chilly rain and the famous Ides. Some might advocate an eleven-month calendar instead of twelve. The first 15 days of March, they might say, should be donated to February, which is a short month anyway. Deeding the last 16 days to April would clean up the whole thing.

Proponents of fall hunting days and spring fishing nights are somewhat bewildered by the crispy-cold of March, and even the geese don't feel much like bucking the headwinds for the return trip north. Ducks hunt the little willow-shaded inlets, buttoning their feathers and trying to shut the door on the wind.



Around the house, the dog edges a little nearer the fireplace and nuzzles his head between his paws, now and then opening one eye to look at you, puzzling a little about the way you seemed to be all fired-up about the bobwhites for a while, then suddenly lost all interest in them. This, he recalls, happened just as his feet were getting toughened to the cold ground.

March is an in-between and a get-ready month. The guns are long overdue for tidying up, after trips through weeds, brush and a good soaking in the duck blind. The stocks need linseed oil and an application of palm. The barrels need solvent. There's some sandy soil in the action of the rifle, and the shotgun has a surface-rusty place that needs house-cleaning.

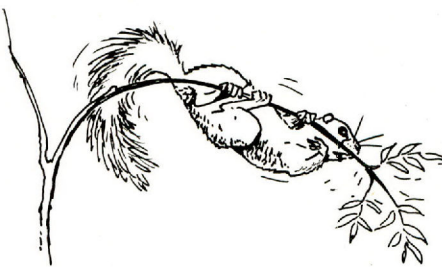
It's a month of boats. Rough water and a shallow bottom took care of last spring's paint, and the limb on the side of the duckblind left a scratch. As visions of fish begin to splash around in your mind, the

paint brush and scraper suddenly have handles designed for your hand. Boats are a lot of trouble in March, when using them isn't much fun, but by April the work will be forgotten, and you'll begin to appreciate them early some morning when the shad start teasing the keeper bass.

On March days, when the wind blows itself into exhaustion and lies down to rest awhile, you can see early bream nests in knee-deep water. If you flip a lure into a muddy spot in the water, you are likely to stir up a bass which has been rooting out a nest in the gravel, getting ready for the eggs that will produce some fine fall fishing.

Up the side of the hill you'll find a depression, with a soft lining, prepared by a cottontail in the business of playing house, and it might be filled with little puff-balls of writhing fur. They'll grow fast, and be pretty tricky targets next October.

Squirrels that you see in March are so busy gathering nest-twigs that



they don't pay you much attention. Coyotes are luring each other vocally, and jackrabbit babies are exploring the world. The trees, still December-bare, are creaking and groaning as if they're bursting with new life, and nature is poised like a

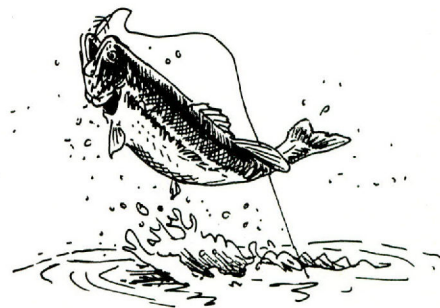
Ideas of March

by W. R. LONG

I&E Officer, Tyler

cougar on a rock, waiting to leap into blossoming April.

Soon now, April showers will wet the earth and trees, and dogwood blossoms will spring up like soap



suds along the tree limbs, and there'll be an old bulldog-jawed bass lying in wait alongside a log.

March nights, not being fit for anything very exciting except maybe running a fox or 'coon through the woods, are ready-made for hours of tackle mending. A new level-wind here, and a new spool of nylon there, and an old reel will be so slick that your hands will itch to get it to water. Last fall, you probably just dumped your tackle box into the closet without thanks, grabbed the shotgun and closed the door. Now is the time to give it a friendly pat and a cleanup.

Maybe March had better be left in the calendar after all, if not for the weather and work opportunities, at least for the smell. It has an odor of saddle soap on worn boots, of waterproofing and gun oil, winter dry waders and boat caulking and new paint and wet dog. It's a sort of Thanksgiving smell of what has been, and a fragrant promise of spring days ahead. **

Mutual Benefit

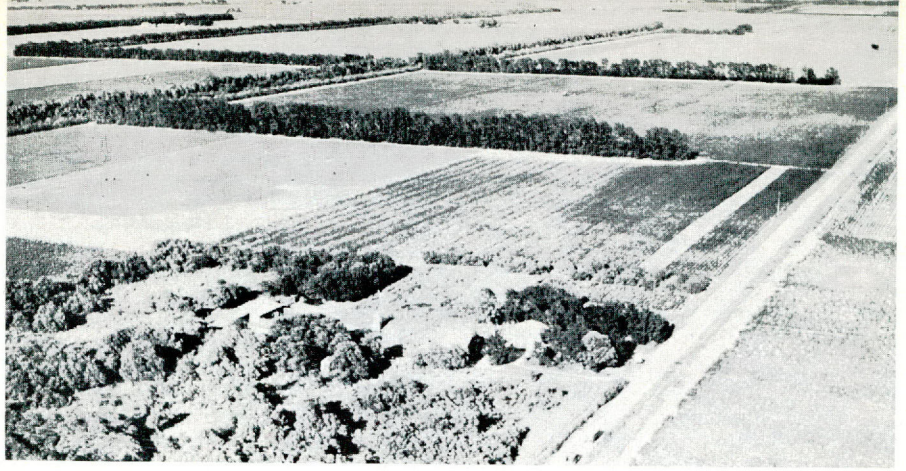
by VERNON HICKS

Soil Conservation Service

A close relationship exists between a program of good land use and soil and water conservation and good wildlife habitat, according to H. N. Smith, state conservationist, Soil Conservation Service of Temple. Poor, eroding, overstocked farm and ranch lands can't do anything but produce a poor crop of wildlife, whereas farms and ranches on which there is good land use and a sound soil conservation program being applied have the proper setting for producing a plentiful crop of wildlife.

A leisurely drive through the Hill Country of Texas lends evidence to this statement, said Smith. Some range lands are heavily overstocked with sheep, goats, cattle and horses. This kind of rangeland produces very little food and cover for wildlife. Nature's cover of grasses, legumes and forbs are kept grazed down close to ground level, while leaves of shrubs and trees are stripped as high as goats and deer can reach. This type of range management is detrimental to the welfare of both wildlife and the livestock industry. The production of forage for livestock and deer is greatly reduced. Seeds of grasses, legumes and weeds which normally produce abundant food and cover for turkey, quail and dove are reduced. Cover for turkey nests is destroyed, and turkeys which do find suitable nesting sites do not have sufficient ground cover to protect poults from predators.

Ranches in this same area with a good cover of grasses, legumes and other plants not only provide a good habitat for deer, turkey and other forms of wildlife, but also have a much higher carrying capacity for livestock, stated Smith. More rainfall is held on the land, enabling greater forage production, more economic livestock production and



Windbreak plantings in the plains country bring many benefits. Besides reducing wind damage, they shelter insect-controlling birds and, not least important, add beauty to the landscape.

Photos Courtesy of USDA-SCS



Grassed waterways to quail mean food and cover, and travel lanes for ranging over the farm. They also provide habitat for other ground-nesting birds, such as meadowlarks and sparrows.

a reduction in erosion of top soil.

A similar situation exists in all parts of the state, Smith explained. In East Texas, pine production is increased by thinning dense stands of hardwoods. These dense stands are selectively thinned out to increase

the production of pine seedlings, but at the same time this process increases the production of vines, shrubs, forbs and grasses which provide a greater food supply for deer.

Farmers applying a complete con-

• Continued on Page 27

Openings in large woodland tracts are very beneficial to game birds and animals. In dense woods, food is usually scarce where heavy shade prevents the growth of browse vegetation.



Tied to

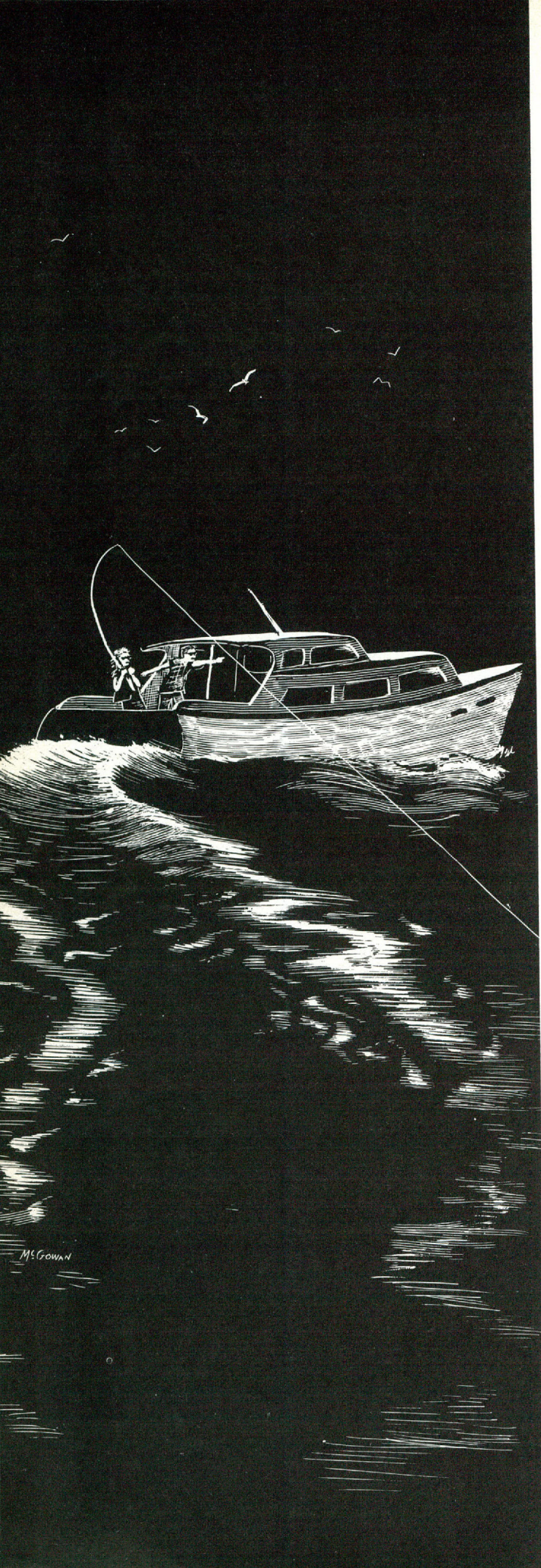
by J. B. BAUCHMAN

THE TARPON exploded out of the calm October water like a Polaris missile taking off. For more than 20 years I'd wanted a big tarpon more than any other trophy, and this one made my wildest hopes look puny. But, it was on my wife's line.

Resisting the urge to choke her, I stayed out of the way and offered excellent advice until she told me to shut up.

Ida is a little woman, and she'd had only a few days' saltwater experience before that, catching much smaller fish from my little boat and Henry Weaver's big one. But she's dead game, and she struggled with that monster long after she was trembling from fatigue. She wouldn't let Don or me touch the rod. Although she is a perfect lady, she said things that would have shocked us if we hadn't been in similar situations ourselves. More than three hours later, the too-small hook wore itself out of the tarpon's jaw. That afternoon, I thought I'd have to carry her off the boat. No, she made it back to the hotel under her own power. I innocently gave her a rub-down with a new liniment that set her on fire for half an hour. The relief after that wore off was so great that she felt a lot better.

The next morning, sore all over but determined, she was waiting with me at the dock for Don to show up. Her leader broke after an hour and a half on one that was as wide as a hog. I caught one about five feet, eight inches, and the next and last day, she finally scored on one a little smaller.



M. S. GOWAN

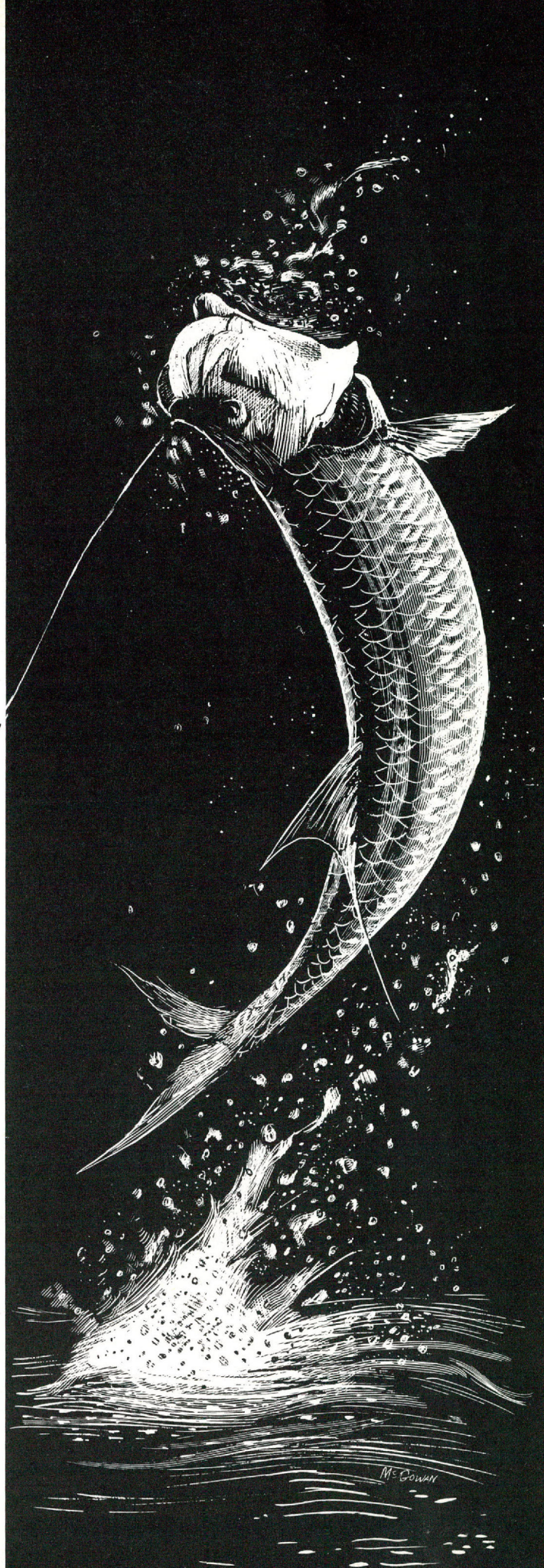
Twister

Our guide, Don Farley, is so modest and kind, he must not realize he's something of a legend. He's boated thousands of tarpon; some people think he invented them. In those three weeks, we each had several strikes, more tarpon action than I'd ever seen. We made arrangements to come back the next week.

A few days later, long before day-break, there we were again, waiting bleary-eyed and full of carefully unspoken hopes. I had a strike in the surf before the sun rose. He looked monstrous when he came bursting out of the water more than a hundred yards astern, and he scared me half to death. Be calm! Show these people your nerves of steel! Nuts.

Ida slipped a thumb-stall on me the wrong way, with the thin cotton side down, and when I clamped down on that runaway horse, it nearly fried my finger. I quietly explained the mistake to her. Now my reels have Pflueger's leather thumb-brakes on them. They're the berries. You can actually play and land a fish without the star drag using one of them. By the way, your reel isn't a winch. Thumb it when the fish runs, both to ease the strain on the drag and to put more pressure on the fish. Thumb and pump, smoothly, to take in line. That handle is for picking up the slack you gain from pumping or when the fish is running toward you. Guides at Port Aransas have seen people twist the handles off reels.

Anyway, there I was, with a throbbing thumb, steely nerves and shaking hands. The fish headed for South



America, and we had to go along. Luckily, it was a calm morning, and the glimpses I got of the sunrise were beautiful. Once the guide admitted, cautiously, that it looked like a big one. You see, it's considered bad luck in some circles to discuss the size of the fish you have on, most particularly when it's a large one. And I needed all the luck I could get.

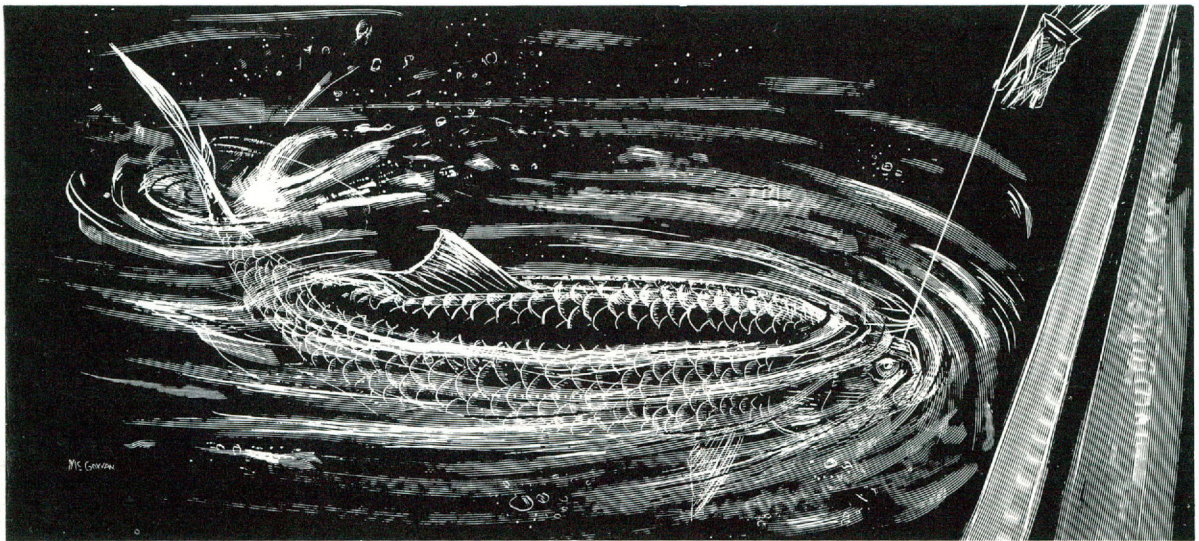
The fears of the hook being thrown, line or leader parting, or a big shark taking a bite of its favorite dish of tarpon are pretty agonizing. It must be something akin to waiting to hear if the jury is going to

had jumping tarpon from other boats splash water on me, and, believe me, I was looking straight up at them. It's quite a sensation. A big one that jumps into a boat easily can break a man's arm or leg.

Finally, I worked the fish up pretty close. He must have let me, because he took one look at the boat and zipped off like a torpedo. A few minutes later, I worked him up again, and off he went again, not so far this time. This went on a few more times, each run getting shorter. We were both rather tired, but Don had drilled the secret into me—the more pooped you are, the more

out of water, on the back of the boat. Tarpon have jumped into boats occasionally, but nobody in his right mind brings one aboard, regardless of its condition.

I wanted to take it in and have it mounted, but my worries weren't over yet. Few people realize the size and fearlessness of some of the sharks down there. Charley Borup, Port Aransas guide, said he had on a big tarpon, six feet or more, when a shark shot out of the water with it in its mouth. As the shark rose, the cleanly severed ends of the fish fell away. Boats bringing in tarpon have had sharks' teeth embedded in their



hang you or turn you loose.

I thumbed and knuckled the spool as best I could and wanted to put my foot on it. If you let up on a tarpon for only a second or two, he rests, somehow, and can go just that much longer. If you can only keep attached to a sailfish, he'll exhaust and sometimes even kill himself. You play other fish, but you have to fight a tarpon, every second and every foot of the way.

This fish made a series of jumps three or four times. That's when you can really get into trouble. They go awfully high and thresh about worse than a wounded rattlesnake. Hooks usually fly then. Twice, I've

pressure you have to put on the fish. And one a lot smaller than this has to be lying on its side before the hand-gaff can be slipped into its lower jaw. By that time, you're lying on your side, too.

Two miles or so off-shore, and after an hour and eight minutes, Don finally decided he might not get a dislocated shoulder or be yanked out of the boat if he tried it. It worked, and I was most grateful. The gaff is a huge barbless hook on a doubled length of rope. Tarpon can be tagged and released without harm with the gaff. If you want one for mounting, the rope is tied to a cleat and the fish left hanging, head

transoms. That's a rare occurrence, true, but I sat on the stern of the boat and sweated just a little more on the way in.

At the docks, the fish was measured. It was seven feet, one inch long and weighed 176 pounds. It is apparently the third heaviest tarpon caught in Texas waters and, of course, much, much bigger than I'd ever hoped for.

But I think the first one Ida lost was larger. She wants to go back for "that one with the sore jaw," as she calls it. Now, my boat has been painted and the motors have been put in first-class shape. I'm working on my rods and reels. We have an appointment. **

ALL OUTDOORS

MARCH BRINGS not only a promise of good fishing and a chilly beginning of the season's picnicking but also a reminder of the value and price of such outdoor relaxation. It brings National Wildlife Week, March 15-21, with its theme, "America Needs Outdoor Recreation—Act Now To Provide For the Future."

The observance is sponsored by the National Wildlife Federation, and at the local level it is conducted by sportsmen's organizations and other conservation groups which are members of the state affiliate of the National Wildlife Federation. Texas affiliate sponsor is Sportsmen's Clubs of Texas (SCOT), and the state chairman is Herbert Frensley.

Since the first proclamation of Wildlife Week in 1938 by President Franklin D. Roosevelt, the observance has brought to the country's attention such problems as the need to preserve endangered wildlife species, the importance of conserving wetlands for waterfowl, the desirability of fully developing wildlife and outdoor recreation potentials in public land management policies and the abatement of water

pollution in river basins and waterways.

With the needs and slogans of scores of specially designated weeks whirling in the average American's mind, it is a temptation for him to write off this year's Wildlife Week as "TOO MUCH!"

In a world in which projected holiday death tolls are broadcast at short intervals on every occasion and television commercials proclaim the number of drops of liquid a solidified blob of some product contains, the statistics mentioned in Wildlife Week stories and news releases may be viewed by unseeing eyes. The fact that America's population is to be 260 million by the year 2000 and that nine out of 10 persons of the present population participates in outdoor recreation may not even register with the number-badgered American.

But on these pages are a few names and faces that might speak more effectually than statistics. They are just a few of the many Texans who enjoy outdoor recreation—many of whom have sent in their picture-proof of such pleasure. **



A proud son Mark grins his approval of the fine 11-point buck killed by his father, Ken Mayfield of Rockdale, in Milam County last season.



With dad merely setting the hook, Hudson Perry, 4½ years old, caught this cat.



Camping and picnicking are for the whole family. This group enjoys forgetting their personal and family routine in Bastrop State Park.

AWAY to the north, up in the Panhandle is the largest state park in Texas . . . the Palo Duro Canyon.

Half asleep in your camp during the early hours of the night, strange little puffs of breeze float into the canyon from the rim above . . . bringing the pungent but pleasant smells of prairie plants. The faint little smells seem to remind you of something but you can't quite put your mind on it . . . perhaps tomorrow you can think of it . . . It will be a good day for a hike. . . .

Night time in the canyon is the time for the coyote, often heard hollering from the rim above or somewhere up a side canyon. Red and gray fox are crossing the river while the 'coons dig in the sand for shell fish and clams. Owls and eagles, both bald and golden, are in the canyon . . . and many species of song birds, redbirds, prairie falcons and blue jays . . . quail killers. The blue-scaled and bobwhite quail love the canyon too. And there are whitetail and mule deer, and the elusive aoudad sheep, known to the local ranchers as the "Ghost of the Canyons."

Some 15,000 acres of richly colored sandstones, rough juniper brush and 1,000-foot cliff walls mark the Palo Duro as the prime recreation area in the Panhandle. The park annually plays host to more than 200,000 people and is located just 12 miles east of Canyon and 18 miles southeast of Amarillo.

Although the park covers some 15,000 acres, it actually is much larger in so far as its aesthetic potential goes. The Palo Duro Canyon is some 122 miles long, stretching from the Randall County university town of Canyon, southeast to Turkey, where the canyon is dozens of miles wide.

Standing on the rim at the park



To be ready for any rescue emergency that could arise in rugged Palo Duro Canyon Park, Jim Hughes, park ranger, masters a few rope tricks and climbing techniques on the cliff walls.

Canyon of Many Faces

by JIM THOMAS
Amarillo Globe-News

entrance, the visitor is presented with a delightful view of the depths of the canyon stretching away into the distance until the far walls fade out in haze. In the clear, clean air of the High Plains, at an altitude of 3,500 feet, that is really some distance.

Leaving the prairie town of Canyon, following the road signs to the park, the new visitor wonders what on earth there could be of interest in the bald prairies of the Panhandle. From the highway the prairie stretches away to the horizon, broken only by pasture fences and an occasional playa lake.

Suddenly, as the road takes a bend over a slight rise, the earth seems to open up, making the visitor blink in astonishment. There is the canyon, miles wide, nearly a thousand feet deep and snaking across the prairie for more than 120 miles to the southeast. Your surprise is no greater than that of the first European to see the canyon . . . Francisco Vasquez de Coronado who discovered it in 1541, naming a spectacular erosional remnant "El Faro," The Lighthouse. No less surprised was Charles Goodnight, the first rancher in the Panhandle, who, in 1874, brought the first cattle to the Texas High Plains and the canyon. The sudden appearance of the canyon so frightened Goodnight's livestock that the panic-stricken mules pulling the chuck wagon nearly dumped the entire wagon, cookie and all, into the 1,000-foot canyon.

Entering the park, the first impression is the rustic stone work of the gate building and the friendly western greeting of Ranger O. N. King, native Texan and dispenser of information about the park.

Entrance into the Palo Duro costs a dollar per car, which goes toward the maintenance and development of the park, and retirement of bonds for the land purchase.

Inside the entrance, the twisting paved road leads around the rim of the canyon to the overlook point where the stone concessions building is perched high on the cliff's edge. When the park was originally built in the early 1930's by the Civilian Conservation Corps and the National Youth Administration as a job-supplying public works project,

the present concessions building was designed and intended as a two-story hotel. Plans were halted before the hotel could be finished, and it has been used as an observation point and concessions area in recent years. Large plate-glass windows along the canyon side of the building let visitors look directly out into the canyon as though they were standing on the cliff's edge. . . . which they really are.

Winding down the park road into

then on the other, undercutting towering sandstone and clay cliffs on one side and depositing silt in the flats on the other. Its banks are snow white with crystals of gypsum that have precipitated out of the water where it has splashed and washed up. Thick beds of the mineral can easily be found in any of the lower cliffs in the canyon, extending back into the red walls as far as anyone would care, or dare, to dig. Curving through the five concrete low-water



Wanda Mayfield and Paul Currier (left) and Betty Currier, Kim and Weldon Mayfield (right), all of Amarillo, enjoy a lazy after-lunch card game in the picnic area near the river.

the canyon itself, the pavement cuts through the vertical face of Triassic Peak with the canyon cliff getting lower and the peak face getting higher as the road descends. A pair of sharp horseshoe curves and the visitor is on the canyon floor. . . . a world totally different from the prairie.

Where the flat prairie is virtually void of trees and running water, the canyon floor is choked with broken hills and juniper brush, interspersed with sharp-thorned mesquite that towers over any man's head.

The Little Prairie Dog Town Fork of the Red River meanders through the canyon, first on one side and

bridges in the park, the river is a peaceful sight, hardly giving the appearance of a river at all. But like most West Texas rivers, Palo Duro Creek can be mean. . . . as noted by the piles of trees and brush wedged high up on the faces of the cliff and caught in the tops of the age-old cottonwood trees that border and shade the creek banks.

This was demonstrated last year when a sudden heavy sod buster dumped several inches of water onto the prairies above the canyon. Without notice, the peaceful canyon creek was a raging torrent of blood-red mud and trees, carried down from above. Park Ranger Bob Wat-

son, who lives in the canyon at the end of the park road, had just crossed the first water crossing in the park and made his morning report at park headquarters up on the prairie that the river was down and running normally. By the time he returned to the canyon the first water crossing was impassable. Within an hour it would have been suicide to cross. Hundreds of campers were trapped in the park. Watson was flown into the camp areas in a helicopter to calm and aid the stranded campers while the then Head Park Ranger Buddy Hoskins led a rescue party in on horseback. It took three days for the water to go down.

In Palo Duro Canyon State Park there is just too much to see and do in one afternoon. Even a full day just isn't enough.

The tall cliffs are opened every mile or two by huge side canyons from which flow little streams, from hidden springs back up the canyons, beckoning the hiker to investigate.

As you climb back up these canyons, the stream bed rises until soon you can look over your shoulder and see the main canyon stretching below; the higher you go, the better the view. Huge boulders soon block the way as springs seem to pop out of the canyon walls. Large pools of water appear in the least expected places, often with 30- and 40-foot dry waterfalls staring down like huge sculptures. Fish are seen playing in the shallows of the pools and tracks of beaver, coon, bobcat and coyote are usually found in the soft wet sand around their rims.

Fruit trees, Rocky Mountain junipers, red juniper, and tall, wild waving grasses are found in rocky pockets near the springs, with ferns beginning to appear as you travel farther up the sheltered depths of the side canyons. High above and nearly to the rim of the canyon are seen little splotches of green, marking the outpourings of small springs from the canyon wall.

Many visitors, seeing these springs and their isolated islands of green amid the gray and red cliffs, attempt to climb to them. They look so close . . . and yet are so far. Distance is always deceiving in the canyons. A mile looks like just a couple of hundred yards. Four or five miles look



Sharing the delight of young Mike are Nadine Vuccola, Tom Darnell (standing), Jean Vuccola and Leonard Vuccola, all of Amarillo.

like a mile. . . and usually it's more up than down. But once the high climb is made and the cooling waters of the springs sampled, the climb seems worthwhile. . . and then to turn around and see the view! Just don't get caught in the canyon bottoms in a rain storm.

That, however, isn't a real worry as it rains only three or four times a year. Sod busters only come once a year. . . in the dry years.

Horses, a ski lift for viewing the canyon, camping and picnic areas

are all available for better enjoying the canyon. Modern tiled restrooms at the end of the paved park road, drinking water in the canyon (don't drink out of the creek or they'll call you pickle-mouth), and a small-gauge scenic railroad through part of Timber Canyon are all available.

One of the greatest ways to enjoy the beauties of the vast Palo Duro is to camp there overnight. As the lonely island is different from its surrounding sea, the Palo Duro is a sanctuary from the nearby prairie and its weather extremes.

At night the canyon is shelter from the cold winter winds. . . and a place to find shade during the summer days. "Stars at night are big and bright" and "The sage in bloom is like perfume," are accurate cliches for the canyon at night. The towering, dark canyon walls seem to frame the sky at night, making the stars leap out in their brightness.

There is much to see and do in the canyon. The camping facilities in the canyon and the new and modern motels in nearby Canyon and Amarillo offer the best for those who want to see . . . in comfort.

Bring the camera . . . and plenty of color film . . . for the Grand Canyon of Texas. **



In the twilight, Park Ranger Hughes (far right) explains the geology of fascinating Palo Duro Canyon to visitors Jim and Mary Simmons and their sons Robin and Tommy of Amarillo.

Happy Fishing Grounds

by JAY VESSELS

SOME WATERS in the parks rate among the best in the state. Catfish fishermen will tell you that Fort Parker State Park is superior for channel cats. Crappie fishermen also like this location which is in north central Texas, just east of Waco.

Way down in South Texas, just west of the famed Coastal Bend country, Lake Corpus Christi State Park is known widely for its catfish angling. Bass catches there also beckon the spring trade, even from distant northern parts of the United States.

Lake Whitney State Park, scene of a pending half-million dollar improvement program, is an early spring fishermen's delight. It is famed for white bass, blacks, crappies and catfish.

Likewise, Possum Kingdom State Park, one of the older installations, has a great following among the spring anglers. Whites, blacks, crappies and catfish prevail there in quantities which lure the fisher folks particularly from the heavily populated Fort Worth-Dallas metropolitan area.

In the sprawling Highland Lakes zone, Inks Lake State Park, 60 miles northwest of Austin, attracts its share of the spring anglers. It is particularly good for black bass.

Picturesque Caddo Lake State Park, in the extreme northeastern corner of the state for many years has been the favorite of spring bass fishermen.

Way down on the Mexican border, Falcon Lake State Park, now in the process of being activated with a quarter-million dollar improvement program, good fishing already has been available for many weeks. Bass—both whites and blacks—crappie, channel and blue cats, and perch have been fattening visitors' stringers.

One of the prized fishing areas, where state park conveniences are now on the drafting board, is at Dam "B," near Jasper. Oldtimers consider this a fisherman's paradise, especially designed for bank fishing.

Other prime fishing spots include Lake Brownwood State Park, Atlanta State Park and Huntsville State Park.

On the coast, complete state park



The stringer held by L. V. Ferguson, former park manager at Possum Kingdom, where the fish were caught, is almost more than two arms can lift.

facilities are limited to only one place—Goose Island State Park, just west of Rockport, but surf fishermen do mighty well at Velasco State Park near Freeport, and at Brazos Island State Park, better known as Boca Chica, near Brownsville in the extreme southeastern corner of the state.

Stream fishermen patronize both Garner State Park, near Uvalde, (Frio River) in Southwest Texas, and Blanco and Kerrville State Parks west of Austin.

Some have cabins or shelters and all of them have camping areas. No fishing fees are charged in State Parks.

Executive Director J. Weldon Watson of the Parks and Wildlife Department said funds already allocated plus plans for the future will combine to adequately serve the Texas fishing fraternity in the not too distant future. "Some of our State Parks provide model fishing grounds at present," he said, "but our modern planning program will greatly accelerate fishing recreational opportunities."

He suggested that fishermen unfamiliar with the various areas write to the State Parks they plan to visit to ascertain facilities available. **



A relaxed couple find fishing at Caddo Lake State Park an idyllic way to pass the time.

Getting the Drift of It

by CLIFFORD FARMER

I LEANED MY ROD against the side of the boat, the lure dangling in the water, while I cleaned the weed-fouled prop. Noticing the reel handle turning as the lure settled, I reached to snap on the click-drag.

Lake Texoma was a little choppy that day, not too rough for a boat, but too rough for comfortable trolling, so I had been casting in the protected water along shore. As I worked with the tangled weeds, I noticed that the boat was drifting slowly out into the lake.

Suddenly, the reel drag let out a high-pitched scream and, as I turned, I saw that the tip of the rod extending over the boat's side was bent sharply, with the line playing out rapidly. I grabbed the rod, thinking at first that the jig was hung on the bottom and the drifting boat was stripping off line. But as soon as I felt the throb of the rod, I knew a fish was on the line.

With thumb on the spool, I struck to set the hook. I felt something solid and heavy moving away. Releasing the click, I added pressure with my thumb. Half the line was already out.

A beautiful bass lunged out of the water, dragging my line, shaking

his head as he fell back. I reeled fast when he reversed his course. Then he turned and took out more line. Again he jumped, trying to throw the lure. Unsuccessful at shaking it loose, he went below and sawed the line back and forth through the water. I put on pressure and he returned to the top. This time he didn't clear the surface but made a big splash as he rolled over. He had lost some of his steam, and I soon had him played to the side of the boat and into my net. I guessed the weight at four pounds as I put him on the stringer, my first keeper of the day—taken from a line dangling over the side of a drifting boat!

By this time, the boat was 300 yards from shore. I'd been too busy with the bass to give any thought to why the fish had struck. I tried to figure out what had happened. You don't catch a four-pound bass by accident. I remembered that I had put down the rod to tilt the motor. The rod tip had extended over the side of the boat; I'd forgotten to set the drag and the 3/8-ounce jig had settled to the bottom, playing out line as the boat drifted. When I had engaged the drag, the boat pulled

the lure, probably barely moving it along the bottom. There was just enough motion of the water to gently rock the boat and that, I reasoned, had added a little action to the bait, giving it a life-like slow crawl on the lake floor.

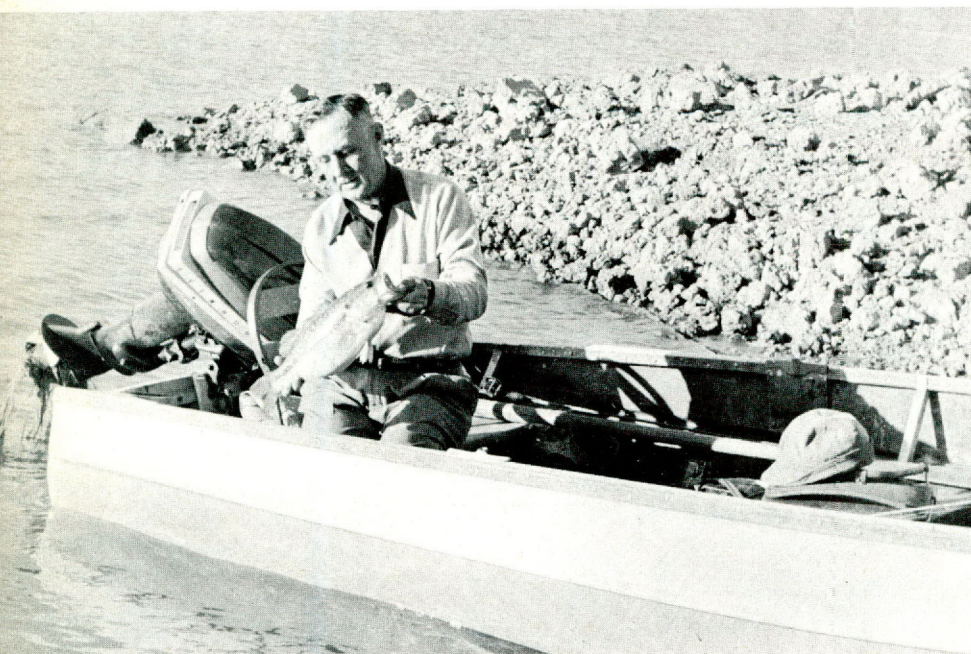
As I hurriedly finished cleaning the weeds from the prop, I wondered if I could stage a repeat performance. I started the motor and pulled in close to the shore. Then I cast the jig and trolled back over deep water. No strikes. I tried it again, but this time killed the motor and allowed the boat to drift.

I played out line and could feel the jig bouncing along the bottom. The waves rocked the boat just enough to give an irregular pull on the line, and I envisioned the jig-and-rind crawling along, dropping down off the stone ledges like some live thing. Then I felt a slight tug on the line. I thought the hook was caught on a rock, but it came loose. The tugging was repeated. I struck hard and had another fish on my line!

That day, two years ago, the weed-fouled prop opened a new world of bass fishing to me. I had tried "bottom bumping" before, trolling slowly, but I had never caught fish that way. I had cast sinking lures and tried to "crawl" them along the bottom. But I had not been doing it right. I'd been working them too fast, much too fast. That slow drifting boat showed me that I had never had the patience to make a bottom-crawling lure act like a living creature.

After my revealing experience on Lake Texoma, I tried bottom-crawling on other lakes. It didn't always pay off, mainly because I didn't find the fish. But, when I found a hot spot, usually a hole near a weed bed and a rocky drop-off into deep water, the slow-crawling, bottom-bouncing lure caught bass.

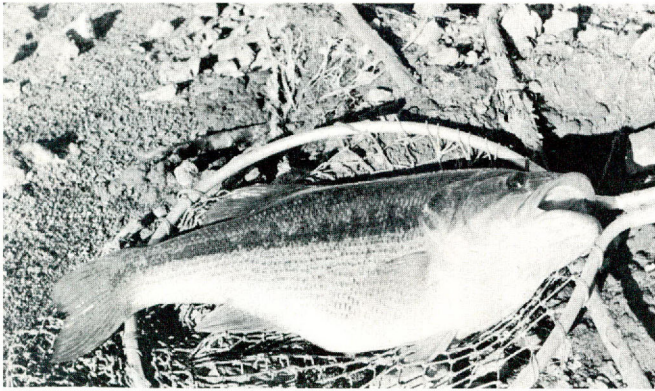
This trend-setting black bass started a whole new way of fishing for the author. It bit while, boat adrift, he was preoccupied with cleaning weeds from the motor.



As I experimented, I found that I could use the motor to troll against the wind if I had it tuned for a very slow turnover. Then, I'd cut the motor and let the boat drift back with the wind, pulling the lead-head lure on a long line so that it would follow the contour of the bottom. Sometimes I would add a little action by a slight raising and lowering of the rod tip, but if there were a rocking of the boat I found that it gave the lure all the crawling motion needed to attract bass.

On still days, when there was not enough wind to drift a boat, I had to learn new patience in retrieving my casts. It meant waiting for the lure to settle deep and then inching it along by a slow lift of the tip, taking up the slack as I lowered the rod.

Bass don't usually smash a bottom-crawled bait. You feel a slight tug as they pick up the pork rind or plastic worm and chew their way forward to the hook. I often strike too soon. There are times, however, when bass grab the whole works and take off. These moments call for fast strikes if they haven't already hooked solid. Practice helps, but many strikes are going to be missed which



The drifting method, together with jig and plastic worm, scored another success, with this handsomely displayed four-pound bass.

adds to the thrill of this unusual type of bass fishing.

In bottom fishing at night, I have found that it is important to be familiar with the area, going over it in daylight. The drifting technique is not suited to darkness so I anchor and cast. You are actually "feeling the bottom of the lake" with your lure and, with experience, you can tell when it is dropping over a ledge and when it is crawling along a smooth area. With a weed guard on

the hook, it is amazing how the jig-and-worm or the jig-eel will "snake" through and around rocks and brush. This, I think, makes the lure appear more life-like and accounts for much of its success in taking old hook-wise bass.

Although I don't enjoy fishing at night as well as in the daytime, I have to admit that some of the biggest largemouth bass I have taken struck after nine o'clock at night.

There are a number of lures on the market that may be used for this type of fishing. I have taken more bass on a hair jig and pork eel, but I expect I have used it more than other lures. Plastic worms and jigs are good, and in some lakes they seem to beat all other baits. The long pork eel, either on a plain hook or a jig, has taken many bass in deep water. On one occasion when fish were feeding on the bottom, I lost the last pork eel I had with me so I put on a regular bass-size white pork strip on a black jig and continued to take bass. The slow, crawling retrieve is probably more important than the lure. On another trip I did not get a single strike until I put on the jig-and-worm. Then I was in business, for sure.

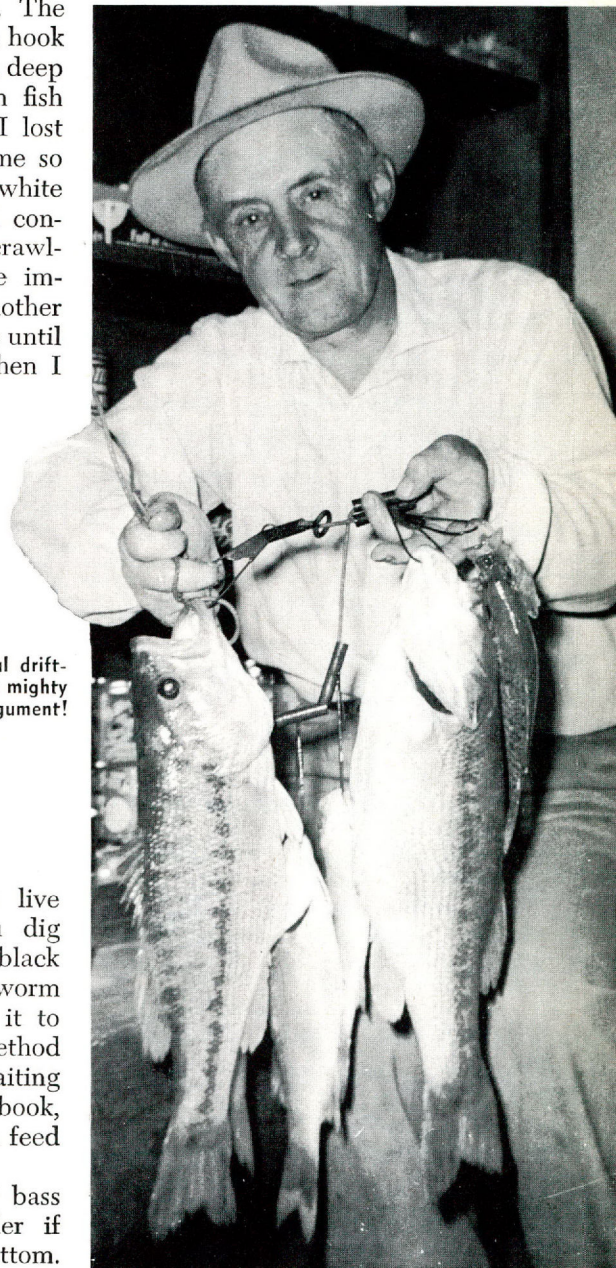
I have a friend who uses live worms (the jumbo kind you dig along the river bottoms) with a black bear hair jig. He hooks the worm through the head and allows it to trail behind the jig. This method catches fish, but it requires rebaiting after each missed strike. In my book, it is more fun to fool 'em than feed 'em, so I prefer artificials.

Before you try this type of bass fishing, you'll probably wonder if you are going to hang on the bottom.

You will. Even with weed guards on your hook, you'll hang up sometimes and lose some lures. Usually, when you hang, you can back the boat until directly over the lure and dislodge it. If you don't have the patience to lose an occasional lure, there's no use in trying this bottom-crawl fishing. However, bottom lures cost only half the price of top-water plugs.

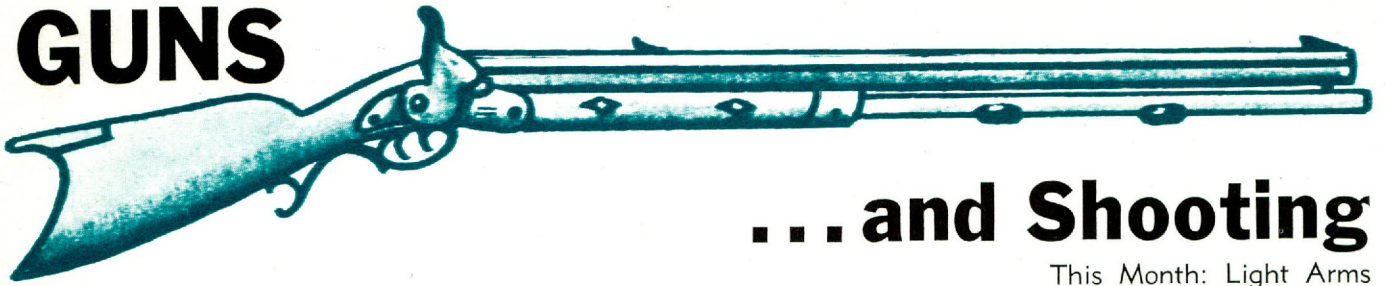
There are times of year when you can take more bass on surface plugs, and at such times you will not want to use the crawling lures. But when bass are not in shallow water and cannot be teased into striking top-

• Continued on Page 27



Our successful drifter produces a mighty convincing argument!

GUNS



... and Shooting

This Month: Light Arms

By L. A. WILKE

GUN DESIGNS, like most other things, move in cycles. It has been true for more than a century. Even muzzle loaders went through the same change-over. There were heavy guns and then light ones, but the light ones seemed always to emerge again despite gun designers and gun editors who for years insisted you couldn't hit the side of a barn with anything under 10 pounds.

When the metallic cartridge came into the picture something like 100 years ago, the first guns were heavy and bulky. Finally during the 1890's,

when smokeless powder was developed, there was a definite change to lighter guns. There was the 92 Marlin, the 94 Winchester and the 99 Savage, all light guns, barely tipping the scales to six pounds. These were sporting arms.

During that period the military developed its Krag in the .30-40 caliber and later the Springfield in the 1903, generally known today as the .30-06 in an improved version.

Although Winchester, Remington and Savage all developed sporting arms for this caliber, most of them were heavy guns, around eight pounds. It was then that some of the gun writers, most of whom by now have moved on to the Happy Hunting Ground, preached heavy guns for both the field and the range. They wanted tack drivers, and many sportsmen hunting in the high country felt under-gunned with anything but a 10-pound rifle.

There is a very apt old saying that if you ain't tried it, don't knock it. This writer has owned perhaps more than a hundred guns in the

last half-hundred years, and not one of them has been a heavy gun. That proves nothing in particular, except that it always is interesting to note around a hunting camp that most men who carry a heavy old Betsy around all day look longingly at my six-pounder in the flickering firelight.

Now light guns are really coming back. Winchester found it profitable to bring out its model 70, chambered for fast cartridges, in a light-weight gun. Savage always has retained its lightweight guns, and Remington has stayed below seven pounds in most of its sporting guns. Quite a few of the imports also are comparatively light.

The latest gun to hit the market that qualifies as a handy, light sporting piece is the new 600 bolt action carbine. Remington points to the "increasing demand for light-weight, easy to carry, easy to handle rifles which do not sacrifice the vital accuracy and power to drop a buck in heavy brush." For the last three years Remington has been making its 760 pump and 742 semi-auto in short, light guns. Last year it came out with the 700 series in a short, light piece, but without the distinguished looks of the 600.

This newest gun, with a 20-inch, ventilated rib barrel, weighs but five and one-half pounds. Currently it is chambered in two big game calibers, .308 Winchester and 35 Remington. It also is available in the .222 Remington. Perhaps some day it will be made in the 6mm and/or the .243. **

FOREIGN DEER

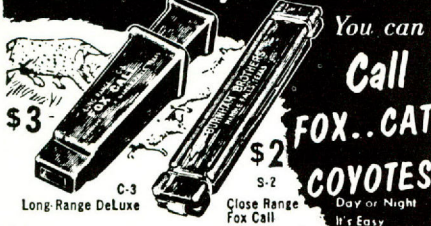
From the famous

Patio-Rickenbacker Ranch

we offer black buck antelope from India, Axis deer from Asia and Japanese sika deer. We guarantee live delivery of these deer anywhere in the State of Texas.

P. O. Box 21158 San Antonio, Texas

Season Open Now



SPECIAL OFFER: Both Fox Calls Plus \$2 Instruction Record (78 or 45 rpm) ONLY \$5
Surefire unbreakable BURNHAM calls featured in Aug. '56 TRUE "The CRITTERS Come When CALLED." Burnham calls lured up 121 Fox, 33 Raccoons, 165 Coyotes, 11 Bobcat, and hundreds of Hawks on their dry run. Thousands of these calls in use everywhere. Letters tell us of amazing results—"Very first time I used your call I called up 5 Coyotes"—P.T.C., New Mexico. BURNHAM calls must give you close shot at above mentioned game or your money back!

FREE Catalog. For new booklet THRILLS OF GAME CALLING, 16 pages of rare and exciting photos—Send 25c

ORDER TODAY!

POSTAGE PREPAID

BURNHAM BROTHERS

P. O. Box E-3, Marble Falls, Texas

HUNTING KNIFE

From Germany. Best steel and workmanship. Will last lifetime. 5" blade, leather sheath.

Satisfaction guaranteed

Special price of only \$3.95

Order today.

T. J. KIRKPATRICK

Box 590

Pleasanton, Texas 78064

DEER HORN MOUNTING KIT

COMPLETE DO-IT-YOURSELF KIT INCLUDES:

Leather, Wood Plaque;
Horn Color Restorer;
Hardening Materials;
Hardware, Instructions.



\$4.95 POSTPAID

NO COD'S PLEASE. SEND CHECK OR M.O. TO:

DEER HORN KITS

P. O. BOX 6802 • SAN ANTONIO, TEXAS

GAME AND ORNAMENTAL EGGS

Ringnecks 20c—Silver-Goldens 40c—Giant Mutants or Blacknecks 35c—Reeves-Japanese Greens 75c—Swinhoes-Nepals \$2.50—Quail, Partridge, Francolin, Peafowl—Minimum \$5.00

CAL-CROSS PHEASANT FARM

1976 California Crossing Rd.

Dallas 20, Texas Tel. CH 7-5140

Don't play pranks in the kitchen.

Getting the Drift ————— *From Page 25*

water plugs, it pays to give them a try in the deep holes.

There are some lakes not well suited to the bottom-crawl technique. Where there is a great amount of moss, the lure soon fouls. A weed guard helps on weeds and snags but it will not keep the line and hook free of moss.

If you have jigs that do not have weed guards, a piece of stiff wire and a soldering iron will soon enable you to prepare them for bottom fishing. In using pork rind for this type of fishing, I have found that white or natural color is often just as effective as black. I keep both white and black pork rind, as well

as a quantity of long black pork eels. I have some rind in a yellow color which I have tried with a yellow jig. It caught fish, too, and on one trip on a Texas lake I took my limit, 25 white bass, on this yellow combination fished along the bottom in an area of about five acres where a big school was congregated.

There is little waste to pork rind if you keep the lids tight on the jars. The "hawg" will keep the entire season in the solution, making it a low-cost bass bait.

I use plastic worms in both red and black. As far as I can tell, the color makes little difference. I have a preference for the worm with a "floating tail"; it seems to have more life-like action. The worm and jig combinations usually come packed

with an extra worm. It takes a lot of fishing before you have to discard the plastic product. They are so live looking that it isn't safe to play pranks with them, especially around the kitchen, as I learned to my sorrow recently.

The bottom-crawling method of bass fishing has become very popular in many lakes of the Southwest the last two years. Plastic worms on jigs and jigs with pork eels are equally popular.

One of my friends says that my method of fishing from a drifting boat is a lazy man's way of fishing. Maybe he is right—but you'd better not be lazy when a bass grabs your crawling lure, for you are going to have an "ole hoss" on your line. A real bragging-size bass! **

Wildlife and agriculture can co-exist.

Mutual Benefit ————— *From Page 15*

ervation program on their land provide many benefits to wildlife. Residues of such crops as grain sorghum, wheat, rice and oats, when properly managed, provide an abundance of food for game birds such as dove, quail, geese and ducks. Winter cover crops of peas, clovers, vetch and small grain provide green feed for game species such as deer, turkey and geese at a time when most native plants are dormant. Grassed waterways and strip crops provide nesting areas and travel lanes over the farm for game birds such as pheasant and quail. Many non-game birds and small animals also benefit from these areas.

As the pressure of our growing population makes increased demands on agriculture, the fortunes of wild creatures are more and more in the hands of farmers and ranchers. Land use and the nature of soil and water management on private land will have a large bearing on the future abundance of waterfowl, upland game, fur animals and many other kinds of wildlife.

Smith said that the SCS takes positive steps to help insure a lasting place in the American scene for wildlife. For example, the SCS does the following:

1. Supports State and Federal wildlife agencies in their programs

to create and improve wildlife habitats.

2. Provides land-capability information and technical assistance to landowners and operators to help them concentrate crop production on land best suited to cultivation, and to keep other land in appropriate vegetation or water areas which provide good wildlife habitat.

3. Informs farmers and ranchers of the values of the wildlife resource in its many forms and encourages them to provide for its various habitat needs.

4. Provides technical services to farmers and ranchers in improving wildlife habitat on agricultural land.

5. Assists with the creation of new bodies of water valuable to wildlife

by construction of ponds, dugouts and reservoirs on farms and ranches and in small watershed projects.

6. Employs specialists trained in wildlife biology to assist with work affecting wildlife in all soil conservation districts.

Experience has demonstrated that deer, waterfowl and other forms of wildlife can thrive and reproduce in an agricultural setting where a sound soil, water and plant conservation program is applied. **

CATCH FISH WITH TEXJIGS or return them for money back less postage. Superior for White Bass. Years of testing and thousands of fish caught prove **TEXJIGS** superior to other lures and even better than live bait. Trial order 3-for-\$1.00 with instructions.

Texas Jig Company, Dept. TG,
Box 111, McGregor, Texas

Deer - Turkey - Quail HUNTERS

Be a smart Hunter

Don't look for the game, let the game look for you.

Use a

FRENCH'S FEED-LURE FEEDER

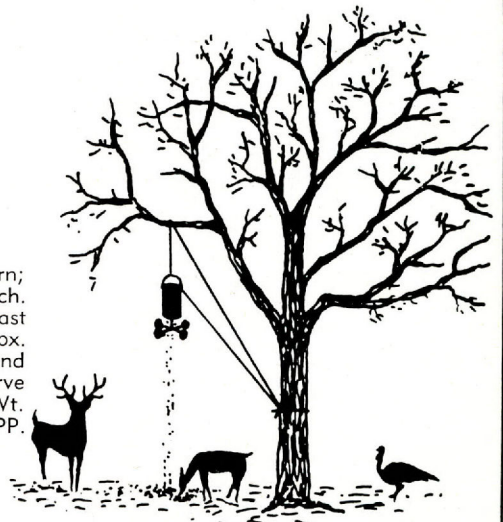
and be sure of your game. Use corn; maize, oats or a mixture of each. It's wind activated. 1 filling will last up to 5 weeks average. Holds approx. 32 lbs. of grain. Perfect for birds and all grain eating animals. Help preserve your game. Feed the year 'round. Wt. approx. 8 lbs. packed. Can go PP. \$8.95 plus 2% Tax. F.O.B.

FRENCH'S MFG.

817 W. Norwood

San Antonio, Texas 78212

DEALERS WANTED





**KILL
WEEDS**

**KEEP
FISH**

**in sport
LAKES or PONDS**

Aquathol aquatic weed killers offer these distinct advantages when used as directed:

- **NOT HARMFUL TO FISH,** fowl or aquatic animal life.
- **LEAVE WATER USABLE FOR** swimming, fishing and boating.
- **EFFECTIVE AND FAST ACTING** for complete lake or spot treatment.
- **AQUATHOL PLUS CONTROLS 25 WEED SPECIES** easy and non-hazardous to apply. for control of nuisance weeds, specify

AQUATHOL®



PENNSALT CHEMICALS CORPORATION

Department TG
P. O. Box 153, Bryan, Texas

Please send me your new brochure on aquatic weed control. I'm interested in treating:

Pond Lake Dock or Beach Area
Approximate size of area to be treated

Name.....

Address.....

City.....Zone.....State.....

What Others Are Doing

by JOAN PEARSALL

A LA MODE: The hunt and the country field are as much status symbols to the French as golf and the country club are to Americans. A poll of 50 leading French businessmen showed that they all go hunting, 80 per cent of them specifically "because it's good public relations." On the other hand, they consider a weekday afternoon of golf or tennis an "unthinkable indulgence."

DEADLY HEADLOCK: The most unusual find of three white-tail bucks with triple-locked horns was made in North Dakota. A possible theory of how the tangle could have taken place is that one 8-point and a 10-point buck were sparring around when another 8-pointer jumped over the back of one deer and locked the three sets of antlers together with his right antler; he immediately twisted around and broke his neck and, with his dead weight hanging down, kept the three of them locked until the other two died also.

STATE OF COOPERATION: Tennessee's Dept. of Agriculture and Game and Fish Commission recently signed America's first Pesticides Coordination Act, whereby the agencies will work together to develop proper controls and surveillance for proper pesticide use, and to avoid the dangers of misuse. Tennessee has many instances of such joint state enterprises.

EYEOPENER: A sportsman in Alberta, Canada, all of a sudden came upon a skunk, who sprayed him directly in the face. For years he had needed bifocal eye-glasses, but after getting hit smack in the eyes by that skunk he claimed

his eyesight without glasses for one day was as good as any hawk's. "If it were not for the smell, I'd be willing to try it again right before the hunting season," he said.

SIGN TO HUNT: In Nebraska written permission must be obtained to hunt on private land, if the landowner or operator has posted a sign at least 18 inches square with letters two inches high, reading, "Hunting By Written Permission Only," at each field entrance, at each property corner, and at intervals of not less than 40 rods. The note of permission must carry the date of issuance, length of time for which it is good, and the signature of the landowner. Also, in Nebraska, any bona fide farmer or rancher who owns or leases farm or ranch land and actually resides on that land, may hunt on his land together with members of his immediate family also resident there. The farmer is still required to abide by daily bag and season possession limits, but may take upland game without a hunting permit or upland game bird stamp.

NIX ON ELECTRONICS: Electronic or recorded devices to hunt wild turkeys are now illegal in Pennsylvania. A new law there prohibits the use of recorded calls or electronically amplified imitations of turkey calls or sounds for use in hunting the birds. There is no prohibition against use of the standard mouth or hand-operated callers for turkeys. Battery-operated record players and amplifiers may still be legally used in Pennsylvania for calling any kind of wildlife except turkeys and waterfowl. They were outlawed by federal authorities for waterfowl hunting several years ago.

Texas

Tackle Talk

by CURTIS CARPENTER



Measure ————— From Page 13

NOVICES are always searching for easier and more effective techniques to improve their fishing. I am constantly getting questions from fishermen on this subject. Every so often I get a letter from someone offering a new and better way to do something.

One such letter describes a better method for catching live grasshoppers for fishing. The writer also gives some advice on proper attire for the endeavor. He writes, "Read the article in *Texas Game and Fish* about the fishermen running into a rattler while chasing grasshoppers. This may not help escape the rattlers, but I find the best way to catch grasshoppers is with a dry minnow seine.

New Tricks

"Two men hold it just above the grass and run a short distance. The hoppers will fly into the net and hang up. Sounds silly, but just try it." I will, I assure you.

"Would advise you to wear at least a bathing suit," he continues. "I was with a party in the mountains of Oklahoma. Two of the boys ran out of bait, so waded out of the creek, stripped off their clothes, picked up the minnow seine and took off up an old abandoned road. As they rounded a bend, here came riding on horseback down the mountain road a couple of mountain girls. Evidently they had decided to take a short cut over the old abandoned road. The boys certainly looked a little bewildered all wrapped up in the seine with the grasshoppers."

Garcia's new Fishing Annual is off

the press. It's a good one. Dick Wolff, editor, tells me that this informative publication will be selling at the news stands this year. Pick up one.

It has one fine bass article in it. If you are one who refuses to fish the jungles, you had better read this bass piece.

Big bass fishermen, upon snagging their lures near the bottom, turn right around and cast back enthusiastically into the snag area. A snag means an object or several objects. It could be anything from brush, stumps or a sunken boat to rocks and ledges. In any case it's a good place to catch a big bass. **

CORRECTION

Errors occurred in the cutlines of three dog pictures in the February issue. Identification for the lower right picture on page 19 should have been General Lee (left), owner-handler Dr. J. E. Williams, Waco; Commander's Rocket Joe, owner-handler R. Ashley, Lampasas; Pokey G. Lou, owner Dr. A. Bostick, Waco, handler Dr. D. Guthrie.

The cutlines on the two pictures at the bottom of page 21 were reversed. The picture at left shows Cherokee Sam with his owner and handler, Frank Roach of Pampa. The right hand picture shows Rocket's Blizzard with handler Morris Bankhead of Amarillo.

Mighty Handy To Have!
THE HUNGRY SPORTSMAN'S
FISH & GAME COOKBOOK
 More Than 400 Recipes \$1.00 Postpaid
 Fish, Big Game, Small Game, Wildfowl,
 Turtles, Frogs, Mushrooms, Etc.
EDDIE MEIER
 Box 3030—Scottsdale, Ariz.

satisfaction of doing something for others and in helping to keep the records up to date and accurate. It'll be up to you to take your trophy to the official measurer. I happen to be one of them. Others in Texas are this Department's Regional I & E officers at San Angelo, Waco, Tyler, La Porte, and Rockport. Dr. Clarence Cottam, Welder Foundation, Box 1104, Sinton; Walter B. McClurkan, 210 McClurkan Bldg., Denton; Dr. F. W. Miller, Dallas Museum of Natural History, Fair Park, Dallas; Milroy Powell, Center Point; and L. F. Nowotny, 1330 N. Alamo, San Antonio.

Now that you have an idea about how to measure a set of antlers, drag out that old rack and practice up. Who knows, you may dig up a record that has been hidden for decades. **

Conservation Conference

Austin will host the Conference on the Conservation of Natural Resources in Texas, March 19-21. The sponsoring organizations are Texas Academy of Science, Texas Garden Clubs, Inc. and Texas Ornithological Society.

The main purposes of this conference will be to examine the problems of conservation facing Texans, to understand the roles of private and public groups in working for wiser use of our natural resources and to ascertain those conservation objectives for which the interested organizations and their members can agree to work. **

WANTED

Large Alligator Gar, 4½ foot or larger. Must be alive and in good livable condition.

Contact

SAN ANTONIO ZOO

3903 N. St. Mary's St., San Antonio, Texas

PRIVATE LAKE OWNERS

Improve your fishing—while you fish!

Control bullheads, turtles and other undesirables with a scientifically designed net trap

For details, write:

BILLY COOPER, BIOLOGIST
9822 Woodwind
Houston, Texas



Graders
Grills
Agitators
Dip Nets
Hauling
Tanks



Write for free catalogue
CRESCENT MFG. CO.
 P. O. Box 3303 — Ft. Worth, Texas

Bright-Eyed _____ *From Page 7*
 per pelt. One of the local buyers at that time, asked why these varmints were so valuable, chuckled, "Derned if I know. They must be dyeing them and selling them off as mink."

At the present time the entire fur market is lower and ringtails are bringing smaller prices. For up-to-date price quotations, contact any

Velvet-Horn _____ *From Page 6*
 small pigmented scar that persists for something less than a year. The presence of one or more of these pigmented scars called corpora albicantia indicates that the female has been pregnant during the breeding season prior to the one when the reproductive tract was collected. By determining what percentage of the females examined had probably been pregnant during the previous breeding season, another measure of reproductive performance was gained.

produce house or scrap metal buyer and ask him to check the price lists for you.

Actually, the ringtail is much more valuable as a rodent predator than as a furbearer. He is a first-rate expert at catching mice and rats.

If he is tamed while very young, the ringtail makes a fine pet. Most accounts of pets class him as gentle

and friendly and entertaining. His comical capers, due to an inquisitive nature, contribute to many family conversations and chuckles.

The handsome and evasive ring-tails, known from the days of the Aztecs to the age of astronauts, will probably continue to be noteworthy "after-five" prowlers of the animal world for many moons to come. **

LITERATURE CITED

Cheatum, E. L., 1949. The use of corpora lutea for determining ovulation incidence and variations in the fertility of white-tailed deer. CORNELL VET., 34(3).

Golley, F. B., 1957. An appraisal of ovarian analyses in determining reproductive performance of black-tailed deer. JOURN. WILDL. MGT., 21(1):62-65.

Hahn, H. C., Jr., 1949. A method of censusing deer and its application in the Edwards Plateau of Texas. Tex. Game, Fish & Oyster Comm., multilithed, 24 pp.

Teer, J. G., 1957. Factors influencing sex cycle and reproductive rates of white-tailed deer. Tex. Game and Fish Comm. Job Completion Report 10, Federal Aid Project W-62-R-5, multilithed, 24 pp.

_____, 1958. Factors influencing sex cycle and reproductive rates of white-tailed deer. Tex. Game and Fish Comm. Job Completion Report 10, Federal Aid Project W-62-R-6, multilithed, 26 pp.

Thomas, J. W., 1959. Factors influencing sex cycle and reproductive rates of white-tailed deer. Tex. Game and Fish Comm. Job Completion Report 10, Federal Aid Project W-62-R-7, multilithed, 41 pp.

_____, 1960. Factors influencing sex cycle and reproductive rates of white-tailed deer. Tex. Game and Fish Comm. Job Completion Report 10, Federal Aid Project W-62-R-8, multilithed, 39 pp.

_____, 1961. Factors influencing sex cycle and reproductive rates of white-tailed deer. Tex. Game and Fish Comm. Job Completion Report 10, Federal Aid Project W-62-R-9, multilithed, 40 pp.

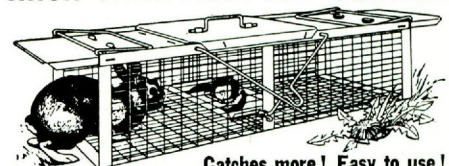
Thomas, J. W., R. M. Robinson and R. G. Marburger, 1964. Aggressive and escape behavior of white-tailed deer with added notes on altered behavior in male suffering from hypogonadism. Unpublished manuscript, typewritten, 25 pp.

Weston, Frederick H., 1954. Hunting the white-tailed deer in Texas. Western Outdoor Publications. San Antonio, Texas, pp. 114-118.

Wislocki, George B., 1943. Studies of growth of deer antlers in *Essays in Biology*. University of Calif. Press, Berkeley and Los Angeles, pp. 631-647.

Wislocki, George B., Joseph C. Aub and Charles M. Waldo, 1947. The effects of gonadectomy and the administration of testosterone propionate on the growth of antlers in male and female deer. ENDOCRINOLOGY, 40(3): 202-224.

CATCH THEM ALIVE AND UNHURT!



Catches more! Easy to use!
 Amazing HAVAHART trap captures raiding rats, rabbits, squirrels, skunks, pigeons, sparrows, etc. Takes mink, coons without injury. Straying pets, poultry released unhurt. Easy to use—open ends give animal confidence. No jaws or springs to break. Galvanized. Sizes for all needs. FREE illustrated practical guide with trapping secrets. HAVAHART, 149-R Water Street, Ossining, N.Y. Please send me FREE new 48-page guide and price list. Name _____ Address _____

Game Bird Eggs

BOBWHITE QUAIL EGGS
 12 Cents Each

CHINESE RING NECK PHEASANT EGGS
 20 Cents Each

Minimum Order \$5.00
 Postage Prepaid
 Please Mail Check With Order

Keechi

QUAIL & PHEASANT FARM
 Telephone Number DA 2-4770
 Route #2
 BUFFALO, TEXAS

This technique is subject to various errors but is considered basically valid (Golly, 1957).

The comparison of the percentages of adult does in the study area that had probably been pregnant during the preceding breeding season is shown in Table I. Statistical tests of these comparisons (*t*-Test; *t*=.05) indicated no significant difference in this measure of reproductive performance for any of the years considered.

The two comparisons of reproductive performance available from reproductive tract collections indicated that high numbers of velvet-horn bucks did not adversely affect herd reproductive performance. It was also indicated that whatever the causative agent of the velvet-horn syndrome it did not affect females.

In our study we have gathered much information on velvet-horns, but we still don't know what causes this malady. The search for the cause will make up the next phases of the project.

Aristotle once said that the person who can define his problem has the problem half solved.

We have our problem well defined and we have some good leads on the causes of the phenomenon. **

HERE IT IS
TEXAS GAME AND FISH Magazine
 John H. Reagan State Bldg., Austin, Texas

\$5.00 for 5 years
 \$3.00 for 2 years
 \$2.00 for 1 year

Name _____
 Street or Box _____
 City _____ Zone _____ State _____

Sent in by _____ Gift Card signed _____
 New Renewal
 Allow Six Weeks for Delivery

Posthumous Medal of Merit Given to Warden



Texans are contributing to a fund honoring the memory of Game Warden John David Murphree, slain near Mauriceville late in the evening of December 8 while rounding up duck hunting law violators. In the above photo, Mrs. Murphree is shown accepting a posthumous award—the Medal of Merit for Valor, the highest recognition for a law officer killed in line of duty, as presented by the National Police Officers' Association. Proceeds of the fund, sponsored by the Texas Outdoor Writers Association, will be held in trust for the three Murphree children, all now in school. They are Joel Lynn, 12; Linda Kay, 11; and Wesley Edward, 5. Under state law, the family receives the equivalent of one year's salary paid Warden Murphree. . . . Individual donations range from \$1 to \$1000. Late reports state the total now approximates \$10,000. Contributions may either be sent to John Thompson, Outdoor Editor of the Beaumont Journal, and president of the Texas Outdoor Writers Association, or to Mrs. Murphree, Route 1, Box 150, Center. The family has moved in with her parents, Mr. and Mrs. W. S. Oswalt. Her father is a carpenter by trade.

Address Change

Please fill out and return this form to TEXAS GAME AND FISH, Reagan Building, Austin, Tex., 78701, so that you will not miss a copy of the magazine. Sent by second-class mail, the magazine cannot be forwarded by the post office or remailed from this office. Allow six weeks for processing.

Name _____

Old Address _____

City _____, State _____

Please copy here the number which appears on the righthand side of your mailing label _____

New Address _____

City _____, State _____

Prize Antelope



Two Austin men, Egon and Norman Tausch, bagged their game in the first two hours of the Reagan County one-week antelope hunt. The trophies were 13 $\frac{3}{8}$ and 14 $\frac{3}{8}$ inches each.

"FISHERMEN"

LET US CUSTOMIZE YOUR
AMBASSADUER REEL

Will Install PRECISION Ball Bearings
- - - Clean, Lubricate & Return Post
Paid, For Only \$7.50 Cash with Order.

TUCKER'S GUN SHOP
120 N. Seagoville Rd. Dallas 17, Texas
AT 6-1636

BOBWHITE QUAIL



Booking Orders Now
Mature Quail90c
6-8 Weeks Old50c
MINIMUM ORDERS—100

OVEN DRESSED
QUAIL

\$16.00 Per Doz.
Plus Shipping Charges

Minimum Order—
Two Dozen

Send Check or
Money Order to:

J. C. COX
1412 Norman St., Ft. Worth 6, Texas

Orders Taken by Telephone After 6 P. M.
Telephone: MARKET 6-7843

RECREATIONAL AND SCENIC PARKS	LOCATION Located Near The Town of	OVERNIGHT FACILITIES																
		Camping Permitted	Shelters	Group Camp	Telers Permitted	Restrooms or Showers	Cabins	Picnicking	Groceries	Dining Room	Fishing	Swimming	Baths	Golf	Nature Study	Saddle Horses	Museum	
ABILENE	BUFFALO GAP	X	X	X	X	X	X	X										
ATLANTA	QUEEN CITY	X	X	X	X	X	X	X		X	X							
BASTROP	BASTROP	X	X	X	X	X	X	X						X	X	X		
BENTSEN - RIO GRANDE VALLEY	MISSION	X	X	X	X	X	X	X		X								
BIG SPRING	BIG SPRING	X	X	X	X	X	X	X										
BLANCO	BLANCO	X	X	X	X	X	X	X										
BONHAM	BONHAM	X	X	X	X	X	X	X		X	X							
BRAZOS ISLAND (Open Gulf Beach)	BROWNSVILLE	X	X	X	X	X	X	X										
BUESCHER	SMITHVILLE	X	X	X	X	X	X	X										
CADDO LAKE	KARNACK	X	X	X	X	X	X	X										
CLEBURNE	CLEBURNE	X	X	X	X	X	X	X		X	X							
DAINGERFIELD	DAINGERFIELD	X	X	X	X	X	X	X		X	X							
DAVIS MOUNTAINS	FT. DAVIS	X	X	X	X	X	X	X		X								
EISENHOWER (Modern Boat Marina)	DENISON	X	X	X	X	X	X	X		X	X							
FALCON	FALCON	X	X	X	X	X	X	X		X	X							
FT. PARKER	MEXIA	X	X	X	X	X	X	X		X	X							
GARNER	CONCAN	X	X	X	X	X	X	X		X	X							
GOOSE ISLAND	ROCKPORT	X	X	X	X	X	X	X		X	X							
HUNTSVILLE	HUNTSVILLE	X	X	X	X	X	X	X		X	X							
INKS LAKE	BURNET	X	X	X	X	X	X	X		X	X							
KERRVILLE	KERRVILLE	X	X	X	X	X	X	X		X	X							
LAKE BROWNWOOD	BROWNWOOD	X	X	X	X	X	X	X		X	X							
LAKE CORPUS CHRISTI	MATHIS	X	X	X	X	X	X	X		X	X							
LAKE WHITNEY	WHITNEY	X	X	X	X	X	X	X		X	X							
LOCKHART	LOCKHART	X	X	X	X	X	X	X										
LONGHORN CAVERN (Daily Cavern Tours)	BURNET	X	X	X	X	X	X	X										
*MACKENZIE	LUBBOCK	X	X	X	X	X	X	X										
MERIDIAN	MERIDIAN	X	X	X	X	X	X	X		X	X							
MONAHANS SANDHILLS	MONAHANS	X	X	X	X	X	X	X										
MOTHER NEFF	MOODY	X	X	X	X	X	X	X										
PALMETTO	LULING	X	X	X	X	X	X	X										
PALO DURO CANYON	CANYON	X	X	X	X	X	X	X										
POSSUM KINGDOM	CADDO	X	X	X	X	X	X	X		X	X							
TYLER	TYLER	X	X	X	X	X	X	X		X								
VELASCO (Open Gulf Beach)	FREERPORT	X	X	X	X	X	X	X		X	X							
HISTORICAL PARKS																		
FT. GRIFFIN (Texas Longhorn Herd)	ALBANY	X	X	X	X	X	X	X		X					X	X		
GOLIAD	GOLIAD	X	X	X	X	X	X	X		X					X		X	
GOV. HOGG SHRINE	QUITMAN	X	X	X	X	X	X	X									X	
INDIANOLA	PORT LAVACA	X	X	X	X	X	X	X		X	X				X	X		
JIM HOGG	RUSK	X	X	X	X	X	X	X										
MISSION TEJAS	WECHES	X	X	X	X	X	X	X							X	X		
MONUMENT HILL	LA GRANGE	X	X	X	X	X	X	X										
*SAN JACINTO	DEER PARK	X	X	X	X	X	X	X									X	
STEPHEN F. AUSTIN	SAN FELIPE	X	X	X	X	X	X	X							X	X	X	
VARNER-HOGG PLANTATION	WEST COLUMBIA	X	X	X	X	X	X	X									X	
WASHINGTON	WASHINGTON	X	X	X	X	X	X	X										
HISTORIC SITES																		
ACTON	GRANBURY																	
*ALAMO	SAN ANTONIO																	X
EISENHOWER BIRTHPLACE	DENISON																	X
*FANNIN	FANNIN																	
GEN. ZARAGOZA BIRTHPLACE	GOLIAD																	
OLD FT. PARKER (Fort Restoration)	GROESBECK																	
PORT ISABEL LIGHTHOUSE	PORT ISABEL																	
SAN JOSE MISSION (Historical Drama - July-Aug.)	SAN ANTONIO																	X
SAN SABA MISSION	MENARD																	

*Facilities not operated by Texas State Parks Board

Letters



to the Editor

Trotline Reward



Editor:

This picture is of my wife, Millie, and the fish she took off her trotline in Bee Creek, 6:30 one morning while I was sleeping. She baits and runs her own trotlines all the time. She was using line perch. It weighed 30 lbs. We really do enjoy *Texas Game and Fish*. We kinda fight over who gets to read it first. Keep up the good work.

H. E. (Cope) Maxwell
Austin

(We don't like to cause domestic differences, but are glad you consider the magazine worth fighting over. Judging from the success your wife has as a fisherman, before you are even awake, it is easy to guess who gets the magazine first.—Editor)

Indigo History

Editor:

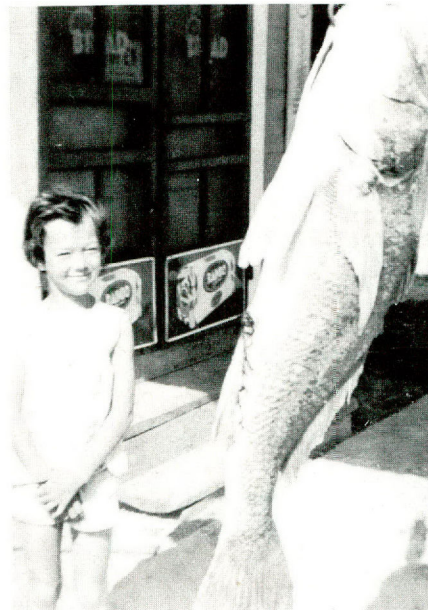
I sure did enjoy your "Wildlife in the Lens" article and especially the photo of the indigo snake. When I lived in Corpus Christi, my wife and I spent a lot of time fishing on the Nueces River, just above the Swinney Switch and Dinero Bridge. We saw several of the big indigo snakes. They seem to move in the water as well as on land. We would like to know some of the history of these snakes. Were they imported to kill rattlesnakes by the King Ranch? How big do they grow, and what are their habits? We would appreciate any information you can give us.

Don Birchum
San Antonio

(Since the range of this snake includes

the states of Tamaulipas, Nuevo Leon, Coahuila, San Luis Potosi, Vera Cruz, as well as the southern portion of Texas, it is very unlikely that the species was introduced by the King Ranch for the control of rattlesnakes. However, they may have imported some to increase the numbers present. These snakes commonly reach a length of five to six feet and, rarely, as much as seven feet. They usually are very docile in captivity and are easily kept on a diet of small animals such as mice, rats, birds, frogs or snakes. A couple of specimens that I had in Rockport ate cottonmouth water moccasins and small rattlesnakes when caged together. The scientific name of the snake is *Drymarchon corais*. —Howard T. Lee, Acting Director of Programs for Field Operations)

Big Red



Editor:

This bull red was caught off Matagorda east bay island. The fish weighed 65 lbs., caught by V. W. Schnell, Paul Meier and Erwin Meyer.

V. W. Schnell
Damon

(We are sorry not to be able also to identify the young lady sharing the pictorial if not the piscatorial honors.—Editor)

Quarter Century Ago

Editor:

I ran across a picture taken December, 1939. The geese would get used to the huge straw stacks and most of the time we got our limit using them as a hide. Those days, the rice was combined, laid in bundles to dry and then brought to the threshing machine.

I thought you might like to use this picture, showing present hunters a change

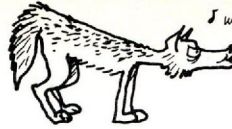
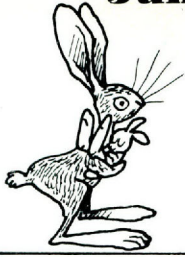


in 25 years. Pictured are Lawrence Kocurek, left, and I, both formerly of La-Grange, now of Houston. I think we had the limit of geese for three men.

Aug. Bordovsky
Houston

(It's interesting to look back once in a while and see how things used to be. This picture shows that geese and rice seem to go together even before they get to the dinner table!—Editor)

Junior Sportsmen



Be a Quiz Kid

by JOAN PEARSALL

HERE are some teasers, to test how well acquainted you are with wildlife. Think a little about these sentences, and see how many you check correctly.

- Most of the nation's wildlife lives in national forests.
True False
- Jackrabbits are blind and naked when they are born.
True False
- All fish have scales.
True False

- A skunk is a bad-tempered, surly animal.
True False
- Big-horn sheep have fine-quality wool.
True False
- Snakes and fish have no ears.
True False
- Armadillos always have four young in a litter.
True False

- Wolves have many different mates.
True False
- You can tell the age of a deer by the number of points on the antlers.
True False
- Beavers can work under water with their teeth, without getting water in their mouths.
True False
- Snakes cause more deaths than insects.
True False
- A fish propels itself with its fins.
True False

Possum Mom

Editor:

I got this snapshot of a possum with babies on our ranch in Mason County. I chased her all over the pasture before I got this picture. On the same trip I found five baby skunks and a fawn. I like the outdoors and love to hunt and fish.

Tom Wissemann
Dallas

(It is fun to take pictures of wildlife. Be careful, of course, not to upset or handle the animals, for the animal's benefit and to avoid exposure to rabies. Many persons carry fawns home. This is against the law and it is dangerous since the fawns quickly become capable of injuring human beings. You did a fine job with your photography, Tom. Your full address was not on your letter, so please write again and we will return your snapshots—Editor)



Explosive Mixture

Editor:

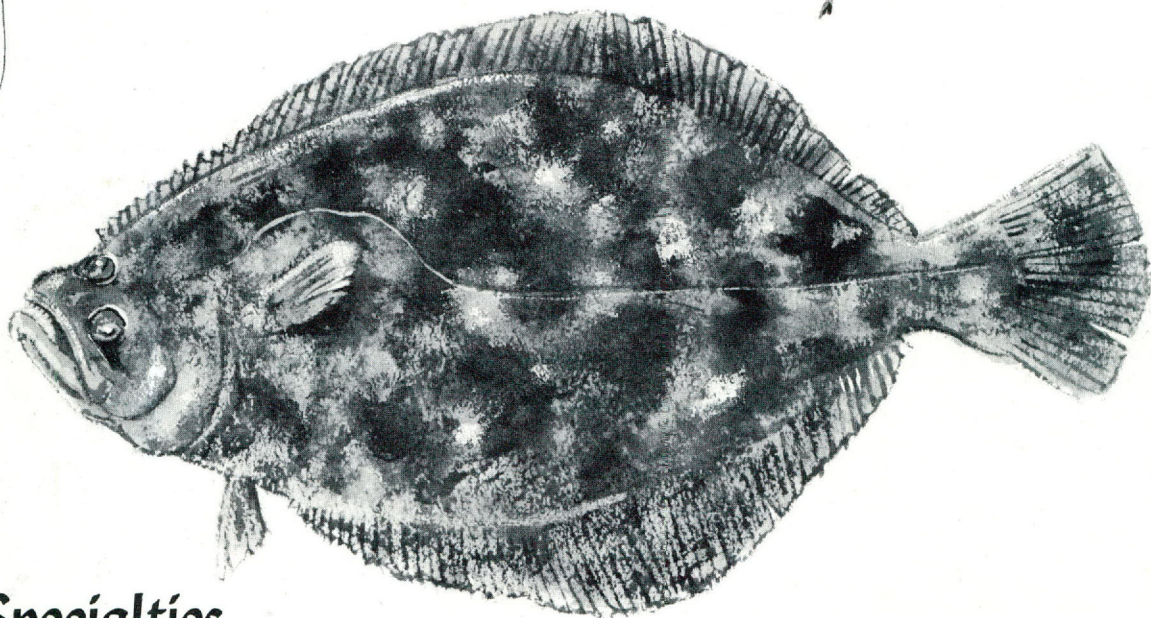
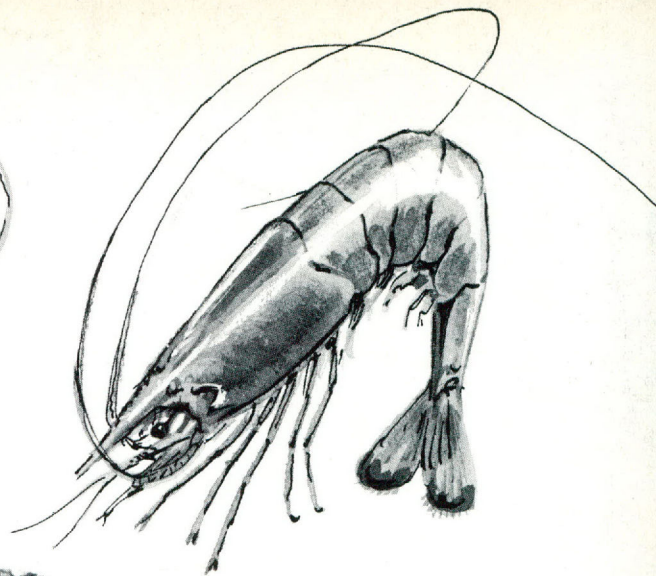
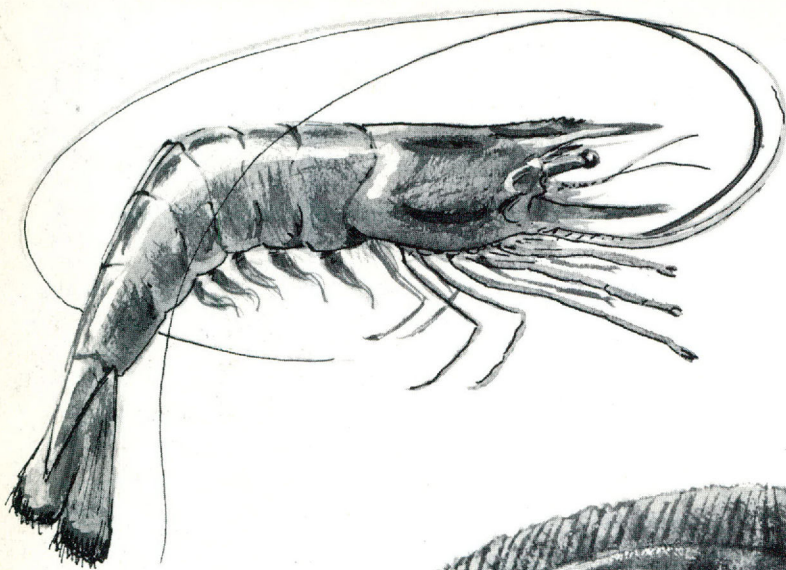
Sir, why wouldn't you mix gunpower and alcohol? My friends ask me why you would. Would you write me so I may tell my friends why not.

Robert Louis Weakley
Longview

(Thank you for writing us on this subject, Robert. That phrase in the Ten Commandments of Gun Safety means that persons who are hunting or preparing for a hunt should not drink alcohol. Alcohol slows down reflex actions and makes the person less alert. The hunter or any person carrying a gun should be very alert so that he will make quick and sound judgments and be able to prevent accidents.—Editor)

ANSWERS:

- True. It has been estimated that 70% of the nation's wildlife lives in national forests.
- False. Jackrabbits are hares and are born well-furred, with their eyes open. Rabbits are blind and naked at birth.
- False. Some fish, catfish for instance, have no scales at all. And all fish are born or hatched without scales. The ones that have scales as adults sprout them later from under their skin.
- False. Skunks are even-tempered and seldom look for a fight. They're well equipped if trouble does come! And they don't run from a scrap, no matter how large the opponent.
- False. The bighorn sheep does not have wool as domestic sheep do, but instead has a hairy coat which resembles that of a deer.
- False. They have ears with no outside openings. They hear mostly through vibration in the ground or water.
- True. And the entire litter is always of the same sex—either four females or four males.
- False. Wolves have the same mate for life. The male is very faithful and protective to the female and offspring.
- False. The teeth indicate the age of a deer. Several factors can determine the number of points, chiefly the animal's diet.
- True. Their lips are designed to close behind the long, front incisor teeth.
- False. Statistics show that more people die from insect stings than from the bites of poisonous snakes. Bees take about as many lives as rattlesnakes.
- False. Alternate body strokes move a fish through water. In most species, fins and tail are not necessary to propulsion, but fins do make swimming easier and are important for steering and stabilizing.



Gulf Specialties

PATIO SHRIMP PLATE

3 cans (4½ ounces each) de-veined large shrimp

Lettuce
1 large cucumber, sliced

Drain shrimp. Cover shrimp with ice water; let stand 5 minutes. Drain. Arrange shrimp on crisp lettuce with cucumber slices. Serve with Patio Shrimp sauce. Serves 6.

Sauce

1 cup sour cream
1 tb. horseradish
½ tsp. salt
1 tb. grated onion
½ tsp. paprika

Combine all ingredients and blend well. Serves 6.

FILLET OF FLOUNDER WITH MUSHROOMS:

½ lb. fresh mushrooms, or
14 oz. can chopped mushrooms, drained

1 tsp. garlic salt	¼ tsp. dried thyme
1 tsp. chopped chives	¼ tsp. dried marjoram
1 tsp. chopped parsley	1½ or 2 lbs. flounder fillets
½ cup dry white wine	1 tsp. salt, ¼ tsp. pepper
2 tps. butter or oleo	

Heat oven to 350 degrees; combine mushrooms, garlic salt, chives, parsley, thyme, and marjoram. Cover and let stand till needed. Season fish with salt and pepper, roll up each fillet and fasten with toothpick. Place rolled fillets in shallow baking pan, top with seasoned mushrooms, pour wine into pan and top each fillet with ½ tsp. butter. Cover pan tightly with foil and bake 20 minutes. Remove foil and cook 10 minutes longer, or till fish is done.