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FOR THAT BIG ONE
THAT DIDN'T GET AWAY

FLORIDA WILDLIFE'S FISHING CITATION

is available without charge, to any and all subscribers to Florida Wildlife Magazine, and their immediate families, who catch any of the fresh-water game fish of the prescribed species and size requirements. The catch, showing recorded date of the catch, will be mailed to the applicant upon receipt of the following application form that has been properly filled out and signed.

ELIGIBILITY REQUIREMENTS

SPECIES

LARGEMOUTH BASS

4 pounds or larger

CHAIN PICKEREL

3 pounds or larger

BLUEGILL (BREAM)

1 1/2 pounds or larger

SHELLCRACKER

2 pounds or larger

BLACK CRAPPIE

2 pounds or larger

RED BREAST

1 pound or larger

All fish must be taken from the fresh waters of the state of Florida, as defined by the Game and Fresh Water Fish Commission. Fish must be caught on conventional fly, spinning, or bait-casting tackle, with artificial or live bait, in the presence of at least one witness.

The catch must be weighed and recorded at a fishing camp or tackle store within the state by the owner, manager, or an authorized agent of the respective establishment.

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Edmund McLaurin, Firearms Editor

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FLORIDA GAME AND FRESH WATER FISH COMMISSION

Tallahassee, Florida

Published monthly by the

Dedicated to the Conservation, Restoration, and Protection of Our Game and Fish

FLORIDA WILDLIFE

VOLUME 46 NO. 2

JULY, 1960

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ROSE - TALLAHASSEE

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THE SHELLCRACKER

Dear Sir:

On page 5 of the May issue there is a picture of a shellcracker, it is actually a small fish which is labeled as shellcracker. However, true shellcracker has all the markings and appearance is a speckled perch.

I am wondering if perhaps the gentleman that furnished the picture may erroneously labeled the perch.

Mrs. Gerald Cavendish
Tampa, Fla.

The Editor:

You goofed this time Mr. Editor. That fish the picker is trying to pull up in the river on page 5, the May issue, is a speckled perch, not a shellcracker.

D. D. Livingston
Atlanta, Ga.

Gentlemen:

That photo of the pickered with a small fish jammed in its mouth has this family cousin too. We have been getting these small fish for many years now, and thought they were black crappie, more commonly known as speckled perch. Your little story says it is a shellcracker. Please notify as to the true identification.

Dick Bowman
Ocala, Fla.

SHELLCRACKER

THE SHELLCRACKER

You learn something new every day: striped bass in Florida. It is still hard to believe, even after studying the May cover and reading Mr. Loftin's fine article. You learn something new every day, as he said that the Florida may have striped bass but I will claim they are 'tops' for catching those fish. I have been fishing for striped bass for many years, and have never caught one out of the cold weather strippers up here.

Robert J. Baker
Provincetown, R.I.

Since the conditions in Florida are altogether different, the fight and food value might not be the same, but those who catch 'em, and eat 'em claim they are 'tops' on both, count. It is said that the Florida striper is worth 20-60 cents a pound on the wholesale market. One Rugby says that striped bass prefers a strip of liver or testicle. I have been fishing for striped bass in Florida, and have never caught one out of the cold weather strippers up here.

Robert J. Baker
Provincetown, R.I.

SPECKLED PERCH

DEAR SIR:

Please don't let this request mislead you. I am not a glory seeker, or do I fish for a lot of trophies and citations, but that weight limit you have set for a bass fishing citation seems to be a bit 'stingy' to me. My fishing is strictly for fun, and I have caught my share of bass over the years, but have yet to catch one over eight pounds.

On your letters page in the May issue there are five big, curious, and wonderful questions, but how many citations you give out for bass weighing eight pounds and more.

Benjamin Adams
Tampa, Fla.

DEAR SIR:

I hope this request is in order. I am writing to express my interest in the wild-caught animal and its future. The animal knows only attack or escape. Unfortunately, the animal can do neither.

When first caught, many species of wild animals fight to escape. They go round and round the cage, looking for an outlet. Or they fight the trap with claw and Fang.

Some species of wild animals merely sit down and appear to be waiting for something better to happen. Others turn sullen or attempt to hide in a corner.

If a human comes too close, the animal usually attempts self-defense, which, for a wild animal, is either escape or attack. Since the animal is in the process of discovering that there is no escape, his alternative is to attack.

Being newly caught from the wild, the animal may chew its own mouth and head, and other small openings.

If possible, the "holding" cage that is, the temporary cage—should be completely faced on the interior with smooth, solid wood, without the bars used for one or more of the walls, top, or top should be solidly draped with tightly-fastened heavy cloth or fabric.

In the case of birds, or deer and other hooved animals, the cloth should be inside the wire or bars. This protects the bird from flying against bare wire, and prevents the hooved animal from tangling a hoof or leg in the wire or the bars.

Florida WILDLIFE

JULY, 1960

THE COVER—Florida's most familiar characters, in both physical expressions and actions. Rare is the time that there is not a difference, without having at least one pet frog. In the cover photo Vance Hughes is fascinated by his pet tree frog. See page 12.

Cover Photo By Wallace Hughes

FLORIDA WILDLIFE

CAGED ANIMALS

By BOB DUNNE

This is the fourth of a series of articles concerning the proper care of wild animals in captivity. Since there appears to be an increasing desire to keep animals in cages, it is important to recognize the stress and strains that such captivity places upon the animals involved.

THE NEW WILD ANIMAL presents an immediate problem to his captor and keeper. This applies whether the animal has been freshly "wild-caught," or obtained from a previous captor, exhibitor or dealer. It must be remembered that the wild-caught animal is terror-stricken.

He is, normally, fighting for his very life, since he cannot recognize that the cage is meant only to keep him safe.

Many animals of the wild species have an instinctive fear of man-kind, and all of man-kind's peculiar odors and sounds. Seeing, smelling or hearing man—his captor, the wild animal knows only attack or escape.

Unfortunately, the animal can do neither.

When first caught, many species of wild animals fight to escape. They go round and round the cage, looking for an outlet. Or they fight the trap with claw and Fang.

Some species of wild animals merely sit down and appear to be waiting for something better to happen. Others turn sullen or attempt to hide in a corner.

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In the case of birds, or deer and other hooved animals, the cloth should be inside the wire or bars. This protects the bird from flying against bare wire, and prevents the hooved animal from tangling a hoof or leg in the wire or the bars.

For most other animals, the cloth should be placed on the outside of the wire or bars so as to darken the cage. The cloth or fabric so used should be thick and light-proof, such as heavy gunny-sacking, army-type blankets, tar- paulin or similar material.

It is best that the animal not see through the walls or top, or as not seeing people keeps the animal in a calmer condition. It also quiets the animal, and reduces escape-attempts.

The bottom of the cage must be solid, without holes, cracks, splinters or projections.

The wildness cuts seldom fight their cages. Panthers, lions, bobcats, and similar cats, seem to almost immediately recognize that they are trapped beyond escape. They will, however, attempt to eat their way through a wall to attack a nearby human.

Animals such as bears, otters, beavers, and raccoons will spend a great deal of their time trying to tear the inside of the cage apart. Such animals are best held under steel, or under wire-mesh-faced wooden interior walls and roofs.
By CHARLES WATERMAN

When conservation turned pro it actually took some of the incentive out of sportmen’s organizations.

Conservation began to lose its amateur status when conservation agencies became more and more scientific and began to acquire new dignity in the eyes of the public. State conservation staffs grew both in size and quality and sportmen’s clubs were called upon less and less when actual field work was needed.

It was a mixed blessing because an idle sportmen’s club goes into hibernation or stops entirely. With a project in the works a club will thrive. With the objective achieved or abandoned, interest will wane within a one-month period.

I know of one club in the Middle West that waxes and wanes with the coyote population. Why? Because when the coyotes get too thick, the club members organize a coyote drive to thin ’em out. The membership goes up into the hundreds and, then, with the coyotes under control, it’s hard to get half a dozen to attend meetings.

Another club, interested primarily in boating, built a big floating dock on an otherwise barren western reservoir. They built their own gasoline storage plant. They built a boating ramp. Their cruises are something to behold. But they don’t come to meetings.

“They’re willing to work but they won’t talk,” said the president. Those are extreme cases but the principle is there in any club.

A lot of thought must be employed in seeking club projects. You must not wander too far afield.

The most common mistake is in the direction of social activity. When club officers find that beer and barbecue brings in big crowds, they are apt to add things up to the conclusion that beer and barbecue are what the club wants and they “go social.”

No matter how fine a social club they achieve, they may lose sight of their main objective—which is conservation.

A common remark around state or national headquarters of any conservation organization is, “They went social!”

That is their complete description of a yacht club without yachts, a gun club without guns or a poker club without cards.

No one ever dreams of a yacht club without yachts, a gun club without guns or a poker club without cards.

Some of the birds and animals that as much as they’d like to so any project involving outdoor activity will have added inducement for them.

In most parts of the country, the war against predators has been won. Some of the birds and animals that once came under the classification of pests now are carefully protected to maintain nature’s balance. Nevertheless, there may be emergencies where the scale YES does become unbalanced. When a member keeps telling his friends that his club is opposed to or in favor of this or that legislation, he’s not apt to forget he’s a member. Influencing non-members in the direction of sound conservation is a project it itself.

In lining up projects for a sportmen’s club, remember that the group is made up of outdoorsmen. Most of them aren’t able to get outside as much as they’d like to so any project involving outdoor activity will have added inducement for them.

State conservation club leaders say, “When they build a clubhouse they quit work.” That’s going too far but the danger is there.

It is up to club officers to keep the projects coming. An active legislative committee is especially important because it can give the members, something to talk about outside club meetings.

The northernmost chapter was recently formed from the remnants of pests are now carefully protected to maintain nature’s balance. Nevertheless, there may be emergencies where the scale YES does become unbalanced. When a member keeps telling his friends that his club is opposed to or in favor of this or that legislation, he’s not apt to forget he’s a member. Influencing non-members in the direction of sound conservation is a project it itself.

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R\textsc{ecently}, I learned that a trapshooting friend had just experienced the destruction of his world-famous 200,000-shot gun in a tournament competition. In essence, this milestone in a shotgunning’s life is tantamount to observing a Diam­ond Wedding anniversary by the average man, for it represents a lot of life’s mileage on the trigger finger.

Also significant was his rather sheepish admission that in reaching the trapshooting milestone his shell cost alone approximated $28,000. Like a long, happy marriage, shoot­ing can also be expensive, whether it is trapshooting, Skeet, upland game, small game, duck hunting or just plain plinking at informal targets.

In round figures, the initial cost of a gun is only a fraction of its true cost. I should know!

To cite only one example in a life-time of pleasurable shooting, I once paid $92 for a 22 caliber slide-action rifle, and then fired some 82,000 rounds of 22 long rifle ammunition through its barrel in informal target shooting before I wore it out.

Overlooking all the fun I had shooting up that much ammunition in one gun, there is no denying that the rifle proved a costly mouth to feed, I won’t even attempt to figure up the cash I shelled across hardware store counters for the total of 82,000 rounds of 22 caliber ammunition — for fear my wife will lower the boom on me, regardless.

The cost of our hunting fun adds up, too. I don’t yet have the 1959 figures, but in 1956 some sixteen million Americans spent more than a billion dollars to participate in legal hunting. Florida sportmen contributed a fair share to the total.

By EDMUND MCLAURIN

Back in 1947, the statisticians figured it cost the average hunter $100 to kill a deer and $200 to bag a moose. To get a fairly accurate idea of present day cost you can up those basic figures by 50 or even 100%, depending on locality hunted.

(Looking over my deer hunting expenses of the past five seasons, I can definitely say that venison doesn’t come cheap — by the deer or by prorated pounds!) Those in the know point out that the sportsman’s round dollar is sliced into many pie-like segments of hunting expense. Half goes to supplying him with gun, ammunition, transportation, food and lodging.

Also, from personal experience, I can vouch for the fact that the above list of the average deer hunter’s equipment is far from being complete.

To it, I could personally add such items as insulated vest, parks, snake bite kit, first aid kit, canoe, axe, ice chest, pedometer and numerous small articles that come readily to mind. All cost money and all add up in dollars and cents. Likewise, certain of the listed essential items cost me more than the cited average figure. My binoculars, for example, list for $125, my case $40.

The upland hunter needs a little better than the big-game hunter in operating expenses, but usually he has to work harder to get his game.

Besides his gun, which will cost from $60 to $125, the deer hunter will want, really need or desire to replace with better, most of the following items:

- Scope sight and mounts ... $60.00
- Binoculars ... 60.00
- Compass ... 3.00
- Lantern ... 7.00
- Gun cleaning kit ... 3.00
- Hunting knife ... 6.00
- Cartridge pouch or belt ... 5.00
- Hunting coat, pants and hat ... 52.00
- Hunting shirts and gloves ... 12.50
- Boots and socks ... 25.00
- Sleeping bag ... 25.00
- Camera and film ... 30.00
- Ammunition ... 5.00

The total of $337.50 is a very conservative figure; actually, most of us would think it carries a fancy price tag, a little better than the big-game hunter. If anything, he generally has to work harder to bag his game, yet finds it carries a fancy price tag, too.

For his specialized hunting, he will usually need specific items of equipment in addition to certain basic needs common to all classes of shooters. Duck hunting, for example, requires habitual use of decoys and calls, and warm, waterproof clothing, the cost of which adds up. If an average Joe, the duck hunter, I have invested in the allotment — by far the total of some $65.00 for duck loads, the poor shot up to $70. For the average hunter, it takes 30¢ to 40¢ worth of ammunition to put one duck in the game bag! All these costs, in addition to expenditures for basic equipment and required licenses, must be figured somewhere.

Except to locally honor some fund-raising political candidate or charit­able cause, most of us would think it a long time before buying a ticket for a $40 dinner, or even a $10 platter, yet a meal made from a day’s limit of ducks costs us from $16 to $40, everything figured. But, as any avid duck hunter will substantiate, that is an entirely different matter.

Dollarwise, the upland gunner and the small game hunter come out cheapest of all. Equipment needs and associated expenses are invariably less than those of the big-game hunter and the waterfowler.

Excluding gun and ammunition, the approximate cost figures out somewhat as follows:

- Shooting Glasses (non-prescription) ... $15.00
- Lantern ... 7.00
- Gun Cleaning Kit ... 3.00
- Hand Warmers ... 4.40
- Duck Call and Instruction Record ... 5.50
- Taxidermy ... 59.00
- Gun Case (leg of mutton, leather) ... 20.00
- Insulated Underwear ... 27.00
- Hunting Glasses, Belt and Gloves ... 15.00
- Boots and Socks ... 23.00
- Waterproof Hunting Suit (for wading) ... 23.00
- Parka ... 25.00

my sheath knife $18, my camera closer to $100 than the stated $25 allowance. So, actually, a deer hunter, I have far more than $337.50 invested in the basic equipment I must own and maintain for my annual deer hunting — exclusive of rifle. I don’t think I’m an exceptional case, either, judging by observations of the quality and quantity of gear companions.

Invariably, the deer hunter wants the best equipment he can get. Some readers may be inclined to question the necessity for the listed camera expense. Admittedly, a camera is not a necessity to the hunter, but few hunters participate long in their chosen sport without having a few snapshots as mementos of enjoyed trips. Consequently, I am listing camera and film expense as a hunting expense common to all forms of participation.

The waterfowl hunter fares only a little better than the big-game hunter. If anything, he generally has to work harder to bag his game, yet finds it carries a fancy price tag, too.

For his specialized hunting, he will usually need specific items of equipment in addition to certain basic needs common to all classes of shooters. Duck hunting, for example, requires habitual use of decoys and calls, and warm, waterproof clothing, the cost of which adds up. If an average Joe, the duck hunter will need:

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- Waterproof Hunting Suit (for wading) ... 23.00
- Parka ... 25.00

Ever since I considered it, generally come along with rifle and other big things than so-called small game hunts or shot. Why even talk about it?

Thermos Jug or Bottle ... 10.00
Camera and Film ... 30.00

That’s the approximate initial outlay, without adding cost of gun, am­munition, food, transportation, boats, use of harvest tag, blind construc­tion, dogs and their maintenance and whatnot!

Just one item — ammunition — can often be costly. During the water­fowl season, a good shot who gets out just about every legal day will spend about $40. For duck loads, the poor shot up to $70. For the average hunter, it takes 30¢ to 40¢ worth of ammunition to put one duck in the game bag! All these costs, in addition to expenditures for basic equipment and required li­censes, must be figured somewhere.

Of course, to this basic total, the upland hunter and the small-game hunter must add the expense of hunting dogs and keep, transporta­tion, food, shooting preserve fees (if hunting on a pay-as-you-go commer­cial setup) and license.

License cost, whether for one-time duck hunters or those who go in for the full hunting season program, is fixed and relatively minor as a unit expense — but there just the same. I find this I annually buy a state hunt­ing license ($7.50), a Game Manage­ment Area hunting permit ($5.00), an Archery Hunt permit ($5.00) and a Duck Stamp ($3.50) — which figures up to a total of $20.50 before I can even get into full swing.

Added extra, and voluntary, expense is public liability insurance. Al­though I am consciously a careful hunter, still, I don’t want to hunt without my landlord-hunt or compa­nions also knowing I am acutely aware of my responsibility and am cognizant of the possibility that ac­cidental property damage can occur despite one’s most earnest efforts to prevent such. If I hunt anywhere or accidentally damage some­one’s person, my property damage insur­ance can cover any claim. I have an excess, personal liability policy, which I at least want to know I can stand back of the incident financially. Hence, another year goes to pay for liability insurance, plus $9 more for all-risk coverage on equipment used.

Even if you don’t kill anything. (Continued on Page 37)
The strain hum of air conditioners...
Among the many creatures of the wild, some are definitely not easy or likable to study in their natural environments. Wild deer will usually put distance between themselves and curious observers and skunks, for example, do not inspire close, carefree approach. Some persons have a morbid fear of all snakes and insects.

Frogs, on the other hand, are harmless and at least outwardly friendly, if not always cooperative. They are comical characters—in both physical expressions and actions—and serious nature students will find them extremely fascinating subjects.

Especially do boys and frogs seemingly get along great. Rare is the boy who reaches adolescence without having at least one frog as a pet. Whether willingly or reluctantly, specimens often appear among the contents of boys' pants' pockets—usually to the surprise and consternation of mothers and teachers.

Frogs and toads are among the earth's oldest known inhabitants. Authority Charles M. Bogart says they have been around almost 200 million years, and appeared some 100 million years before man. In fact, he says the first voice heard on earth could well have been that of a frog.

Frogs are tailless, ribless amphibians, with generally smooth skins and usually teeth in upper jaw. Zoologists classify our frogs under one genus, Rana, but seemingly do not agree on the number of known species. Some say there are 24 separate species in the United States; other authorities claim 68 known species and 99 sub-species.

Many of these are to be found in Florida. Included are strains of tree frogs, swamp chorus frogs, Spring peepers, narrow-mouthed frogs, gopher frogs, cricket, robber, leopard, the big green and, of course, the bullfrog, largest of all in adult size.

Easily found tree frog species will prove interesting subjects for first frog studies. A close observer will note that Nature designed tree frogs with adhesive grippers on their toes so they can climb trees with ease.

When necessary, a tree frog can also change his body color to match surroundings, but he can do it quickly, like a chameleon. It takes him at least an hour to complete his camouflage. Because tree frogs can remain perfectly still for long periods, they can be difficult to locate unless their cheerful songs can be traced. Unusual moisture brings them out of hiding and stimulates their food-seeking.

The reaction of frog and toad populations to moisture and warmth has been the basis of numerous myths about the creatures. There have been “reliable” reports of “showers of frogs” in certain areas. Zoologists, however, do not give such stories credence; they explain that during the rainy season many terrestrial species of frogs and toads naturally come forth in great numbers in some localities. They emerge from hibernation or hiding; definitely don't fall from the sky as gentle rain from Heaven.

Small, green tree frogs are often seen clinging to window screens of Florida homes during the summer months. Contrary to belief, they aren't seeking entrance to the house, but have been attracted by the potential food represented by insects which, in turn, have been attracted to the window screens by lights within the house.

Leave the little frogs alone! Each one about the premises is said to be worth more than a hundred times its weight in insecticide. If you must remove them from screens, gently pick them up and release in another location—but don't kill them.

An interesting specimen in another section of the world is the Amazon tree frog; it takes steps to assure its family of a home swimming pool and a built-in food supply. For a home site, the little frog selects a hollow tree trunk that will catch rain, and waterproofs the cavity by lining it with beeswax obtained from the combs of jungle bees. The young that are hatched from laid eggs not only have a swimming pool in which to cavort, but each tadpole is hatched with an extra-fleshy tail, to provide a source of nutrient until it develops into a frog and can leave the nest in search of needed food.

Albinism occurs among frogs, same as it does among others of Nature's creatures, but the occurrence is extremely rare.

However, it has happened—and in Florida. During recent months, Dr. John A. Davison, zoologist at Florida State University, has carefully cared for three of the extremely rare white frog specimens, in the hope of raising them to maturity and introducing the first pure strain of albino frogs in the world. So far as Dr. Davison can determine, he has the only albino frogs in the world. (Continued on Next Page)
New residents of the Florida Keys region soon get acquainted with a light-patterned, small-bodied frog almost as long as the Key West spadefoot. Among frogs and toads, it is the males that are notably vocal. Most can inflame a sac in their throat to add power and resonance when sounding their calls. Probably loudest of all is the "jugo-runt" cry of the bullfrog, which some listeners compare with the lowing of cattle. The bull-like bellow possesses both volume and distance.

The glee club chorus of several healthy, happy frogs can be confusing to listeners in respect to numerical presence. Consider the case of an alert fellow down Texas-way who read the advertisement of an Ohio firm seeking bullfrog skins, and who wrote advising the Ohio firm promptly placed an order for 100,000 skins. Ten days later it received a large package containing just one skin, to which was attached the following note: "Gents—Here's all the frog skins I cud find. The noise sure fooled me!"

Stagnant freshwater ponds and marshes usually have bullfrog populations with a high success rate in catching frog eggs, a circular area embracing Belle Glade and the outskirts of St. John's Marsh and Vero Beach and Arcadia is considered by professionals as being the "golden" frog-mating season. In the aggregate, enough Florida frogs are gathered annually for the commercial market to create a line 840 miles long! To froggers, the yearly "take" represents more than a million dollars, wholesale value.

Working at night, professionals use airboats to reach choice locations, and powerful headlamps to find and immobilize frogs for digging or grabbing.

As many experts can verify, in fishing for Florida largemouth bass, water temperature and the depth fished have a lot to do with one's success. An angler who knows how to effectively use live frogs will undoubtedly take more and heavier fish than the plug caster.

It is from late afternoon until dark that live frogs can be best used as bass bait, but the possibilities of close to surface fishing by starlight should not be overlooked. Apparently, bass are less wary, strike more quickly and harder as darkness blankets familiar haunts.

Most school biology classes teach the metamorphosis of frogs from the tadpole stage. The tail gradually disappears as the legs and lungs develop more fully. In boat, because of their attractiveness to water moths. When captured alive, frogs must be kept damp and cool, out of the direct rays of the sun. If placed in temporary storage in boxes or sacks in a pond or stream, it is essential they be permitted to reach the surface to breathe. Incidentally, if you aren't familiar with frog voices in chorus and solo, I suggest you acquire the phonograph record Sounds of North American Frogs, recorded by Charles M. Bogert. The long-playing choral is a wax product of Folkways Records.

From egg to adult stage, frogs have many enemies. Water beetles eat the eggs; fish, snakes, wading birds, snapping turtles and other predators take heavy toll of bullfrogs and adult frogs. If lucky, however, an adult frog or toad can live a long time, the hop-toad, for example, has been known to reach 36 years of age in captivity.

Most school biology classes teach the metamorphosis of frogs from the tadpole stage. Hind limbs appear first, then forelegs. The tail gradually disappears as the limbs and lungs develop more fully. In the bullfrog species, the tadpole stage may last as long as two years.

Since there are no ribs to activate lungs, the process of breathing by an adult frog is somewhat like swallowing. The porous skin also contributes to a frog's respiration.

It is possible to suffocate a frog by simply holding its mouth open. The mouth is the biggest part of a frog's head, incidently—an expanded cavern which it seeks to fill with favored food items at every opportune moment. The brain is small, only about the size of an adult bullfrog's eye, in other species.

According to the U. S. Fish and Wildlife Service, propagation of frogs on a commercial scale has not been successful except in rare instances where natural breeding places exist. Most of the success claimed by a few "frog farms" appears to have been in the sale of breeding stock to would-be frog farmers, a sequel to a situation long found in the chicken-raising industry.

Don't count on collecting, penning and then feeding bullfrogs artificially to keep them alive! They have voracious appetites and will accept only live food, or dead natural food that is given, simulated, life-like motion. (This attraction for moving objects makes frog pets easy to train to do a few simple tricks.)

Succulent bullfrog legs are a gourmet's delight. Tasty preparation for the table is both simple and speedy.

One recipe is to skin the frog saddles, dip in lemon juice, then in beaten egg, sprinkle with salt and pepper, then dip in cracker or bread crumbs rolled under a rolling pin or bottle. Fry in deep fat about three minutes; remove and drain off excess grease on an absorbent paper towel.

However, I prefer another method of preparation! Marinate cleaned frogs' legs in salt water for 15 minutes, then drain and sponge dry. Roll the legs in fine bread crumbs, then in beaten eggs and again in crumbs seasoned with salt, pepper and a few grains of nutmeg and cayenne. Fry in a wire basket, in deep fat at 375 degrees F. Drain and set cooked legs on an absorbent napkin or towel. Arrange on a hot platter, with a dip cup of tartare sauce....

As many experts can verify, in fishing for Florida largemouth bass, water temperature and the depth fished have a lot to do with one's success. An angler who knows how to effectively use live frogs will undoubtedly take more and heavier fish than the plug caster.
Florida's Pleistocene Vampire

By S. J. Olsen
Florida Geological Survey

The vampire and its host, the ground sloth. The vampire is more abundant in those areas within its range, which contain limestone caves. In this respect, Florida was well suited as a habitat for Desmodus during the Pleistocene and apparently is little changed at the present time.

Florida at the present time is unique when compared with the adjoining southern states. The variance of the fauna was even more apparent during the Pleistocene age when the peninsula was populated with an assemblage of strange creatures, both large and small, which congregated in considerably larger numbers in Florida than they did in other parts of this continent.

The bulk of this animal population was dominated by the huge warm blooded mammals such as the ground sloth, mammoth, mastodon, horse and tapir. The caves and low growing lush vegetation had many more smaller mammals, some forms of which are present as inhabitants of the warm forests of Florida today. Not all of these small mammals were to be found on the forest floor; many were cave dwellers by day and travelers of the air by night. If we are to judge by their accumulated skeletal remains, these last forms, the bats, were well represented as members of Florida's Pleistocene fauna. The sky was the nightly haunt of multitudes of bats during the Pleistocene and would not appear noticeably different from the evening sky seen at the present time, with one exception; present among the flying insectivores of several thousand years ago was a small winged mammal that has been held in awe by man since that time when they both first occupied the same environment. This singularly interesting animal was Desmodus, the vampire bat. The vampire's range at the present time is transequatorial, extending from northeast and central Mexico south to Uruguay and northern Argentina, and including the coastal islands of the Caribbean. The most northern limit of its range is Tamaulipas, Mexico, which is about 130 miles south of the United States border. Desmodus is known from Pleistocene cave deposits in Cuba and from the San Josecito Cave near Nuevo Leon, Mexico. However, the Florida vampire is known only from a Pleistocene cave deposit in Marion County near Reddick, Florida. Although well known Pleistocene deposits are present in Sabertooth Cave, a few miles to the south and in Haile and Arredondo, a few miles to the north, none of these localities have yielded a single bone of the vampire from among the numerous vertebrate remains which have been collected from these sites. The accumulated bones of this animal came from a comparatively small area of what was once a large cave having several outside openings. The cave itself has been mined away for the limestone, by the present owners, Dixie Lime Products Corporation, so that the once dark interior floor of the grotto is now open to Florida's sunshine.

Although the bones of insectivorous bats are common in other parts of the cave, none of these have turned up in close association with those of the vampire.

It is impossible to determine from the skeletons alone how large a colony existed in Reddick Cave during the Pleistocene, but the present day representatives of the genus usually consist of colonies of less than a hundred individuals, of both sexes.

It is not surprising, in view of the vampire's diet, that the accumulated excrement beneath their nests is a characteristically blackened, tar-like, malodorous mass. The matrix in which the Reddick vampires were entombed was a dark snuff colored material, as compared with the light buff colored sediment which is typical for the rest of the cave floor. This darkened matrix retained a pungent odor and was more "greasy" to the touch than was the matrix a few feet away.

The fauna of the Reddick Cave is represented by typical Pleistocene cave dwellers and in the case of all other occurrences of Pleistocene vertebrates which co-existed with Desmodus, the one common large vertebrate that shared this cave with the vampire was the ground sloth. Since the Pleistocene vampire found ready prey in the form of this relatively easily obtainable food source, survival during the Pleistocene presented no problem for Desmodus. It is known that this bat only attacks resting or sleeping animals, and that it can move about on the bodies of its victims, bite, and feed without arousing the hosts. This would make the sloth and larger cave dwellers, among the Pleistocene mammals, even more susceptible to the vampire. Two curious and unanswerable questions are: Did the vampire contribute to the death and eventual destruction of the sloth and other large warm blooded animals of Pleistocene Florida; and, if so, did the vampire die out in this area when these hosts disappeared?

It is an accepted fact that the vampire is a vector for rabies and murrina. The latter disease is common to present day horses and mules and is caused by a trypanosome parasite after it enters the bloodstream.
A cooperative research and planning program by various agencies will mean improved sports fishing throughout the Everglades.

George Horrell and Domer Wilson, both heavily tanned and hard from years in the open, are a couple of Florida outdoormen, who love to fish. Each month they keep careful records of the number of bass, bream and other species they take from the State's waters — and during the course of a typical year this number will run into the thousands.

Yet these men experience little thrill from lifting a big bass from the water. For there is no sudden strike preceding it, no violently bending rod with taut line cutting away through the water from their boat. Instead, the fish are caught in gill nets — sometimes even poisoned with rotenone sprayed upon the water. They're lifting a big bass from the water. For there is no year this number will run into the thousands.

Object of such research is to determine existing fish conditions, explains the stocky Horrell who is co-leader of this Dingell Johnson project FSR. (The U. S. Government provides three-quarters of the necessary funds; Florida the remaining fourth.)

Project FSR calls for a study of the effects of C&SFFCD and U. S. Army Engineer proposals for providing and manipulating water levels in the 13 Florida counties of the FCD program. If, for example, the Engineers want to straighten out a bend in the Kissimmee River, the fish management men immediately attempt to determine how such a change will affect the State's fishing and other recreational resources. And if the proposed change appears to threaten such resources, they try to see if it couldn't be done in a different manner that would still satisfy both factions involved and yet achieve the same end.

"It is most important that we know beforehand the bedding, spawning and other habits of fish in a certain area so we can tell the Army Engineers and other concerned parties what minimum water levels must be maintained," Horrell told the writer as we taxied our airboat alongside an ugly-looking workboat which the men had left anchored the day before in the flooded sawgrass marsh of the No. 2 Area, a half dozen miles east of the Andytown entrance.

"If the water level should drop too low the vegetation soon grows and becomes too thick," the biologist went on. "Again, if the water is maintained too high there are no shallows for small fry to spawn and be protected from the mature fish. The ideal is one where there are both grassy shallows and open water areas."

In the Andytown area (the southern end of the No. 2 water pool) this would mean keeping the level at least 10 feet above mean sea level. Even with such a water table existing there we found practically no water at the next gauge northward from this point, a distance of about five miles into the No. 2 Area. Here there was but a couple inches. And the men told ruefully how they've recently been obliged to get overboard into the oozy mud there to push free their stuck airboat — moving it sufficiently to get under way again.

This lack of vital fresh water in this potentially tremendous bass fishing site has caused the wanton waste of uncounted tens of thousands of choice bass, bream and other important gamefish in the past. Great flocks of carrion birds have been pictured by the writer devouring the exposed fish bodies; and the stench of the rotting carcasses has soured the otherwise sweet Everglades air, causing an estimated annual sportsmen's dollar loss of some $40 million each year to the economy of this South Florida area.

The two fish biologists began their studies in this No. 2 Area last July and since then typical work days for the pair have gone something like this: after breakfast in their large combination traveling field laboratory and living trailer (which is parked behind a gasoline station at the tiny Andytown crossroads settlement) the men shoo' off from one of the four nearby launching ramps recently built by the State for sportsmen in this southwest corner of the No. 2 Area where U. S. Hwy 27 and State Road 84 intersect.

Special one-acre observation sites have been assigned them through the area and they make for the nearest of these to see what fish species may have become caught during the preceding 24 hours. (Nets are usually left out for one-day periods only.)

Before the net is lifted the water level is recorded at the Andytown (No 2) gauge and critical chemical tests are made at the net site. These include measuring the "Ph" factor, to learn whether the water is on the acid or the alkaline side. In such the same manner as your stomach can show signs of distress from an over-acid condition, so does the fish population suffer should the acid-alkaline balance be upset too far in either direction.

Following this the amounts of dissolved oxygen and carbon dioxide in the water are checked. The latter is especially important since too much will kill fish, which depend upon oxygen taken from the water.

(Continued on Next Page)
While Domer holds the small hanging bass, George Horel makes microscope inspections. The technicians use a large trailer as a laboratory, and for sleeping purposes. The incubator machine is being operated by Domer Wilson while George Horel makes microscope inspections.

Watching these two weather-burnt men at work it was obvious they enjoyed their job, tedious though it might seem to the unaccustomed observer. George Horel confirmed this.

"Each day offers something different — you never really know beforehand what to expect," he said. "One day we might net a lot of fish, the next day only a few.

"We humans still haven't learned fully why the fishes move. Sure, we know that they move onto the spawning beds, and so on. But we do not know, for instance, what makes them suddenly decide to leave the marsh and enter the canals; whether this is the result of temperature conditions, or what.

"There does seem to be a definite rhythm to such fish movements, but we don't yet know what are the motivations."

This, it developed, tied in directly with what the two Biologists considered to be the greatest problem associated with their work here. "It's not the snakes, nor the heavy aquatic growths that interfere with the proper placement and raising of the nets, nor the winds which sweep over these open reaches to hinder effective use of the rotenone poison . . . instead, it is the problem of convincing sportmen and the public at large that you are not wasting time on a job like this," George Horel observed quietly. "You simply can't launch into such a challenging project and come up with the whole answer in a single year — or even two. It calls for time and patience. The public seldom understands this, hence brings pressure to bear and the work time is shortened accordingly; rushed through, as it were, on a hopeful basis. This jeopardizes the whole project.

Horel feels a minimum of three years is necessary to research such a job and come up with effective recommendations.

As we retraced our way out through the flooded marsh, this time pushing before our airboat the motorless workboat, Horel (who has been with the Commission for 10 years told how he and Domer try to get away from their lonely work station whenever possible on week ends. Wilson, with four years of camping experience, likes to hike in Okeechobee with his wife and two children. Horel is unmarried.

Both men reiterated the vital need for maintaining the critical water levels necessary for the future of this big sawgrass swamp if sportmen and the families of South Florida are to enjoy the profitable fishing and outdoor recreations it could well provide them in years to come.

"Time and again we've suddenly encountered areas here when the water dropped away entirely — and once you get started into such a 'dry' there's no turning back with an airboat," Domer said. "These fly-workboats Continental engines we use will push you for several hundred feet before letting the boat stop — but when you do stop you're stuck good.

The two told laughingly of a fellow Commission member who'd gotten caught thus on dry ground. "He tried running alongside the boat as he pushed it, working the gas pedal with one hand to help things along as he did this, when somehow the boat spun about and ran him down — ran right up onto his chest.

"There he was, flat on his back in oozy black mud, with the prop turning overhead trying to push the bow up farther against his Adam's apple — and no one to help get it off." The referee airboatman finally managed to wriggle free. But when he returned to the landing he was indeed a sorry-looking specimen of humanity. His buddies kidded him mercilessly.

Many times those less skilled in the ways of the big tropic swamp suffer more serious consequences. Sportsmen, bird-watcher's and others frequently become lost. Or they experience motor failure. And then they must face the long, oftentimes frightening night with its sounds and bugs and animals and reptiles. (Poisonous water moccasins abound here.) For all who would venture into the Everglades. George Horel and Domer Wilson have these brief but important words of advice: Be sure to take along matches, mosquito repellent, a lantern or flashlight, and always retain a real blessing to cover you and provide protection from both weather and insects. To use it simply spread it out and roll yourself up inside it.
AMAZING MAMMALS
of
Blue Springs Run

By CARL S. LEDBETTER

(Continued on Next Page)
One of the large manatees swam by the side of our boat to splinters. He looked at me, mopped the perspiration from his forehead, and just sat there for a few moments. We were in a twelve-foot fishing boat and the wooden flippers much like a bristly, tumid and close-growing boil for almost three hours. That we sat there in a semi-trance. We were in a twelve-foot fishing boat, and it was fully as long. Its skin was dark grey, almost devoid of hair and wrinkled like that of an elephant. We estimated that it was about eight feet in circumference and the powerful, paddle-like tail about three feet in diameter.

As it swam by, I could see the bristle-tipped, tumid lip that resembled those of a cow. The upper one is split and these two parts act like a pair of forceps when this vegetarian feeds. This fortunate heterodont has six teeth on each side of its parent neck. As it swam by, I could see the teeth fall out, the entire lip pushes forward and a new flat-crowned one comes in place at the rear of the jaw. It has no visible ears, and no apparent nostrils. As it swam by, its small, almost circular eyes stared at us disdainfully. It seemed to realize that it had so desired, one blow from that mighty tail could crush our boat to splinters.

After it had disappeared we were speechless for a long sixty seconds. Ty looked around at me, mopped the perspiration from his forehead, and said, "Let's get out of here. Even though the things are supposed to be harmless, they just too much big to take any chances. And also there is twenty feet of cold water beneath us!"

I assured him they wouldn't bother us and persuaded him to row closer to the other manatees so I could get some pictures. We moved up to within ten feet of them. One of the calves swam over to the boat, went under and out the other side. The adult manatee got more and more restless. The blowing noise they made when surfacing for air was now much louder and more menacing.

Suddenly, one of them whipped its massive tail up in the air and smacked the surface a scant oar's length away. I was so startled I could not get very far away. The female manatee holds the baby with her pectoral udders. She ^

Our advice to you thousands of curious visitors to the manatees' winter quarters at Blue Springs is: be sure to see them while you can—bait from dry land, and from a distance!
need to keep your dog from being bitten by mosquitoes. This is a big chore, but it is certain that heartworms are prevalent in Florida. Obviously, if you live in a neighborhood where neglected, uncared-for dogs, infected with heartworms abound, the chances of a loaded mosquito biting your dog is very great. Again, in theory, if all dogs throughout one generation could be protected, heartworm would come to a dead end.

Heartworm kills dogs all over the world. It was once thought they were a problem peculiar to the south. This is not so. If a visitor brings a dog to the south where he develops heartworm, the mosquitoes back in Wisconsin or New Jersey will begin infecting the dogs of those states when that dog returns. Of course, the same thing is true of Yankee dogs who bring heartworm down south.

So much for the worm itself. This same worm in slightly different form causes the dread elephantiasis of the South Seas. In this case, the worms attack the lymph glands of the human rather than the blood vessels, as in dogs. In either case, it is a particularly revolting process.

It would be difficult to say how many adult worms are necessary to kill a dog. Dr. Robert Knowles of Miami, Past President of the Florida Veterinarians Association, is a leading authority and one of the earliest experimenters with heartworm. Dr. Knowles has taken as many as 312 worms from a dog’s heart. A large dog could probably play host to more worms than a small one. Three hundred and two dead heartworms from a dog’s heart would weigh a tangle mass about the size of a golf ball. The average dog’s heart is the size of an orange, and its complicated mechanisms work smoothly and efficiently to maintain life. It is easily seen that the worms complicate the process.

As a dog with heartworms begins to show listlessness, he has shortness of breath and gets the heaves. He develops a harsh, racking cough, and his breath takes on an disagreeable odor. These unfortunate dogs shun exercise, they lose their appetites, and their coats get dull and dry. Sometimes in the later stages, the dog swells, goes into convulsions or coma. Death is not far away when these symptoms are readily apparent.

It’s easy to determine if your dog has heartworms. Just take him to your veterinarian for a blood test. The vet will take a blood sample to view on a slide under a microscope. If heartworm larvae are present in the blood, they can clearly be seen. In fact, most vets will invite you to see them for yourself.

First let’s take up the proper procedure for the dog that has heartworms. One thing is for sure, the worms won’t go away by ignoring them. If you care for your dog, now is the time to take action.

An infected dog’s age has a lot to do with what kind of treatment is possible for him. If you have been having your dog tested for heartworm regularly, as you should, your vet can determine within a few months the time the infection has run. It takes a heartworm from two to eight months to go from an in­Ifectious larva to an adult worm; thus if your dog is being checked every four months, a show of larvae in the blood stream will indicate an in­Iection of recent and minor nature. Under such conditions, the usual treatment of heartworm infections would probably cure your dog with little or no discomfort.

The really big problem is the older dog with no previous heartworm checks. When this dog comes in for treatment, what will the veterinarian do? Can he tell how long the infection has run? If the dog is badly infected, the treatment could easily kill him.

It is important to understand that it is not the heartworm drug that kills the dog. In most cases, the heartworm dosage injected into the dog’s blood would cause no serious problem. It’s the dead heartworms that complicate the treatment. A lot of the worms clings to a portion of the heart, caus­ing that miraculous organ to work overtime performing its function. Eventually, a slow but certain death. Quickly killed by the heartworm treatment, they float in a mass through the blood stream to cause possible complete stoppage of the blood and almost instantaneous death.

The delicate trick in treating badly infected dogs is to kill the worms so slowly that the dog has a chance to work off the effects of the dead worms over a prolonged period. This is not always possible. Most veterinarians believe that surgical removal of the worms in badly infected cases is much more likely to be successful. In surgery, the worms are removed by instruments from the heart, while the blood is being artificially circulated through the dog while the operation is in progress. This surgical removal gives the dog a much better chance for survival.

Dr. Robert Kuhn, veterinarian of Stuart, Florida, who pioneered in this type of surgery at its beginnings back in 1952, has had consistent suc­cess with heartworm surgery on dogs that would have had no chance at all with drug treatment. Unfortunately, there are only about five veterinarians in Florida who can perform this heart operation. Most do not have the equipment necessary.

In fact, there are only 15 to 20 veterinarians with this experience in the whole country. If you are in­terested in the subject of surgical removal of heartworms, your own veterinarian can get you additional information about where these operations can be performed.

The best protection you can pos­sibly have against your dog develop­ing heartworm is regular check­ups and treatments. This is the sys­tem now being used by many Flor­ida veterinarians and by Doctor’s Knowles of Miami and Dr. Kuhn in Stuart in particular. My own col­lie, now 2 years old, is free of heart­worms. Since she was 4 months old, I have taken her to Dr. Kuhn every four months for a series of two shots. These cause my collie no discomfort and produce no distasteful after­effects.

These regular, preventive shots are not vaccine. They do not immunize the dog, although these experiments are leading in that direction. At the present, these regular shots are de­signed to kill any heartworm larvae the dog might have acquired since the last treatment. The shots are the same as would be used in the regular treatment for heartworm. They are just not so massive and are fewer in number.

In three years of using this system, on many dogs from a truly bad heartworm area, Dr. Kuhn has never had a treated dog show up with heartworms. In fact, Dr. Kuhn feels his "light dose" regular treatment is more likely to be effec­tively proven to warrant withhold­ing this light treatment unless the 4­month check actually shows heart­worm larvae present in the blood stream. For myself, I have such a dread of this disease, I’ll go along with the regular treatment. It is a little more expensive and trouble.

Dr. Robert Kuhn of Stuart with author's Collie. Dr. Kuhn is one of Florida’s pioneer heartworm prevention specialists, and recommends this treatment highly.
Another Program through Wildlife Management dedicated to the conservation and restoration of Florida's deer

With the most modern testing equipment available, Dr. Pritchard checks blood samples from the deer herd, constantly on the alert for development of any new diseases.

FLORIDA'S RESEARCH DEER HERD

Sapphire's big round eyes were apprehensive as she was eased into the squeeze box for her weekly shots and blood test. This was nothing new to her but those needles still caused her some degree of concern.

As she entered the box, her handlers quickly applied the neck and body stabilizers to render her motionless. Dr. W. R. Pritchard opened the rear hatch and injected a shot of tranquilizer into her rump to keep her as calm as possible. Then he moved to the front of the box and took a blood sample from her neck. The whole operation was over in a matter of seconds and Sapphire was released to return to her pen with the other deer in Dr. Pritchard's research herd.

Dr. Pritchard, head of the Department of Veterinary Science at the University of Florida, has been conducting a study of deer with the cooperation of the Department of Internal Medicine, the Department of Animal Husbandry, the Division of Wildlife Management, the Game and Fresh Water Fish Commission, the U. S. Public Health Service, and the Eglin AFB Wildlife Board.

Diseases of domestic animals have been under study for many years. Three years ago, Dr. Pritchard requested the assistance of Matt Whisenhunt, wildlife biologist for the Game and Fresh Water Fish Commission, in collecting blood samples from the deer herd at Eglin Field. Dr. Pritchard traveled to Eglin Field where he and Whisenhunt obtained blood samples from trapped deer.

Dr. Pritchard returned with these samples to his laboratory and in the first tests found that Eglin deer were unusually free of disease. However, traces of an abnormal blood condition in a few of the samples was discovered. This prompted him to alert the Game and Fresh Water Fish Commission of his findings so that samples could be collected throughout the entire state to determine statewide distribution of the abnormal blood condition.

The next season, random samples were collected from hunter-killed deer during the annual hunts. More abnormal blood cells were discovered in the specimens and researchers felt that a complete deer disease study should be undertaken.

Dr. Pritchard prepared a work program for the project and it was approved. He already had the laboratory and testing equipment but he would need live deer. The Game and Fresh Water Fish Commission (Continued on Page 49)

PHOTO STORY BY JIM REED

FLORIDA WILDLIFE

JULY, 1960
Commonly called water rat he is a unique member of Florida's fauna

VEST POCKET MUSKRAT

By MORRIS H. SHAW

Between the deeper bass and bream haunted waters of many a Florida pond and lake and the more or less firm ground of "the hill" lies an intermediate zone. This strip may be measured in feet or yards or some times may even completely cover what was once a body of living water. At any rate it is in this zone, the wavering quaking cover what was once a body of living water. At any rate it is in this zone, the wavering quaking...the scientists have tabbed the creature. To most of us however, if we know of the animal at all, he is usually round-tailed muskrat or just plain and simple water rat. Actually Neofiber does appear very much like a scale model muskrat. All except for the tail that is. Whereas the muskrat's tail is somewhat flattened in the vertical plane, the water rat's tail is round. Tails of both are so sparsely haired that they may be considered naked.

The water rat is no adverse to salt water and frequently in the salt marshes and coastal savannas sizable colonies are to be found. They are adaptable animals and even the complete drying up of the home pond does not necessarily prove catastrophic. They can live on dry ground and, especially in the 'glades country may do so by choice. The animals or their workings may here be encountered in gardens and about the cultivated fields.

The water rat is an excellent swimmer but it is seldom they will venture far into open water by choice. Its body size is such that even a small 'gator or a fair-sized bass could down one in a gulp. For the water rat, life at best is beset by a multitude of perils without courting additional ones. The screening jungle of aquatic vegetation offers at least some measure of protection for the animal so it is small wonder that here he stays most of the time.

Water rats are colonial creatures by nature, similar in this respect to their comparatively gigantic cousins the muskrats. A colony is featured by a maze of runways, averaging something like three inches in width, threading and twisting here and there among the vegetation. The trails frequently bob underground for a distance or beneath the mats of sphagnum and decaying vegetation. The round-tails' living quarters, in the typical ooze zone habitat, consists of a small scale muskrat-type house of heaped vegetation with a central nest chamber slightly above the water level. The house may be only a foot in diameter or, if it is an unusually large one, as much as a yard across at the base. Sometimes there is a conspicuous ground level entrance but there are always at least a couple of underground or underwater exits to provide safety against unwelcome intruders. At times, the rat may plug the entrance with balls of mud scraped up from inside the house. The trails are not infrequently water filled trenches through which the animals trundle without apparent concern.

In deeper water they swim by paddling with their large hind feet and sculling with a side to side motion of the tail in typical muskrat fashion.

Most of the creatures' activities are carried out under the cover of darkness. For this reason, owls probably pick off many more of the animals than ever fall prey to hawks. Feeding platforms, usually sites from which the vegetation has been cut or trampled down, are the round-tail's dining table. To such spots the animal brings stems and seed pods of arrowhead, water bonnets, and flags, the seeds of arrow-arums, and such tidbits to feast on at leisure. They frequently dig in the muck of the marsh for the underground parts of many of the plants which comprise their diet. Crayfish are also eaten.

In the southern part of the state, there seems to be no particular breeding season and young may be found at any time of the year. In the north however, late winter and spring is apparently the time at which most of the young are brought forth. Because of their small size and the short thin guard hair, the pelt has very little or no value as a product of commerce. At any rate it is a unique and interesting member of our fauna in Florida's vest pocket muskrat.
WINDOW WONDERLAND

By MARGO HOSFORD

I watched the strange antics of my

Like sitting

on the fifty-yard line.

I saw this performance only once but it was surely another moment to remember.

Red-bellied Woodpeckers often show signs of human reasoning. There was the morning during the nesting season when a handsome male came to the backyard feeding board and found a complete meal of fresh orange, suet and grain. Chasing all the other birds away and keeping them away, he ate until he was satisfied. Then he started urgently calling to his mate who was probably on the nest. Not until she flew in at ease did he leave and go back to take over the nesting site.

These woodpeckers are the strictest of disciplinarians and the art of self-defense is learned early by the young. It is several days after they have left the nest before they are allowed to accompany their parents to the feed board. Even then if a jay or Cardinal or any other large bird lands, the young bird is hustled off.

As he grows older he becomes increasingly reluctant to leave the food and will persist parental scolding and show his hatred of “cheating” under the edge of the board to dodge the blows. Then the exasperated parent redoubles the pecking and screaming until the little fellow takes off for the nearest tree, still crying defiance. For that he is chased farther and receives more punishment.

The parents simply refuse to guard the rod.

So from the time they are left on their own the young are fully capable of taking care of themselves. Before they take one bit of food they scan the sky in all directions and keep a keen watch all during the feeding.

If any bird lands, no matter how large, he is

I happened to see three rabbits baring to say good of art and keep love.
After a final stop at the table she flew away. She has been back more than once though not for such an extended tour.

It isn't every day that birds have access to the inside of my house but now and then I must resort to putting the sunflower seed on a tray just inside the window. Else the squirrels and Blue Jays get it all. There aren't too many days sufficiently free of insects to have the screen out and I must pick my times for this special event.

A low table at window-sill height makes the tray almost a continuation of the feeder attached to the outside of the sill, giving the birds easy entrance and exit.

Cardinals seem especially to enjoy indoor dining and show little hesitancy about coming in. The small gray Titmouse is a bit more cautious and must first think it over and discuss it with his friends. If the regular seed holder which hangs just outside is empty of all but the husks left by the Cardinals, he will sit on the edge of it, tossing them out one by one. All the while he is scolding and casting reproachful glances toward the window.

Once he overcomes his uncertainty and comes inside he is quite bold and will take his time selecting a seed to his taste. Then he must take it outside to hold it with his feet on a branch while he cracks it.

Sometimes he becomes over confident and runs into trouble, as on the day a Cardinal flew in just behind him. Frightened by the unexpected arrival he flew on through the living room to the screened porch where he became panicly when he found himself trapped. He clung to the screen crying in alarm, while his mate, outside the screen, chattered in sympathy.

By dropping the blinds to darken the porch I was able at last to herd him back to the windows but instead of going to the open one he landed in one that was screened. When I managed to hem him in behind a curtain and catch him, he was frantic. I was well nipped by that sharp little black beak before I could release him outside.

For five minutes he told the world and his fellow Timico of his horrible experience, but in a short time he and his entire family were back.

One immature Cardinal took indoor feeding as a matter-of-course and any time an older member of the family flew in she would calmly move aside and give him the proper entrance.

Next to catch her eye was the rug and down she came to try to pull the fringe from it. I felt sure then that she had nesting on her mind.

After a while she found it was a less tempting prospect and flew away.

There aren't too many days sufficiently free of insects to have the screen out and I must pick my times for this special event.
bluebird than the species that actually..how the beautiful hue that makes..s the Indigo Bunting's plumage..Passerina Circaea.

The nest is cup-shaped and commonly constructed of grass, plant stems, hair, and the like. Brier thickets, brushy tangles are common nest locales. The pale bluish eggs are without markings. Three or four is the usual number of eggs in a clutch.

The indigo bunting is primarily a seed eater although occasionally insect material assumes major importance. The black and yellow plumage of the bird—they average 8 inches in total length—plus the long tail and distinctive red-brown and white coloration attracts attention to it. The rounded tail with a large white at the corners is a trademark of the towhee.

Muzzle flashes

(Continued from Page 9)

it costs money to shoot. The shot of a centerfire big-bore rifle spends 20 or more every time he fires a target, whether he hits or misses. The shotgunner's shell cost averages out to about 12¢ per shot, all grades considered. The strict quail shooter's cost is about the same, especially if he properly uses low velocity shells. The squirrel hunter can figure an average price of 13¢ per shot if he uses a shotgun, considerably less if he uses a 22 centerfire rifle. But whatever the why and how of the shooting, ammunition expense cannot long be overlooked. Seemingly, hunting is far too ex-

of the animal. This parasite by itself cannot be the bloodstream of the host but has to be transferred and transmitted by another means. This transfer from one animal to another is easily effected by the bugging and latching action of a disease-carrying mosquito. A large scale rabies epidemic occurred in southern Brazil and northern Argentina during the early part of this century and the vampire was shown to be the source of infection which killed thousands of horses and cattle. It is entirely possible that an epidemic of one of the above-mentioned diseases or one that is not yet known today was a contributing

Florida's vampire

(Continued from Page 17)

factor toward the extinction of Florida's large Pleistocene mammal population. If this were true it is not unlikely that the vampire had a share in spreading these infections among the larger animals that shared his cave.

Very little has been learned concerning the factors which limit the range of the common vampire, but it is known that this last adapts itself to a rather widely diversified habitat. In Mexico, for example, it is equally at home on the high central plateau or in the low-lying coastal plain and available evidence suggests that the environment of Florida today does not differ greatly from that of the Pleistocene.

That this animal could pose a problem in relation to domesticated stock is apparent from observations which were made in areas where they now reside. The vampire appears to be more abundant nearer to man's dwellings, than in the neighboring wilderness areas. With the introduction into Florida of large herds of domesticated animals, it would appear that the niche for the vampire in Florida is far from filled and that it is possible that man is the vampire's major enemy.

Nest activity here in this state. Nesting activities of this species in Florida appear to be confined to the northern part of the state and more commonly to the eastern section than western into the Panhandle.

The black and yellow plumage of the male is distinctive although with the change over into the winter dress he becomes somewhat similar in general appearance to the olive brown female. The male does retain the jet black wings, forked tail and a bright yellow shoulder patch through the fall molt however.

On the wing the flight pattern is somewhat different and under-parts red. As its widely used common name "non-parrel" indicates, at least in the color scheme of the bird, the bird is easily identified as an equal.

During both the fall and the spring migration the painted bunting is not often a noticeable number in the state. Some birds winter here, even in the northern areas of the state although wintering birds are more likely to be encountered in numbers in the more southerly parts of the state. Nesting activities of this species in Florida appear to be confined to the northern part of the state except for the Keys and southernmost reaches of the peninsula, is called white-eyed towhee. The other towhee species consists of the state although nesting birds are more likely to be encountered in numbers in the more southwesterly parts of the state. Nesting activities of this species in Florida appear to be confined to the northern part of the state and more commonly to the eastern section than western into the Panhandle.

The three to four eggs are greenish olive. The 3 or 4 eggs comprising the clutch are white with some dark brown spots, the only one

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THE SPECIALIST

TODAY BELONGS TO THE SCIENTIST, the man of research, the expert and the specialist. As the westerner might observe, "He throws a mighty big loop."

The eminently humane responsibility of the old country doctor has been divided and subdivided into a bewildering number of impersonal techniques, illustrating this, the age of the specialist.

People running bell-mell toward what they fondly term "a better life" have developed a penchant for passing laws, with the notion that more laws are an antidote for any new or fearsome situation. With the piling up of statute upon statute, the barrister has been forced to follow the trend of the times. No longer a general practitioner and a man of many parts, he has now become an expert and must choose one phase of jurisprudence: tax law, insurance, divorce, labor or corporation law; or he can become an authority in constitutional law, or a criminal lawyer, or just play it safe and become a government solicitor.

The man of agriculture no longer needs to acquire the varied and sturdy skills of the sustenance farmer who subdued the land as he migrated West. His descendants now specialize in dairying, in poultry, in cotton, growing, or in raising beef or grain; and many of his efforts are subsidized by the tax payer. Behind him stands a legitimate army of government experts, not only to advise him on increasing the productivity of his farm but to help him disburse and spend the subsidies and so help to keep him happy.

The profession of engineering has been splintered up into many parts such as cadstral, construction, hydraulic, mechanical, electrical, electronic and forest engineering.

The assembly line has ousted the ambidextrous jack of all trades once so common in a community who could carpentry, turn his hand as a stone mason or at digging wells, or across a field, or at putting a fence up, or roof a barn, or fix a stove, or mend a parlor operation to the little-understood achievements of the atomic period.

Today's scientists are a different breed than the da Vinci, Newton, Benjamin Franklin, Edison, Muir, Ford, Rockefeller or Kettering. The insatiable curiosity of those pioneers, ancient and modern, took them into the fields of the unknown. They had a passion and an impatience for personal security, an item held to be of first importance in inducing young men to become scientists today. With the possible exception of Kettering, they had neither the back-up of government nor the back-up of millions of dollars in corporate or government money in their initial efforts, nor the prestige that goes with such endorsement.

By and large they viewed the world as an aurora borealis, from horizon to horizon, and from earth to the infinite. They did not hamper their roaming, unfettered. To some degree they all tinkered, as Kettering explained his inventive genius, but they all left mighty big tracks for the newcomers to follow. They were individuals and individualists, and required to be regimented or harnessed by organizations, by traditions, by by-laws, or by the scorn of lesser mortals. They had a fine disregard for what was not important, an item held to be of first importance in inducing young men to become scientists today. With the possible exception of Kettering, they had neither the back-up of government nor the back-up of millions of dollars in corporate or government money in their initial efforts, nor the prestige that goes with such endorsement.
control the specialist and give direc-
tion to the use and control of his
knowledge. In some fields, the sci-
entist and inventor discover them-
elves the responsibility of not
advancing the ideas that may depend
upon the elements of the earth or its
creatures.
An increasing number of people are
calling to gain this stature. In the mat-
ter of time, it is only a backward
blame to the establishment of the first
game management school, in 1933.
But the days are long gone when
one could enforce the same laws,
ought the forest fires and served as
chief egg-picker in a fish hatchery.
Law enforcement and fire prevention
are not the same specialties, as the
result of much pioneering effort, and
the man of science has developed
chemicals that sent the egg-picker
down the same road with the buffalo
and the passenger pigeon.
Today, all departments of resource
management recognize the need for
more intensive study of the biologi-
ical and ecological unknowns which
need intensive examination. The
beginning to accept the scientist and
specialist in these fields, although
these are occasional outbursts of re-
bellion for refusal to blindly broad-
cast fish, because bigger and better
bounties are not paid, or to abandon
sustained yield-cutting in times of
financial trouble or high prices. There
is still a great deal of blind
devotion to the sacred symbol, the
doe deer.
Although the terms forester, rang-
ger, manager, engineer, expert and
specialist infer special training and
superior knowledge, certain facets
of our conservation problems, it does
not always follow that there is the
necessary intellectual capacity, the
depth, the breadth and the profound
knowledge of the wholism of the
varied and sometimes confusing field of
natural phenomena.

THOSE FRIENDLY FROGS

(Continued from Page 15)

Big green frogs make excellent
bait. Hook them through both lips
and they will stay alive until gobbled
up by a hungry bass.
Dead frogs can be similarly
gathered up by the bucketful, for
only recently, untold thousands
were observed inhabiting an unde-
veloped marshy spot right in the
heart of St. Petersburg. Workmen
erecting an automobile agency's
home on a portion of the site
shoved them up by the bucketful, for
productive bass fishing at other
points. frog hunters have found
them.

In the broad field of science, big
government, big business and big
labor have had much to do with de-
veloping our specialists into their
own products. In this case, however,
there are occasional outbreaks of re-
bellion for refusal to blindly broad-
cast fish, because bigger and better
bounties are not paid, or to abandon
sustained yield-cutting in times of
financial trouble or high prices. There
is still a great deal of blind
devotion to the sacred symbol, the
doe deer.

Ours is the principle character
in 'The Wind in the Willows,' an-
other famous text...

As might be expected, frogs—
interesting and friendly creatures
that they are—from time to time
have figured prominently in our lit-
erature. Mark Twain's The Cele-
brated Jumping Frog of Calaveras
County immortalized a certain bull-
frog with prodigious powers of hind-
leg propulsion. In commemoration of his jump, and frog, Cala-
veras County, California, adds
yearly frog jumping events...

A toad is the principal character
in 'The Wind in the Willows,' an-
other famous text...

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yearly frog jumping events...
HEARTWORM AND HEARTACHE

(Continued from Page 27)

been working on another task, with a dry drug developed by the Lederle Laboratories at government request during the last war. The dog takes this drug by mouth, when this is possible for the owner to administer the treatment at home after the correct dosage has been given. After a six month period of this drug, we expect to have killed all heartworms of dogs and has had 100% effectiveness.

The problem here, as with most home administered treatments, is proper understanding. Please, please, do not give your dog any drug under supervision of the supervision and direction of a competent veterinarian, these drugs are strong stuff. If your dog has an average of heavy infection of heartworms, home treatment would undoubtedly kill the worms, but you would also probably kill your pet.

The Florida dog owner is fortunate in having a Florida Veterinarians Association, whose active interest has made it possible for the owner to administer the treatment at home after the correct dosage has been given. After a six month period of this drug, we expect to have killed all heartworms of dogs and has had 100% effectiveness.

The problem here, as with most home administered treatments, is proper understanding. Please, please, do not give your dog any drug under supervision of the supervision and direction of a competent veterinarian, these drugs are strong stuff. If your dog has an average of heavy infection of heartworms, home treatment would undoubtedly kill the worms, but you would also probably kill your pet.

Florida has a big role in the pioneer work on heartworms. This disease was generally unknown until about 1920. In 1923, Dr. A. T. Knowles founded the Knowles Animal Hospital in Miami. He immediately became interested in the research on heartworms. This interest has been furthered by his sons, Dr. Bob and Dr. Jack Knowles, who now follow in their father's footsteps. Dr. Bob Knowles demonstrated heartworm removal surgery on closed circuit TV in 1955 at the National Convention of the American Animal Hospital Association in Detroit.

To me, a very interesting and thought-provoking fact came to light in my heartworm research. In the early 1920's, Dr. A. T. Knowles collected dogs far gone with heartworms from the south Florida area and sent them north as laboratory animals, to be used in the research then going on attempting to find a cure or treatment for human elephantiasis. This is a classic example of the view that such animal use is justified only if absolutely necessary and performed in the most humane way possible. In the case of the heartworm infected dogs used for human research, their sacrifice has been largely beneficial to other dogs, because it was from these early experiments, sparked by human research, that the present preventive and curative methods were developed.

If you have stayed away from this, you have neared your Merit Badge as a dog lover. Nothing I have written in years has given me so much pleasure to do prescribed activity. If I reach even one dog owner who is encouraged to follow this advice, I'll feel as well as the dogs
t. They have, naturally and simply, most of the better qualities of character for which we humans still strive.

The message here is one of confidence and hope. These are things not usually associated with heartworms. If you are buying a pup, make sure he has been certified free of heartworms before the sale. When you take your pup to your vet for his regular puppy shots, discuss this heartworm piece with him. Choose one of the heartworm preventive measures now available. Set up a regular routine of check-ups and then stick to it. It's as simple as that.

If you have an older dog, the time to find out about heartworms is now. Don't put it off. Take your dog to your own and your dog's sake. If treatment or surgery is indicated, do it. Every day you wait lessens your dog's chances. Surgical removal of heartworms in badly infected dogs usually costs about $100. If your dog shows a clean blood smear, you can then start preventive measures that will keep your dog healthy.

Heartworm we still have, but the heartache we can avoid. Your nearest veterinarian is a heartworm expert. Everything I have discussed in this article is available to him through the Florida Veterinarians Association. Visit your veterinarian. Take your dog along. First find out if your dog is infected, then do something about it. Medical science and the determination of our Florida veterinarians have given dogs a new chance. Let's make the most of it.
To my surprise she showed no fear, none of the frantic struggling usual with captured birds, no wild heart-beat to the Cardinal when it comes to biting. Once he clamps down on your finger you almost need a pair of tongs to pay him loose.

Which reminds me of the time I was not bitten when I expected to be.

Two bow windows were shining all around the yard. One bird called so repeatedly from just off the front porch, I went out to check. A rustling in the bushes caused me to return suddenly as I came near and I stooped to pick the foliage. There lay a lovely little brown and rust Towhee. Fearing she might have been hurt, I picked her up and holding her gently I moved each wing and tail. Noted nothing to be injured, so I laid her on her back in my palm, and softly stroked her throat and breast.

A Familiarity with First A-Practices in the event of Accidents of various kinds is an asset to any individual. It is particularly important to the sportsman who hunts with a dog. In their eagerness, sporting dogs often take reckless chances and are frequently injured.

The leading cause of dog fatalities appears to arise from auto accidents. While no figures are available, it is safe to assume that a majority of dog fatalities are hunting dogs. Intently following a trail or scenting game, the dog is oblivious to the approach of speeding cars. If your dog is injured, the first thing to remember is that he must be approached and handled carefully for he is apt to become frantic and panicy. He may even bite if human help is offered. This is not because he is vicious, but because he is not capable of understanding his pain and feels that he must protect himself from further torment.

If your dog is hurt or hit by a car, get him to a veterinarian as soon as possible. Be very careful in moving him. This will allow you to examine him without his biting you. The muzzle can be improvised from a handkerchief, belt, a piece of strong cord or strips of cloth.

Any dog struck by a car needs professional attention quickly, so get him to a veterinarian as soon as possible. Be very careful in moving the dog. He may be carried in your arms if he is quiet, or you may use a blanket as a litter.

Another superstition handed down among the ancient early peoples. The feeling was the source of a wide variety of superstitious about dogs — and some of these superstitions are with us even today.

Perhaps the superstition that has the widest range in modern society is the belief that howling of a dog is a herald of death. It is a number of versions of this old persistent belief.

Two bow howls by a dog mean a man will die, three means a woman's life — dogs see coffins in the air when they howl — or they see the angel of death when they howl. All of these superstitions, of course, for death takes its toll regardless of dog howls.

A dog's howl may be caused by a number of things. Canine ears are very sensitive and high-pitched sounds, such as church bells, steam whistles and fire, police and ambulance sirens, often seem to bring an immediate dogly response.

"Howling at the moon" is a common expression and dogs do seem to howl more often when the moon is full. They are very sensitive to the passage of the moon, and the rising of the moon seems to bring an eerie howl of a dog.

Some people believe that if a dog's coat suddenly has an odor it is going to rain, and if his nose is moist or dry, that will be his signal of whether the weather will change. Some people believe that if a dog's coat suddenly has an odor it is going to rain, and if his nose is moist or dry, that will be his signal of whether the weather will change.

Another superstition handed down through the ages about dogs concern their ability to foretell future events or conditions. Some people believe that if a dog rolls in the snow or eats grass that had weather is approaching — that if a dog's coat suddenly has an odor it is going to rain, and if his nose is moist or dry, that will be his signal of whether the weather will change.

Researchers into ancient human behavior have learned that some people, in every section of the world where man and dog have been associated, have been superstitious about dogs ever since and have practiced some form of worship. Because the dog was man's first protection, many groups of primitive people have used the dog as a sacrificial device to drive away fears or imaginary evils.

Yes, the ancient superstitions seem to linger. And they are all interesting — provided you remember that they are only superstitions.

Howling, or baying, at the moon, almost a ritual in Harper's Ferry, Iowa, according to George Kaufman, veteran conservation officer of the Hawkeye State.

A famous local hunter had bought a courthouse and had proclaimed it the finest dog in that part of the state. One night he and some friends went south of Harper's Ferry to run the dog in the thick bottomland timber along the Mississippi.

When the time came to leave, the dog whistled for his dog. It didn't come. So the hunter—huge man with a ringing, stentorian voice — began calling the dog. Far in the distance the men heard a baying answering.

"That's him," the owner said. "I'd know that tongue anywhere."

"You sure?" his friend asked.

"Dead sure," he replied. "You think I don't know my own hound?"

For over a mile along the dense underbrush, the hunting party fought its way north. They followed the distant sounds into the outskirts of Harper's Ferry and found the "hounds." Only the dog turned out to be a well-known Harper's Ferry resident, happily leaning against a light post, and the combined efforts of the entire party to keep the enraged dog owner from committing mayhem.
The only way it can be done now is by installing extra mirrors at strategic points. Points is plural. As a matter of fact, you almost need periscopes to see your way around all the extra obstacles such as fins that car manufacturers have developed to obscure our vision.

My particular car happened to have a rear-view mirror mounted just above the dashboard. A mirror in that position is a worthless nuisance, with or without a boat. I found that small foreign cars became invisible when they moved in close behind. If anyone was sitting in the center of the seat, any mirror mounted from the visors, that would exist over both the left and right shoulders. These provide a short-range view of traffic coming up behind. They may have impressed the stylist as a cute attraction but to the guy towing a trailer they're an extra road hazard. And the equipment car with mirrors so placed they serve a real safety purpose instead of merely being convenient for mildy in applying lip-stick.

To these, we think there'll be a fervent "amen" from most of the estimated 40,000 boating enthusiasts who ride around in cars that haul the bulk of our 8,000,000 small-craft on boat trailers.

Example of boating club enter prise:
Jacksonville’s Outboard Sport Fishing Club, a group of enthusiastic saltwater anglers organized slightly more than a year ago, this spring completed an artificial reef some eight miles offshore from the mouth of the St. Johns River. It covers legal requirements, Coast Guard regulations, safe water skiing tips, storm warnings and similar information.

Is your motor acting sluggish, if the gas line were clogged? Bill Smale, service director of Rivnude, says fuel tanks which accumulate varnish from a long-standing gasoline-oil mix may be causing the trouble. Clean with a lacquer thinner. If possible to remove the filler cap and reach into the interior, scrub with thinner and a mesh-wire cleaner. If your tank was drained and emptied for a spell, it probably has rusted on the interior—so a scrubbing and cleaning is in order, anyway. Seems that no matter what you did with the tank during use, your better clean it up well.

By DON CULLIMORE

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To these, we think there’ll be a fervent "amen" from most of the estimated 40,000 boating enthusiasts who ride around in cars that haul the bulk of our 8,000,000 small-craft on boat trailers.

Example of boating club enter prise:
Jacksonville’s Outboard Sport Fishing Club, a group of enthusiastic saltwater anglers organized slightly more than a year ago, this spring completed an artificial reef some eight miles offshore from the mouth of the St. Johns River. It covers legal requirements, Coast Guard regulations, safe water skiing tips, storm warnings and similar information.

Is your motor acting sluggish, if the gas line were clogged? Bill Smale, service director of Rivnude, says fuel tanks which accumulate varnish from a long-standing gasoline-oil mix may be causing the trouble. Clean with a lacquer thinner. If possible to remove the filler cap and reach into the interior, scrub with thinner and a mesh-wire cleaner. If your tank was drained and emptied for a spell, it probably has rusted on the interior—so a scrubbing and cleaning is in order, anyway. Seems that no matter what you did with the tank during use, your better clean it up well.
FISHING
(Continued from Page 11)

Owen in the Wilderness. This has been published by the Stackpole Company, Harrisburg Pa. It costs $5.00. This book, also, was written in your public library. Nothing is left to chance in this truly monumental work. The book tells you how to equip yourself and then how to live safely and comfortably in the woods individually.

How about packs, tents, sleeping bags, cooking utensils, hunting knife, and ammunition? How about clothes, shoes, saddles and pack horse, cameras and portages, and the compass? This book tells all about these and much, much more. What's even more important, all the items recommended at best are fully dis- banded, and a listing of suppliers is given where these things may be purchased.

Nothing about wilderness travel has been skipped, ignored, or left to chance in "On Your Own in the Wilderness." I would judge that the two books mentioned here are perfect companions for the person, family or people who wants to take a camping vacation on their own at little expense.

So—I hope you have a wonderful vacation, hope all the days are bright, all the fish bite, and every prospect pleases. If you hike around high lakes of the Rockies out in the Guntnisen, and if you see an angler fly fishing some pool behind a beaver dam on a mountain stream, it could be me. At least I hope so.

FLORIDA WILDLIFE

RESEARCH DEER HERD
(Continued from Page 29)

agreed to furnish him with young deer that were confiscated each year, in addition to any other deer that could be obtained.

Sapphire was one of the first arrivals in Gainesville. Her blood tested positive, although she had been shot. The deer had died at birth, making her a desirable amimal for the tests. She was also very tame which is a prerequisite to handling. Deer could be examined.

Dr. Pritchard and his co-workers constructed a compound and divided it into large, individual pens. Shelter, automatic drinking fountains, and control feeders were installed. The compound was so designed that by opening and closing gates, handlers could move deer any place in the enclosure.

Matt Whisenhunt was called upon again, this time to make a chute that would hold the animals secure for examination. Even tame deer will alarm deer hunters. The "Sportmote" pliers make a convenient wire and hook cutter; wrench; pocket vise; hook disgorger; hook, noil and pincer; "V" slot runs their length for gripping tackle boxes and broken dip nets can be quickly and easily returned to the game. The pliers alone, or in combination with the companion knife.

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Dr. Pritchard believes he will be able to complete his study by then, and also have additional knowledge of deer diseases and how to cope with them.

This study has just begun, certain conclusions have been reached. They are:

1. This particular abnormal cell development that caused the study to be made is similar to certain blood disorders in human persons.

2. Deer affected by this condition could move deer any place in the enclosure.

The Division of Wildlife Management at the University of Florida is looking to advantage of the deer to test new disease conditions and a correlating body-angler development with various diets. At present, the herd is comprised of four does, two does and seven young males. The number should increase soon through new-born deer. Dr. Pritchard also plans to control breed this year, to trace their blood condition through several generations. The program is expected to continue for approximately 10 years.

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The final results of the study will tell us the cause of this and other deer diseases, the cures and other information which will be invaluable to the hunter in maintaining large deer herds throughout this and other states. The animal should be returned to the Game and, if possible, be fitted with the problems of the study, interfering the results of the study to wild animals in the field.

The Credible said this study was not meant to alarm deer hunters unnecessarily. "deaths and mortality, caused from diseases as well as guns, cars, dogs and other predators. After the 1980 year study is finished, the Florida Fish and Wildlife Commission will be returned to the Game and Fresh Water Fish Commission for place- ment in desirable locations throughout the state. Florida is again making another contribution to wise Wildlife Management through research.
By CHUCK SCHILLING

Address questions on fishing and boating to Question Box, FLORIDA WILDLIFE, Tallahassee, Fla.

Question: I know this is not in your line, but you have answered many other questions, I thought I’d try you on a dog. I am being a terrible time keeping my dog free of ticks. For all the usual preparations to no avail. What can I do now? Barbara Baluns, East Cape, Fla.

Answer: Many dog owners, including myself, have experienced the frustration of removing ticks through my veterinary, who supplied me with a wonderful preparation that works like magic on both ticks and fleas, without bringing objectionable in odor or application. There are actually two of these concentrates, one is Tix-Cide, and the other Tix-Tox. Both are available through your veterinarian. They really work.

Question: Where is the Miami area can I go to catch pickerels? Bill Wreck, Miami, Fla.

Answer: Most of the fresh-water canals and ponds in the Miami area should produce eastern chain pickerel. I’d suggest the Tamiami Canal as a starter. Pickerel are drift dwellers. Fish for them in thick vegetation, in levees, under the green turtle, and along the edges of the canals. I finally visited a man named Bill Wreck, who supplied me with a list of his own. I’ve read that you have to use pork rind as bait and don’t use fresh fish as bait. Instead, I’ll name two of personal knowledge that are outstanding. I’ll name them in my book.

Answer: I have read what you had to say about Floreo jigs but haven’t been able to find any. Can you help? J. Barrie, Greensboro, N. C.

Answer: Everett Williams, caretaker and manufacturer of the wonderful Floreo Jig, is located at 120 Avenue south, St. Petersburg, Fla. Williams pioneered in fine-diameter, crinkle nylon for jig skirts and has revolutionized thinking about jig skirts and how they work. I am always in the direction of the boat’s drift. This is also, usually in the direction the wind is blowing, making casting easier. Casting permits the fish to sink to the bottom quickly and stay down as you work it. If you are drifting at any but a small speed, casting behind the boat is mostly trolling. Jigs are usually most effective from a fast-moving boat.

Answer: I have recently seen a little fishing book written by you, entitled, “How to Fish Like an Expert.” I like it much and would like to get some copies for the boys in my son’s Scout Troop. Is this possible? J. Pershall, Key West, Fla.

Answer: For individual copies of this free Fishing Book, visit any U. S. Royal Tire store.

Answer: For additional books, intended for clubs, institutional, or camp use, write: Fishing Books, U. S. Rubber Co., Rocky Mountain Division, 12301 Somme, the American Museum, New York, N. Y.

Answer: A friend tells me that a froggery says that a frog is the best bait for big bass and the experts turn the worms inside out before using. I am not sure my leg? P. Carron, Punta Gorda, Fla.

Answer: He was not pulling your leg, but I doubt he’s a friend. They really do turn these worms inside out, and they really do catch big bass with them. Best Costume for the w commenced bit is a full parks with welder’s plastic face shield.

A similar experience many helping tobacco worms on a troutline in the Kentucky River, turned me from live bait permanently.

Question: I have read of many wonderful, light tackle fishing accomplishments that seem literally impossible to my inexperienced mind. What would you call a truly great catch? M. Eason, Marion, Ga.

Answer: There are so many incredible feats of light tackle angling, I hesitate to name one over another. Instead, I’ll name two of personal knowledge that are outstanding in any company. My friend, Jason Lucas, once took a 22-pound Atlantic salmon using a fly rod and No. 8 sewing thread. A stunt?—Sure, but what a stunt. You would have to try for these grand fish on regular tackle to appreciate this accomplishment.

Close to home, Howard Clark of Miami took an 87-pound tarpon on spinning tackle and 6-pound test monofilament. Clark hooked this fish from a boat on the seashore side of Government Cut on Miami Beach and eventually landed the monster in deep water. This rates close to the all-time high in my book.

Question: I plan to take my family on a touring-camping trip through several states this summer. Are there any maps or books available that show the location of campgrounds in the southeast? G. Fullard, Key West, Fla.

Answer: I know of none pertaining to this particular state, with camp ground locations marked. But there are books available that show the location of campgrounds in all states. This guide has maps for each state, with camp ground locations marked. “Test Flap” recommends it highly. The price is $2.00. Write to Alec Gibson, The Camp Store, 225 Alacaz Ave., Coral Gables, Fla.

Question: I have heard of a new preparation on the market said to practically eliminate water friction on boat bottoms. Do you have any information on this, and where can I get some? F. Adams, Weider Haven, Fla.

Answer: I have read of some experiments now being made to produce material. These were inspired by observations of the eel, which produces glue through the water. Porpoise skin does appear to have tremendous friction-reducing qualities. There are a few rubber-based, liquid coatings now being so used experimentally. I don’t think any are available to the public as yet.

Question: I always admire seeing pretty girls but have been unable to find any. Can you help? J. Barrie, Greensboro, N. C.

Answer: Everett Williams, caretaker and manufacturer of the wonderful Floreo Jig, is located at 120 Avenue south, St. Petersburg, Fla. Williams pioneered in fine-diameter, crinkle nylon for jig skirts and has revolutionized thinking about skirt material for many anglers, including myself. I like any color just so it’s yellow.

Question: I always admire seeing pretty girls in fishing magazines, but you failed to mention the name or the one holding the cutlass herring in the March issue. Why did the girls? W. H. Taylor, Plant City, Fla.

Answer: It didn’t occur to me that anyone would notice the girl in the picture with that beautiful fish. It does occur to me that if you paid more attention to the
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