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August 1961

V. 15 No. 3

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Florida Fish and Wildlife Conservation Commission
**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. Citation, 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.

**APPLICATION FOR FLORIDA WILDLIFE FISHING CITATION**

The Editor, FLORIDA WILDLIFE Game & Fresh Water Fish Commission, Tallahassee, Fla.

Please send me the Florida Wildlife Fishing Citation with the inscribed data listed below:

Name (please print) _______________________
Address __________ City ______ State, ___

Listed below:

The Editor, FLORIDA WILDLIFE Magazine, and their immediate families, who catch any of the fresh-water game fish of the prescribed species and size requirements. Citation, 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.

<table>
<thead>
<tr>
<th>SPECIES</th>
<th>ELIGIBILITY REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LARGEMOUTH BASS</td>
<td>8 pounds or larger</td>
</tr>
<tr>
<td>CHAIN PICKEREL</td>
<td>4 pounds or larger</td>
</tr>
<tr>
<td>BLUEGILL (BREAM)</td>
<td>1 1/2 pounds or larger</td>
</tr>
<tr>
<td>SHELLCRACKER</td>
<td>2 pounds or larger</td>
</tr>
<tr>
<td>BLACK CRAPPIE</td>
<td>2 pounds or larger</td>
</tr>
<tr>
<td>RED BREAST</td>
<td>1 pound or larger</td>
</tr>
</tbody>
</table>

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 fishing 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.

**ELIGIBILITY REQUIREMENTS**

<table>
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<tr>
<th>SPECIES</th>
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Florida Wildlife is published monthly by the Florida Game and Fresh Water Fish Commission, Tallahassee, Fla. The Editor reserves the right to reject unsolicited materials. All information contained herein is copyrighted and may be reproduced only in connection with Florida Wildlife without permission. For reprints, write the Florida Game and Fresh Water Fish Commission, Tallahassee, Fla.
Crusade Against Illegal Fishing Practices Is Launched

The Game and Fresh Water Fish Commission has launched an all-out crusade to rid the rivers of Northwest Florida of illegal fishing devices, according to Matt Whihenbunt, regional manager for the Commission in Northwest Florida.

Whihenbunt said, "The major problem in Northwest Florida is the Palachalica River where recent checks have found many illegal fishing baskets and other devices." A County Court Jury of Calhoun County recently found one person guilty of operating illegal fishing devices and County Judge Sidney Parrish fined him $300.00, forthwith setting wire traps in the Palachalica River. The officers confiscated some 25 fishing baskets from him.

Charges were recently filed against persons at certain fish camps on the Apalachalica River for the selling of game fish. These cases are pending court action in Liberty County.

"Sportsmen should consider it their duty to report such violations as illegal fishing devices in the rivers, or the selling of game fish, to the Game and Fresh Water Fish Commission. All the rivers and lakes of Florida belong to ALL the people of Florida and not to a very few who would use our game fish for Performal gain," Whihenbunt said. ■

Keep America Beautiful

Keep America Beautiful, Inc. reports that $50 million in tax funds are spent each year to clean litter from primary highways. The U. S. Forest Service budgeted $3 million last year for cleaning up national forests. Litter-caused fires amount to $50 million annually. And, human bodies are also lost and 1,000 Americans are killed and 100,000 seriously injured annually as a result of cars striking or swerving to avoid hitting articles thrown on the road.

Industrial Wastes Kill Off Fish

More fish are reported killed by industrial wastes than by other pollutants, according to reports of the Public Health Service's Division of Water Supply and Pollution Control.

Alligator Protection Sought By Advisory Council

A recommendation to protect alligators in Northwest Florida has been approved by the Game and Fresh Water Fish Commission from the Northwest Regional Conservation Advisory Council. According to the alligator population is very low and alligators are needed to curb the invasion of nutria into the region.

Nutria, which are now appearing in Northwest Florida, are large South American rodents that weigh up to 25 pounds. They are very detrimental to marshes and agricultural crops. Authorities have stated that nutria can leave land as barren as a forest fire.

Texas and Louisiana have had a problem with this fast reproducing rodent for the past few years and in places, they have completely ruined excellent hunting and fishing areas in these states.

The Council learned that large alligators are the natural enemies of nutria and are being used by Texas and Louisiana as a biological control over these vegetation eating rodents.

The protection of alligators in Northwest Florida is expected to provide a barrier or at least some impediment to the spread of these harmful rodents.

The Northwest Regional Conservation Advisory Council was organized in 1960 and is composed of responsible citizens of Northwest Florida who are interested in the furthering of conservation. ■

The summer fishing season—now enjoyed by millions throughout the state, from Pensacola to Key West—Facts About Florida Fishing, see Page-22. The first of a three part report on Southeast Florida Fishing starts on Page-11

Cove, Photo By Florida State News Bureau

FLORIDA WILDLIFE

The Florida gun safety program is under the direction of Jim Reed, information extension officer of the Game and Fresh Water Fish Commission.

At Live Oak, Suwannee County Sheriff Hugh Lewis has organized a Boys Official Rifle School for boys 10 through 15 years of age.

Like most people who have started such a program, Lewis found a lot of people ready to pitch in and help.

A recent article in the Florida Times-Union of Jacksonville stated that a rock and roll band had given the sheriff permission to use four acres of land near the city, that other donors gave log, targets and even cases so that the range was ready for use a month after the plan was introduced.

The Live Oak setup permits five persons to shoot at one time and a 18-foot-high log barricade, backed up by sand, provides a safe background for targets. Twenty-two caliber rifles will be used. The annual cost figured for operation of the school—$50.

One of the things that makes such programs successful is interest to law enforcement. Enforcement safety education is usually a part of the training program and that a supervised target range takes a lot of pressure off mailboxes, street lights and other ambulatory targets.

As a community program, youth marksmanship gets plenty of sport, largely because gun lovers are nearly always anxious to make converts to their sport and the safety record of supervised ranges is just about perfect.

Another recent development in gun safety education is the constant dumping of refuse and the emptying of open sewers into the big river may be stopped as the result of passage of a "Save the Suwannee River Bondage Proposition" last year.

If it is a $75 million bond issue.

The outboard club was in on the ground floor when the first pollution hearings were held. The U. S. Public Health Service was taking a hand in 1957 and the club's commor- de testified at those conferences.

To support the bond issue for river cleanup, HARC purchased its own volunteer campaign. They issued a firm resolution backing the bonds and then set up a telephone number which made some 1,000 calls to key people. Then the public was invited to a special club meeting on the subject, the club stated that the decision was made and an election day approached, the members delivered information pamphlets from door to door in an effort to win the support of local Women Voters and the Chamber of Commerce provided the materials. So now they're going to clean up the Mississippi and maybe the San Francisco Bay.
Fishing

Hey, the weather means that bass fishing is better in early morning, late evening and at night. Fishermen are inclined to agree about the morning and evening feeding periods but they remain in wholehearted disagreement about what happens when the night shift goes on.

One old-timer will look you squarely in the eye and say that "when the moon comes up, the fish go down" and you might as well go home. Another will patiently explain to you that daytime fishing during the full moon period is a waste of time because the fish "feed all night by moonlight." It has been my experience that fishing is seldom very good during the first couple of hours after nightfall—moon or no moon—unless there is a flurry of activity just at dusk which stops shortly afterward. I think most disappointed night fishermen give up after a few tries during the early part of the night. Things get pretty sleepy for most of us around midnight.

The fact remains that night feeding periods may occur after the first quarter of hours after nightfall and the most popular time for use at night. It has the advantage of being all the water of all the time and the fishermen doesn't have to worry about tangled lines or breakage. I don't know much about shiner fishing at night. It's done but isn't a common practice.

Although I've often read that spinning gear is best of all for night fishing, I'm a little skeptical. If you DO get a tangle with spinning line at night, it will be a real prize-winner because a sixty-pound test line will be the accepted tool for straightening it out. Baitcasting tackle is almost as bad unless you put a little extra tension on the spool to avoid backlashes. Most baitcasters thumb partly by sight as their accuracy of the other methods, most of the ones I've known I don't fish close to the water all of the time and the fishermen doesn't have to worry about tangled lines or breakage. I don't know much about shiner fishing at night. It's done but isn't a common practice.

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Field & Stream Winners

Although there are a lot of flat statements made in the tackle emporiums and barbershops, the annu- Field & Stream contest is routine with most of the ones I've known were encouragingly concentrated, it ain't as bad as the situation with some "foreign" kinds of fish. Now you can get a rainbow fly casting division. All of the first ten except the first place winner from Duck Lake, Montana, which contains the greenest water in the world. I have fished there but was never warm enough to cast very well. My line kept freezing. Duck Lake is located where a chilly finger of Canada points right down into the U.S.

The first place winner in that class weighed 13 pounds, 12-ounces and came from Titusville. All of the other winners, as usual, came from the east coast, the biggest being a 13-pound, 7-ounce from Titusville. All of the other winners came from the same area as the world's highest priced among Cocos, Canaverol Harbor, Melbourne and Jensen Beach.

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UNQUESTIONABLY, and undisputedly, just plain luck accounts for many deer kills. One man may hunt for weeks without getting a shot, another, hunting in the very same territory, may kill his buck soon after leaving his parked car on his first day out. Deer hunting, no matter how approached, is something of a gamble—with the odds usually favoring the deer.

However, I am strongly convinced that advance preparation tends to balance hunting odds more equally, come hunting season.

Consider that the average deer seen is invariably a moving target, and is usually a clear target for only about three seconds—very seldom more than five seconds—of the time he is in the immediate vicinity of the hunter.

During this short period, a skilled shooter can easily fire one or more killing shots: the man who does his hunting without pre-season gun handling practice, on the other hand, will often see his target disappear into the brush or over a hill before he can get into action. There’s a whole of difference between the two performances, as any professional guide can tell you.

In deer hunting, fit of the gun used has great influence on the hunter’s ability to make fast shots, especially so if his weapon is a shotgun. When shouldered, the shooter’s aiming eye, the gun’s sights and the target should be in common alignment, without much—if any—conscious effort on the part of the shooter.

The gun itself must come to shoulder almost effortlessly, smoothly, and the butt plate must hit the shoulder at the proper spot and angle, simultaneously with the comb of the stock’s contact with the shooter’s face.

Given good gun fit, fast, accurate shots can be made once only a matter of practice.

For rapid fire courses of range practice, the slide-actions, autoloaders and lever-actions have it all over bolt-actions for fast, successive shots.

Rifles like the Remington Model 72, Winchester 88, Remington 740, Winchester 94, Marlin 336, Savage 99 and J. C. Higgins Model 45 are especially good for fast placement of bullets on a moving target.

Where shooting conditions permit open field practice, a piece of thick, heavy, white cardboard can be wedged against the automobile and rolled down a bumpy hill or across rough ground, to provide practice at a moving target. Such practice can be very educational, for, as actual deer running, you’ll either hit or you won’t. The results will be immediately obvious.

Most hunters, however, seem to prefer to shoot at a simulated running deer target, judging by the letters that have come to me, and the telephone calls relative to the subject.

Individuals, as well as clubs, want to know how to assemble and operate such a target. They also want to know sources of supply for running deer target figures.

There are various ways of rigging a running deer target—both simple and complex. The former usually embody a target frame and pulley system that roll down an inclined wire as a single working unit, or utilize the applied power of a simple bicycle wheel mechanism. The more complex versions are either electricity operated, or else bounce a four wheel platform car down a bumpy, double-track for 150 feet, starting from an eight foot incline and ending up at the 2 foot level.

If you are interested in assembling a running deer target, for either gun hunting or bowhunting practice, then I suggest you send 50¢ to the National Rifle Association, 1600 Rhode Island Avenue, N.W., Washington 6, D.C., for its 12-page pink paper, illustrated folder titled "Running Deer Ranges." Several different operating systems, with instructions for assembly, are included in the printing.

As for ready-made deer target figures, you can obtain them, pictured as running either to the left or to the right, from Stoeger Arms Company, 45-18 Court Square, Long Island City, New York. They come in sets—one of each facing style—at $1.50 per set. Additional single target faces are 50¢ each.

The target should have a very life-like running deer pose, lithographed in natural colors and marked with kill zones. If you prefer to shoot at a simulated running deer target, when using a big-game rifle? Assuming that target speed is approximately 22½ feet per second, and the range either 100 yards or 100 metres, most of the Olympic shooters using single post front sights place the appropriate corner of the post, depending on the deer target’s direction of movement, on the nape of the animal’s neck, with the top of the front sight level with the animal’s backbone. Resultant bullet impact is usually in a killing area and some ten inches to one side of point of aim at moment of firing.

Practical practice range setups are those that cause the deer target to appear briefly in clear areas between shot-deflecting obstructions, run on a bumpy, erratic course, and vary in speed from one "run" to another. Some clubs even use auxiliary figures of a running man, which the range operator may substitute at will, to test the hunting safety reaction factor of individual shooters.

In brief, if the man-figure should appear without warning you would not shoot. Conversely, under some agreed upon scoring system, you could be penalized, or rewarded by companions, if you made the impulsive mistake of shooting at the suddenly appearing running man instead of the expected deer figure.

How much lead does one give a running deer target, when using a big-game rifle? Running deer target practice and tournament competition have long been popular in Europe, and especially so in the Scandinavian countries, as well as a phase of the Olympics.

In this country, however, the sport, and the connected value of such practice as preparation for big-game hunting, has been largely overlooked. A few of the National and Regional rifle tournaments have regularly included running deer target shooting as part of their programs, and some clubs already have such range setups, but the majority of U.S. shooting clubs do not as yet have running deer target ranges.

Local clubs that now operate or plan to put in running deer target ranges can do big-game hunting sportsmen a real favor by publicizing the availability of such practice, and at the same time make a little extra club money by periodically staging running deer competitive shoots, open to all and strictly supervised by range-trained club members.

As matters now stand, the majority of deer hunters have few opportunities to practice on moving targets with their big-game rifles between hunting seasons. Many new expert assistance in properly sighting in their rifles, to obtain the most practical bullet trajectory over average hunting ranges.

The special sighting-in Days ob (Continued on Page 27)
These Things We Believe

We believe in boys and girls, not some of them but all of them.

****We believe in their right to an understanding of their own place in the nature community of which they are a part.****

We believe in their right to acquire skills and the tools for living in the out-of-doors as part of their heritage as descendants of pioneers, to swim, to fish, to manage a canoe, to climb, to build, to cook, to worship.

****We believe in their right of discovery and adventure in nature's world, their right to pit their strength against the barriers nature erects and the mysteries she presents and in their right to a sense of achievement.****

****We believe in their right to fun, and to a creative expression of themselves in handicrafts, in music and in drama.****

****We believe in their right to friendly comradeship with someone older, likewise an adventure in the out-of-doors.****

We believe in their need of the healing found in the wild, wide and open spaces. We believe in their unfolding response to the warm earth, the friendly stars, the music of streams, the unknown life in the hidden places, great trees, sunsets and storms.

****We believe that all these are pathways for the, and for us, to God, and that their language is universal.****

By the way, the American Camping Association is interested in the idea of creating a Family Camping Federation.

A Special Message

In the mail recently we received a newsletter from the American Camping Association. Within its contents appeared a copy of the final part of an inspirational program at the close of the Region IV Convention in Gatlinburg, Tennessee this past March. I am certain you will think about this long after you have read it. Here it is.

- Florida State Museum, University of Florida
- Central Florida Museum of Orlando
- Florida Game and Fresh Water Fish Commission

Our staff of counselors this year has been the largest since the beginning two years ago. A total of 25 served the campers' eight weeks with fun, laughter and an abundance of enthusiasm.

-Camp Counselors

I take time here to list our staff and to pay tribute to a group of men and women who gave of themselves more than was required. My thanks and those of the Game Commission are extended to these loyal and wonderful people:

Gordon Kreible, Director; Richard Paine, Assistant Director; Bula Hewitt, Dietitian; George Nelson, Waterfront Director; Annie Lee Doudy, Second Cook; Louise Holman, Third Cook; Mable Miller, Counselor; Carrie Glidewell, Counselor; Lynn Herbert, Counselor; Joyce Henderson, Counselor; Peggy Farani, Counselor; Judy Swett, Counselor; Julie Hays, Counselor; Sandra Huber, Counselor; Daphne Evans, Counselor; John Street, Counselor; Charles Wilson, Counselor; Duane French, Counselor; Ray Anderson, Counselor; Manual Cepeda, Counselor; Frank Mustin, Counselor; Virginia Gill, Registered Nurse; George Miller, Utility.

-Special Message

* * * *

By Lake and Stream Survey Team No. 2

A Survey Report by Federal Aid Project F-G-R, A Dingell-Johnson Project Florida Game and Fresh Water Fish Commission Fisheries Division

FLORIDA WILDLIFE

AUGUST, 1961
A Report By
Lake and Stream Survey
Team No. 2
KEITH BYRD, Project Leader
FRANK ARRANDALE, Ass’t. Proj. Leader
PHILIP HESTER, Fishery Biologist
GENE SMITH, Fish Mgt. Specialist
RUTH LEE, Project Secretary

Southwest Florida
FISH and FISHING

The Florida Lake and Stream Survey was initiated by the Florida Game and Fish Commission, Fish Management Division, on July 1, 1954. This project is a cooperative federal-aid-state study, and is financed through the provisions of the Dingell-Johnson Act.

The purpose of the Survey is to inventory the lakes and streams of importance that are open to public use; to obtain basic physical and biological information concerning them; to evaluate the fisheries they contain; and to type of fish, their abundance, and the quantity and quality of fishing provided; to determine the importance of the individual body of water on the state and local level; and to formulate management plans.

Most important, when the Survey is completed, the Game and Fresh Water Fish Commission will, for the first time, have basic statewide information of the very important inland fisheries of Florida. With this data, the formulation of policies and procedures for the proper utilization and conservation of the fresh water fisheries may have a more substantial basis from the standpoint of long range and statewide fishery management.

The need for the Survey is clear. Any business manager of any company has at his fingertips an annual or even monthly inventory of what stocks or materials his plant has on hand. He knows what his production figures are, including the last piece of goods manufactured. He has a fairly accurate idea of what the market conditions are now, and what they will probably be in the future. More important, the business manager is keenly aware of any problems his business may have in the production and marketing of the company product, and is constantly improving and expanding his management procedures to meet changing conditions. Without the basic information to manage correctly, either the business manager or his company is soon defunct.

The Florida Game and Fresh Water Fish Commission, charged with the responsibility of managing one of the state’s most important resources —her fresh water fisheries —has never had a complete inventory of the lakes and streams that supply the fishing. No one knows the number of lakes in the state open to public fishing, much less the amount and kinds of fish present, or the production, or fishing pressure. Due to a lack of funds, and numerous and important immediate problems that had to be resolved, such fact gathering had to be delayed until the present. It is hoped that the information gained from this Survey will assist the administrators and technicians so that Florida may continue to provide top-notch fishing for her residents and the nation for many years to come.

This Survey has several limitations, as all such projects must. Only those lakes open to the public and over 150 acres in size will normally be surveyed. It would be obviously impossible to include all of Florida’s lakes in the time allocated to the study. The 150-acre limitation was used because generally, but not always, lakes over this size are public waters while those of lesser size frequently are not. For much the same reason, only the more important and larger rivers will be studied.

Secondly, the Survey is by no means a comprehensive study of any individual lake or stream. Bodies of water are complex and individual units which require years of study to acquire all the facts and answers, rather than the short periods that they are investigated by this project. Some information may have been overlooked, and some of the findings possibly in error. Enough basic information has been collected, however, to provide the blueprint for future management.

It should be emphasized that the Lake and Stream Survey is a research unit, and not a management arm, of the Commission. In other words, this project at-tempts to obtain the facts, and make recommendations based on them. With the publication of this report, and the filing of much more detailed data in the Tallahassee office, the work of the Survey in Southwest Florida is completed. The recommendations contained herein will be considered and put into effect, as time and funds permit, by other branches of the Fisheries Division.

About This Report
This report is designed to provide:
1. A capsule summary of the Survey findings in this area for the use of Commission members and interested sportsmen.
2. A semi-official guide to the fishing and accommodations for fishermen in the area surveyed.

Similar reports will be published about the fish and fishing in other areas as the Survey progresses.

Lake Osborne
The well-developed park facilities, residential areas, and shoreline roads around Lake Osborne, have made it a very popular water recreation lake especially attractive to week-end boating and picnicking parties.

Located in Palm Beach County, near the city of Lake Worth, this lake offers some fine fishing which is being taken advantage of by a limited number of fishermen.

The slack fishing pressure on Lake Osborne is due, in most likelihood, to the numerous boaters and water-skiers using the lake rather than to a lack of fish to be caught.

Findings of the survey team indicate a good popu-

(Continued on Next Page)

Lake Worth angler George P. Doris hauls in a nice speckled perch (Coryphaena striata) while fishing on Lake Osborne.

FLORIDA WILDLIFE
AUGUST, 1961
Lake Osborne — located in Palm Beach County, is well stocked with largemouth bass, bluegill, and shellcracker. Early morning fishing around the lily pads appears to be a best bet for bass fishermen.

Lake Osborne

**Date of Survey**: May, 1969
**Area**: 273 acres.
**Location**: East central Palm Beach County at Lake Worth.

**Aquatic Vegetation**: Maiden cane, cattails, water hyacinth, yellow water lily.

**Game Fishes**

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<td>Abundant</td>
</tr>
<tr>
<td>Bluegill</td>
<td>Abundant</td>
</tr>
<tr>
<td>Warmouth</td>
<td>Abundant</td>
</tr>
<tr>
<td>Spotted sunfish (Stumpknocker)</td>
<td>Occasional</td>
</tr>
<tr>
<td>Redear Sunfish (Shellcracker)</td>
<td>Common</td>
</tr>
</tbody>
</table>

**Other Fishes**

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Relative Abundance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Cat</td>
<td>Occasional</td>
</tr>
<tr>
<td>Brown Bullhead (Speckled Cat)</td>
<td>Occasional</td>
</tr>
<tr>
<td>Gizzard Shad</td>
<td>Abundant</td>
</tr>
<tr>
<td>Spotted Gar</td>
<td>Occasional</td>
</tr>
<tr>
<td>Eastern Chubsucker</td>
<td>Occasional</td>
</tr>
</tbody>
</table>

**Fishing History**: Good.

Fishing Methods: Bream are caught usually by cane pole method, with worms and crickets for bait; also by fly or spinning method using artificial flies.

Bass are caught on live minnows and a variety of artificial lures, a favorite of which seems to be the plastic worms of current popularity.

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**Recommendations**: Lake Osborne has excellent potential as a long-range fishing lake for area residents. It has been recommended for adequate fish management practices when at any time in the future such practices seem necessary.

**Accessibility and Availability**: Excellent. Four county parks, each with a boat ramp, provide abundant parking, picnic tables, charcoal pits, disposal facilities, etc.

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When I first heard skin-diving friends in group conversation mention “Frank, the frog man,” I surmised that they were referring to one of their own kind.

I later learned I was wrong; that they were speaking of a professional frog hunter, one Frank Broadhurst of Pinellas Park, Florida. Broadhurst, I found out, belongs to that unique group of professional froggers who annually “harvest” more than a million dollars—wholesale value—worth of Florida frog legs for the commercial market.

In former days Frank supervised fishing那个人的生活和工作。 这篇报道详细描述了弗兰克及其团队在佛罗里达溪流中进行蛙类捕捉活动的场景，包括捕捉方法、工具和所处环境。文章还提到弗兰克和其他蛙类猎手们对捕捉活动的热爱和技巧。此外，文章还涉及了蛙类的市场销售和市场需求，展现了这项活动的经济价值。

At five to ten miles per hour Broadhurst bore down on frog tunnels like a Bengal tiger. His seldom missed.

Gigging frogs takes skill. It's even harder when working from a moving boat and a high seat position.

By EDMOND McLARIN

FROG MAN

Marsh and Vero Beach and Arcadia, especially, is considered by professionals as being Florida’s “golden” frogging section.

An ideal frog hunting night, as froggers regard conditions, is a hot, windless, humid, “buggy” night, when mosquitoes and other insect species are noticeably plentiful and the moon is in first quarter stage. A bad night is one characterized by rain, wind and cold, singly or in combination. Judging by the heat, the stillness and the hordes of insects enveloping us, we had evidently chosen “a good night.”

The Withlacoochee River section where Broadhurst hunts frogs is a bird-watcher’s paradise. Populating the islands and prairies that dot the river’s winding course are countless thousands of birds of many different species.

Snakes and turtles of all sizes are also abundant. Turtles pop heads intermittently above water in almost any direction you look, and you generally don’t travel far without seeing either poisonous water moccasins or harmless water snakes.

It is also a section of the Withlacoochee River I can personally recommend to an entomologist as likely to be his long-sought Shangri-La! As the airboat leaped impatiently and noisily through the gathering darkness, roaring under full throttle, night-flying insects pelted my face and ears like Northern-state sleds!

Warily, I kept my mouth shut and made no attempt to talk.

And noisily through the gathering darkness, roaring under full throttle, night-flying insects pelted my face and ears like Northern-state sleds!

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Frank was equally non-committal. Occasionally he brushed off some persistent insect not immediately caught in the draft of the propeller.

A few of the softer-bodied varieties smashed themselves against my glasses; I had to wipe the lenses frequently. During one of these necessary operations, a small, but “hot,” insect lodged in an eye and caused a few moments of intense discomfort.

Thereafter, I cleaned my glasses without removing them.

As the airboat leaped impatiently forward, my nose was assailed with the scent of something very familiar, yet hard to immediately identify as a river odor. Suddenly I realized that, incongruously, the river smelled like fresh-stacked hay. I mentioned it to Frank, and he said the odor was caused by the chemical used by the Game & Fresh Water Fish Commission to combat hyacinth growth.

Mostly, however, the wind created by our forward movement was fresh and sweet with the smell of lush river vegetation.

We cut the motor close to the west shore of a small bayou, and awaited the complete darkness before starting fogging operations.

Big, ghostly, moss-vested trees lined the shore, and from beneath these emanated an easily heard high-pitched hum.

“ Incredible as it may seem,” Frank explained, “that hum you hear is created by millions of flying mosquitos!”

(Continued on Next Page)

Photo By Edmund McLaurin

photo by Edmund McLaurin
bridge being temporarily used as a survey point by two large owls. They never moved as the airboat glided beneath their bridge-rail perch.

Another time, a big bass appeared in the light beam on our starboard side, and raced the boat for several yards.

“Say, look at that big water mocassin!” I exclaimed, pointing to a big specimen swimming in an area just inside the encompassing field of Frank’s headlight beam.

“He’s a big one, all right!” Frank confirmed when he centered the swimming reptile in the light-beam. “Get the oar and see if you can kill him.”

We didn’t have a firearm aboard, because Florida law prohibits anyone being in the woods or afloat at night in possession of light and gun, but we did have a sturdy aluminum oar. Frank swung the boat about sharply to put me closer to the big snake.

Suddenly, the ugly reptile decided to fight instead of continuing his on-course straightened-shank fishhooks way and bore down rapidly on the area of a fish.

I had only three seconds to grab the oar and swing it overhead like an axe. Luckily, my first blow connected, and the sharp edge of the oar severed the snake’s head cleanly.

Later, the body section measured out five feet, two inches.

As a night oar, Frank bagged at least a dozen frogs before he missed one.

Families of raccoons, foraging for frog legs with salt and pepper, he dipped and cracked the rest of his catch, Frank skinned and prepared their legs for the table by marinating the cleaned legs in salt water and sponging each leg sharply to put me closer to the big snake.

Selecting a few frogs from the night’s catch, Frank skinned and prepared their legs for table use within seconds.

He then dipped the frog saddles in lemon juice, and then in beaten egg. After sprinkling the film-coated legs with salt and pepper, he dipped each leg in cracker crumbs, made a meal that would have satisfied even the San Franciscan gourmet tastes of Paladin.

By midnight, when we decided to head back to camp, I estimated we had at least 250 frogs in two cloth bags.

Frank said catches averaged nine pair of frog legs per pound, although sometimes the frogs are so large and fat that it takes only two pair of legs to equal a pound.

With camping and cooking experience dating back to early boyhood, I consider myself a pretty good cook, but back at camp Frank put together a meal that would have satisfied even the San Franciscan gourmet.

When I finished eating and pushed back my chair, I was glad there were no scales around to check on my weight.

Previously, I had always prepared frog legs for the table by marinating the cleaned legs in salt water for 15 minutes, then draining off the water and sponging each leg dry.

On one memorable occasion, I rolled 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. Frying was done in a wire basket, in deep fat at 375 degrees F. The cooked legs were set on an absorbent paper towel and napkin, then placed in a package of undiluted dehydrated tomato soup. When placed on the table in an open dish, potato chips and crackers were used to scoop up desired amounts of the created “dip.” You’ve never tasted anything like it.

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Previously, I had always prepared frog legs for the table by marinating the cleaned legs in salt water for 15 minutes, then draining off the water and sponging each leg dry. Not until you tasted the real thing do you appreciate the real flavor of frog."
A bowling bowfin gives Kit all she can handle on light spinning gear.

The ugly Bowfin may not rate as a gamefish, but he is power packed and top sport on light tackle

FRESHWATER BRAWLER

As I thumbed my casting reel after a vicious underwater strike, I heard my partner's spinning reel drake whine beseechingly. We were in business, but I was too busy with my own foe to turn and watch them. We sought action. We had wanted some angling practice.

My black, limber casting line zinged through the water as my underwater foe headed for the brush-laden bank of the back country canal. I applied more pressure, but still he kept boring doggedly for cover, looking for something handy on which to snap my line. I increased the pressure on my casting reel. My thumb grew hot. More pressure, more heat. Then pow! The 15-pound line broke.

Cranking in the shattered line, I turned to watch Kit, whose limber spinning rod was vibrating in a tight U. She kept working to take up her slack as her finny opponent twisted and turned, keeping her drag singing. I saw the line slacken. He was headed towards the boat, probably to jump.

Good! I thought. She's got a lively bass. Her fish came out of the water in a violent, tail-dancing movement, paused momentarily in the air, and then fell back with a heavy splash. It was a fighting maneuver that would make any bass proud, only I knew now we weren't fighting bass. No, indeed, we'd encountered a killer pack of one of the toughest, meanest mudfish, more generally known as bowfins, and sometimes as dogfish, blackfish, grin-cat, lawyer, cypress trout, scaled drum, cottonfish, choupique, speckled ling, poisson de marais and Mr. Bowfin is adept at stealing baits, and not too easy to hook and land, for he has a hard mouth full of sharp, tiny teeth, capable of biting through ordinary spinning lines less than 15-pound test.

He gives unsuspecting bass fishermen a thrill, for he's found in bass waters, particularly in the south. However, you'll seldom find him in swift, clear water. Many southern waters are ideal for him for he prefers sluggish, black bottom waters, and in the canals which criss-cross parts of Florida—generally the result of some wildcat, real estate promotion, years ago—and in the swamps, he finds his haven. And in the same waters largemouth bass abound.

It leads to a mixed up situation. You never know when you'll encounter him. I'll never forget the action a school provided one spring day in the fabulous Tamiami Canal parallel ing U.S. 41 west of Miami, which produces prolific bass bags especially after two or three years of continued high waters in the Glades and Cypress.

Why we stopped at this place, I don't know. Mainly because it didn't show the marks of heavy fishing, although it had excellent cover. I flipped my plastic worm near a brush covered rock on the far shore, and zowie! Action! My slender spin rod bent, yet the fish didn't seem large. But it was a struggle for he was taking advantage of the heavy underwater grass. It was more like a dredging operation than angling. Bowfin, I thought, as he struggled, wagging a terrific, weed-aided fight. But I was wrong. He was a near pound and a half bass.

Umm, I thought. This place has possibilities. It had, but not for bass. He was the first, last and only one caught in the next 30 minutes. But in that interval I broke three lines, landed four bowfins, ranging up to six pounds, and lost another six after battles of various lengths.

The water was dropping in the area, and the bowfins were in killer packs. They were hitting anything that moved, live or dead, and hitting with vicious strikes that any angler enjoys.

Kit, who was just learning to fish, had wanted some angling practice. She got it. Broken tackle, lost lures and three bowfins on the bank.

"Do they always hit like this?" she said breathlessly, as she fought one, who succeeded in getting into the grass cover, and wouldn't budge, necessitating breaking off her 8-pound mono.

"Not always," I puzzled, between playing a vicious one, and trying to answer her question.

As my spinning rod arched into a tight U, I continued: "They do this when the water's getting low, and feed's hard to find. They're vicious now."

"Yeah," she laconically remarked, her brake squealing as she set the hook in another. "Vicious ain't the word."

The bowfins wore us out. Cast after cast, they scooted vigorously, and finally, after half an hour, we tired of feeding them plastic worms and repairing tackle, and went off to find a better bass hole. The bass undoubtedly were there, but when it comes to feeding, and a mudfish is hungry or angry, the bass find the menu lean indeed.

One reason I've noticed for the fighting ability of the bowfin is that you seldom hook one under a couple of pounds. Why don't I know? But you can almost bet you'll have at least a two-pounder arguing with you, if not larger. And how they'll argue!

The Game and Fresh Water Fish Commission of Florida which has (Continued on Page 37)

Bowfins are ugly characters, and keep tongues out of their mouths—these teeth are sharp.
**FACTS ABOUT FISH AND FISHING**

By RONALD G. HIGGINS

Information Extension Officer

**FLORIDA IS KNOWN THROUGHOUT the world as having some of the best warm-water fishing that can be obtained by an angler. The State has an estimated 30,000 fresh-water lakes, and 166 rivers and streams, plus countless miles of canals and watersheds. The State's 2,909,800 acres of fresh waters are filled with an abundance of fishes numbering 154 species.**

**What Kind Of Fish?**

Of the 154 species of fresh water fish found in Florida waters, 13 are considered game fish and have bag limits set on them. They are the black bass, white bass, chain pickerel or jack, bluegill, shellcracker, black crappie, red breast, warmouth, stumpknocker, flier, long ear, rock bass, dollar sunfish.

**What Are Bream?**

Bream (pronounced as "brim") is a term used in describing some members of the sunfish family, as well as describing the single species of bluegill bream. A few of the better known species classed under the general term of bream are bluegill, shellcracker, red breast and stumpknocker. These fishes are also called panfish or sunfish.

**Is There A Fishing Season?**

No. You can fish in Florida fresh waters 24 hours a day for 365 days a year.

**Why Not Close Fishing In Spawning Season?**

Fish are a water crop very much like a land crop, and if not harvested they will die and be wasted in a very short time. Sport fishermen should harvest them like any other crop. This is advantageous to both fishermen and fishing. Catching fish with hook-and-line during the spawning season does not harm the fish population of a lake. Hook-and-line fishing is actually an inefficient, and, therefore, sporting method of fishing. It is impossible to catch all the fish in any sizeable body of water through use of a hook-and-line.

**Is There A Size Limit?**

No. In Florida you can keep any size fish you catch. As will be shown, fish are very prolific and it is actually helpful to remove the smaller fish to allow the larger ones to grow. This keeps the fish population in balance.

For fresh water fishing literature, and Florida rules and regulations, write to: Information—Education Division, Florida Game and Fresh Water Fish Commission, Tallahassee, Florida.

**Florida Bluegills are prolific spawners.** They begin spawning when the water temperature reaches 60 degrees, although they start "mating out" a nest when the water temperature reaches 73 degrees. They can produce young as many as five times a year.

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(Continued on Next Page)

**Florida Wildlife**

AUGUST, 1961

23
What About Spawning Breeds?

Although bass are prolific spawners, they are outclassed by the smaller bluegill bream. Bass ordinarily spawn about once a year. They begin spawning about when the water temperature reaches 65 degrees and what the temperature reaches 70 degrees and remains there for 48 to 72 hours, the bass begin spawning. Bluegill, however, begin spawning at a temperature at 65 degrees and begin spawning when the temperature attains 80 degrees and remains there for 48 to 72 hours. The difference, however, is most striking in the fact that the same bluegill may spawn may and bring young off for next every six weeks. And the bluegill may spawn when it weighs one-half ounce or more, and there are records of spawning bluegills that were only five months old. Therefore, the total reproduction potential of a single bluegill far exceeds that of a single bass.

Should We Keep The “Little” Ones?

Yes. The previous examples of bass and bream show that fish have thousands of “little ones” every spawning season in Florida and if they're not caught or taken by some means, the lakes and streams will soon become over populated or out of balance and fish will begin to get smaller or die off from crowding and lack of food. You can compare the annual yield of fish in a lake to the same area of farm land. That is, food conditions and other determining factors are such that a small lake or pond might maintain a total of 100 pounds of fish. How this may be 100 pounds weighing one pound each, or it may be 1,000 fish weighing 0.1 pounds each. There is only so much food and space available in any certain lake or pond, and the total number of fish will share it in proportion to their number and size. When you remove some of the small ones, the proportionate amount of food per fish in the lake is increased, and the remaining fish will grow larger, faster.

How Does Nature Help?

Nature has its way of helping control the number of fishes in a body of water in the form of large carnivorous, or flesh-eating, fishes. Some of the carnivores found in Florida’s fresh waters are the largemouth bass, sometimes called “trout,” the garfish, the black bass, pickerel or jack, bowfin, and gizzard shad, which is classed as a term that applies to all free-floating microscopic organisms that are found in water. This group of fish includes small sunfishes, suckers, and miscellaneous minnows. Carnivorous fishes are those that feed mostly on other fish, particularly those of the forage group. The carnivorous fish have many spines, barbels, pickerel or jack, bowfin, and garfish.

What Are The Fast-Producing Fishes?

The types of fast producing fish that are most often found to be overpopulated in a Florida lake or stream are bluegills and the gizzard shad, which is classed as an undesirable or rough fish. Bluegills have been known to spawn as many as five times in a year, and may have 10,000 eggs in each nest. Gizzard shad don’t have nests, but are even more prolific than bluegills.

How Is A Fish Population Determined?

The fisheries biologist may first use a minnow seine around the edges of a lake to determine whether or not the fish population is reproducing. The number and age of the small fish taken gives the answer. Then a larger seine, or gill and trammel nets, are employed to obtain a sample of the sub-adult and adult fish population. Certain fish killing chemicals are then used at various spots throughout the lake to obtain additional samples.

Electrical shocking devices are sometimes used in the sampling of larger lakes. By this method, fish may be studied and returned to the water without injury. After all sampling has been completed, the following data has been compiled—species present, percentage composition of each species in relation to total population, lengths and weights of each species, and information as to reproduction.

Interpretation of this data reveals to the fisheries biologist the condition of the fish population of a lake.

How Fast Do Fish Grow in Florida?

Under average conditions, a bass will grow to a length of one foot, or one pound, in only one year, whereas, in some northern states, this would take two to three years. Crappies (pronounced “croppies”), or speckled perch, as they are sometimes called, may reach a length of 4½ inches by the end of the first year, 8½ inches the second year and just under 10 inches by the third year. These figures were obtained from the study of the life history of the black crappie in Lake George. Not all three-year old crappies in Florida are 10 inches long, but this is a good average.

What Do Fresh Water Fish Eat?

Fish are generally classified, for biological purposes, as to their eating habits. Forage fish are those that feed on plankton, algae, insects and worms. Plankton is a term that applies to all free-floating microscopic organisms that are found in water. This group of fish includes small sunfishes, suckers, and miscellaneous minnows. Carnivorous fishes are those that feed mostly on other fish, particularly those of the forage group.

Why Can’t We Restock All Waters Every Year?

Stocking should be done only in cases where the fish populations are out of balance because of the natural reproduction being low, or where the fish that were present were destroyed or depleted by some means. Stocking is also needed in a newly constructed or renovated lake or pond. The Game and Fresh Water Fish Commission has two fish hatcheries in Florida, one at Holton and one at Blackwater. Each year, the Commission restocks many lakes and ponds, but only where it is proven necessary as the result of tests by a fisheries biologist. Newly created ponds, built with the aid of the Soil Conservation Service, are also stocked and managed by the Commission. Additional fish are obtained when needed from the U.S. Fish and Wildlife Service Hatchery, at Welaka.

Do Diseased Fish Affect Humans?

Not in Florida. There is no known disease of fish in Florida waters that will have effect on human when eaten, if the fish is well cooked before eating. Most diseases that affect fish normally attack them during the late spring and summer. During this time of year, fish are in a weakened condition as a result of spawning. As a rule, fish are physically strong, disease and parasites usually have little effect on them.

What Is The Value of Fresh Water Sport Fishing In Florida?

According to recent surveys, Florida’s fresh water sport fishing has an annual resource value of at least 100 million dollars.

In studying the fish population of a body of water, the fisheries biologist often use seine nets, fish-killing chemicals, and electrofishing devices to collect specimens of fishes.
Always remember that there is a time and place for everything, and frequently—in fishing—it’s time to try trolling.

By ART HUTT

TROLLING TACTICS
As mentioned, artificial lures like this will keep a fresh water roller in business practically anywhere in Florida. (Continued from preceding page)

two-inches long, with an action that can only be described as stiff. Actually it is a bait-casting model, designed for lures in the 5-to-ounce class.

To my notion, line selection is least important. I’ve always kept mine in the fifteen-pound class, and recently I’ve switched to monofilament in that test bracket. On a medium-quality reel, it performs perfectly, and the invisible monofilament line is always an advantage in any fishing situation.

When it comes to lures though, this is where the real evolution—or revolution—has taken place. As mentioned, years ago there were several accepted standbys—mainly the spoons, the wriggling plugs.

Today, they still persist, many in improved form. Old favorites have been painted, newly patterned, or sprinkled with glitter. Deep runners have long lines that make the lure “trip” over obstructions. Or a slackening of the line lets these float upward to free themselves.

But added to these trollers are the spoon-plug type lures, the plastic eel-and-worm imitations, and even live bait itself.

It wasn’t too long ago that a North Carolina lure manufacturer came out with a lure designed for trolling at speeds way above the ordinary—up to ten miles per hour. Although regarded with raised eyebrows, a few trollers gave it a genuine try. At cruising speeds, they let out enough line so that the sinker occurredally thumps against the bottom.

Some anglers use a hook with a weed guard, others a plain hook, or they tie on one of those worm or eel rigs with bright beads, a spinner, and two or three hooks. It doesn’t seem to make much difference.

One of the first times I used this set-up was in Lake Yale, just outside of Eustis. My companion and I slid on the slip sinkers, swivels, and plastic eels. We used No. 1 hooks threaded well into the plastic bodics. We trolled in the north end of the lake off Log Landing, a deep lily-pad fringed cove from which, years ago, cypress logs were floated across the lake. It became a rough, windy day, and for safety’s sake, we had just about decided to head back to camp. And then we started getting hits.

The Flashback seems ridiculous, but we lost four nice bass in short order. One came out with a lure designed for ordinary-up to ten miles per hour. Trolling at speeds way above the normal pace if you have a lure that doesn’t seem to make much difference.

Many really lunker bass are taken by trolling live shiners, too. Motors are turned down about as slow as they’ll idle, and the trollers let loose lip-hooked shiners. Sometimes they use a fairly heavy sinker to hold the shiner down and a big buoyant float for visibility; then again, at times they add no terminal tackle. The bait is trolled well back from the boat. Because of the constant strain, especially when pulling a “horse shiner” through the water, a light surf outfit works nicely in this method.

Admittedly, shiner trolling can be rewarding along a weedy shore, but it is at its best when applied in big openings in the lily pads, such as those found at Lane Park on Lake Harris. I watched one boat working its way around the pads there land a ten-pounder right near me. When this one was slid on a stringer to join a pair of seven pounders, I nearly dropped my perch pole.

At Lane Park, Bill Willingham has seen tremendous catches brought into his camp by shiner trolling. One such catch was a 13¥4-pounder from a small lake near Umatilla. An elderly expert in the Eustis area is Mr. I. C. Christian. He has taken pains to make his boat both safe and dishable. On the stern seat, he’s installed a swivel chair-seat and back. Holders on each gunwale take over his rods. Another wooden socket on the middle seat holds a third rod and directs it squarely over the motor.

It seems that several years ago one of his trolling companions suffered a stroke. Seated up front, fortunately the strikes gentleman fell into the boat rather than out of it. This close call alerted Mr. Christian to such dangers and he came up with a 1¥4-inch, plumbing-pipe rail, firmly fastened to the crosspiece behind his seat and at the front seat on the opposite side of his boat. All in all, it is a neat, sensible installation.

Trolling methods don’t have to be restricted to bass. By trolling a tiny, deep-running lure or jig in many lakes, pre-season perch can be literally massacred. Pickerel, bowfin, and catfish will go for a trolled lure too. One of my most exciting fishing moments was spent in regaining my trolling lure from an eleven-pound channel cat in Haines Creek not too long ago. (Continued on page 35).
It was one of those beautiful, clear-breaking mornings with a faultless arch of blue overhead and only a hint of breeze in the air, the kind of an early summer morning seemingly made for fishing. There was but one thing wrong with it. Someone forgot to cue the bass that they were supposed to be hitting.

L.A. Willie, Paul Bryan and I left Bryan's fishing camp at the highway bridge at the lower end of Lake Kissimmee well before dawn was even a promise on the eastern horizon. We ran down the skimming Kissimmee River for seventeen miles to the perimeter of Ave's Park Game Management Area before starting to work topwater lures along the endless floating masses of water hyacinths.

We drifted with the river, probing every niche in the hyacinths. Occasionally we'd tempt a diminutive largemouth with our tiny hooks but by nine o'clock we had only a brace of keepers on the stringer. As we headed upstream around mid-morning, I rummaged through a tackle box until my eyes settled on a plastic container brimming with lures. I broke it open and scanned the selection. Finally, I picked out a battered spinner-type lure, yellow colored.

After a brief ride, Bryan stopped the outboard runabout in a sharp bend of the river and we began moving lazily with the current. He and Willie sprayed their surface lures along the shoreline. I lobbed the yellow Abu spinner down the heart of the current, allowed it to settle for a moment and started it homeward slowly.

I could feel the spinner working frantically in the current. The lure was almost to the boat when something grabbed it. Shortly, I had a two-pounder flouncing in the boat. The next four casts produced four strikes, three of the fish being keepers.

Each Fisherman has a pet bait — mine is the versatile spinner

By RUSSELL TINSLEY

That sent my two companions scrounging through their tackle boxes after spinner lures. Within the hour we'd added eight more bass to the stringer.

An isolated incident? Perhaps. But I'm inclined to believe that the dependable spinner simply saved another day for me. If I had to make the choice of a single lure for my bass fishing from now on, I'd take this yellow-colored spinner lure. Through the test of time it has produced far more consistently than anything else that I have tried.

I recall one particular lure that held a special spot in my fishing memories. It had a body constructed of three gold-colored beads and a flashy nickel-plated spinner. A friend gave me a couple of these baits, and they were always good for a few bass on practically every trip. At times, this lure paid off when nothing else worked. After that pair was gone, I was unable to uncover duplicates in any sporting goods store. My imitations after that were handmade, but I never built one that quite had the action of those given me by my now deceased friend. I'm still looking, however, hoping to someday find another of the mysterious lures.

A spinner has some sort of special appeal to bass. What it really is supposed to imitate, I'm not sure. It's been proved that bass do not strike lures simply because they resemble any type of natural foods. There are other motivations, such as anger.

Perhaps the incessant flash and vibration of a spinner irritates a temperament bass into striking. There are two basic designs of true spinner lures. One has a metal body tapered at either end, a spinner in front with a trailing treble hook. The other has a lead head and an offset spinner. A V-shaped wire is the basic design, with the lead body at one terminal of the V, and either a single or treble hook at the other.

Spinners also are added to various other lures to give them added flash. Some anglers place them in tandem with spoons. Even a few full-bodied lures are equipped with spinners. A good fly-rod bait for bass is a yellow or black streamer fly with a spinner placed forward.

There are various types of spinners, ranging from oblong designs to pear-shaped spinners. Most are either plain, hammered brass, or nickel plated. The duller brass color seems to work best in clear waters, the nickel-plated spinners when the water is slightly murky.

The cigar-shaped spinner lures are found in two basic sizes—one-fourth and one-third ounce. The offset-spinner baits come basically in three-eighths, one-half and five-eighths ounce sizes. The smaller lures catch the most bass while the larger ones take bigger bass, on the average.

A majority of the spinner-type lures are designed to operate at a shallow depth. The angler can vary the retrieve simply by allowing the lure to sink to any depth he chooses by either reeling fast or slow. With a fast retrieve, the bait rises toward the surface; when reeled slowly it tends to remain at a deeper depth.

Spinner baits come in every color scheme imaginable. My two personal favorites are yellow with black dots, and black with yellow dots. On the offset-spinner types with rubber skirts, I prefer a yellow body with a black skirt, or vice-versa. Another good producer is white with black dots. Yellow and black encompass both light and dark color shades, and they will handle most every situation. Of the two, I like yellow best.

One of the most effective ways of fishing a spinner lure for big bass is to work it right along the bottom, much in the fashion of a leadhead jig or plug. The offset-spinner model with rubber skirt and single-gle hook is best. Allow the lure to sink on or near the bottom, then work it back gradually with stop-and-go jerks, moving the lure just fast enough to make the spinner tick-tock. Another effective retrieve is to fish one of the cigar-shaped spinner lures right along the surface. When you cast, start reeling the instant the lure kisses the surface. Raise your rod tip almost to a vertical position, and maintain a constant reeling speed which will bring the lure skimming along the top, churning a wake with its spinner blade. Sometimes this retrieve is particularly deadly when the lure is worked parallel to a weed bed, just as close to the bordering cover as possible without fouling the lure.

Not only is the spinner lure versatile in the manner with which it is retrieved, but it also can be fished in a variety of waters—from tiny cypress-bottom ponds to sprawling lakes. In fact, for postage-stamp waters such as narrow streams and bottom-bumping baits like the plastic worm, but it is a consistent and dependable workhorse. That's why I nominate the best all-round bass lure.

Don't you agree?
As Florida's wetlands and watersheds enter their third century of official protection, the St. Johns River continues to be the focus of much of the conservation effort. The river, which flows from the Ocala National Forest to the Atlantic Ocean, is one of the most important waterways in the state, providing water for drinking, irrigation, and recreation. It is also a major habitat for wildlife, including fish, birds, and mammals.

The St. Johns River is also part of the national Wild and Scenic Rivers System, which recognizes rivers that have outstanding natural, recreational, and educational values. The river is a popular destination for anglers, canoeists, and other water users, and it is home to a diverse array of fish and other aquatic life.

The St. Johns River is also known for its unique characteristics, such as its slow flow and its deep blue color. It is also known for its history, as it has been a major transportation route for centuries, and it has played a role in Florida's history and culture.

Today, the St. Johns River is being managed and protected by a variety of organizations, including the Florida Department of Environmental Protection, the U.S. Fish and Wildlife Service, and the St. Johns River Water Management District. These organizations work together to ensure that the river remains healthy and vibrant, and to protect the river's natural resources for future generations.
TROLLING TACTICS

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Not all anglers use the same tactics to land a fish hooked by trolling. Some keep the boat moving to insure a tight line. Others even speed up. For me, I like to stop the boat and fight it out, not handicappping the bass by the forward motion of the boat. The bass has a better chance to display some spunk.

But one of the most unusual trolling approaches is one called "dragging." This is for those who don't like boats, who get seasick, or who only have a few minutes to spare. And naturally, for anyone who likes to catch fish.

Draggers take a plastic worm or eel, weight it with a split shot (if needed). Draggers use a relatively large drag. When the gentle nudge is felt, the drag is set, but the drag is not released! The fish is allowed to fight the boat. Draggers work off the T-dock in Eustis, where the bass are near the top, they leave it alone.

Editor's Note: We would like to have the names of all Dog Clubs in the state, also the names of its officers and directors, and be placed on their mailing list to receive letters pertaining to their activities. Please forward this information to; Mr. G. M. Hartman, a dragger, Long bridges, such as Long Bridge, Newborn, and exercise.

As for the tackle used on our bay, I am sure you will find it interesting to learn that we have a number of special "fishing" techniques in use here.

One of these is called "dragging," which can be done from either a stationary or moving boat. The angler uses a long line, but instead of reel, he uses a drag. The hook is baited with a small piece of wood or metal, and the line is allowed to swing freely. The angler then waits for a bite, and when he feels a tug, he simply allows the fish to pull the line back into the water. This allows the fish to swim freely, and it also prevents the angler from getting tangled in the line.

Another technique is called "spinning," which is similar to "dragging," but the angler uses a smaller hook and a shorter line. He also uses a lighter drag, and he allows the fish to swim more freely. This technique is often used for catching smaller species of fish, such as bass and redfish.

Both of these techniques require some skill and experience, and they can be quite challenging. However, they can also be very rewarding, as they allow the angler to experience the thrill of the chase and to enjoy the beauty of the fish that he catches.

I hope this information is helpful, and I look forward to hearing from you soon.

Sincerely,
[Signature]
[Name]
[Address]
Two Ways For Spinning

There are two accepted ways of using your finger on an open-face spinning reel. One is to pick up the line with the forefinger, releasing it as the cast is made. The other method is simply to hold the line "against the edge of the spool." Both methods have their exponents but most of those who exhibit extreme accuracy use the latter method. I am awkward with the against-the-spool method because I learned the other way first. There are some spinning reels that wind the line or spool 2 1/2- or 3 1/2-times faster than the spool itself, hence making it nearly impossible to employ the against-the-spool method.

Almost all good spin-casters control the force of their cast by finger- ing the line as it pays off the spool. If this device is used, it seems it should make no much difference how the cast started.

The most accurate spinning I've ever seen was accomplished with the type of closed-face reel that hangs behind the hand on the rod. It seems at present that this type of reel is being largely superseded by the kind used above the rod and thumbed. Admittedly, the latter type is easier accurate. So far, I've never seen a spin-cast reel that could be "feathered" smoothly with the thumb. It seems to me that the brake is either on or off. The accurate caster should figure not only the direction of his cast but also the exact force with which it should be thrown instead of second-guessing with his thumb as the user of conventional baitcasting reels does.

Heads Up!

Many a big fish has been lost when it was ready for the net or gaff and we might go into all details of the landing operation at another time but there is one phase of the business I want to stress right now.

After the wild-eyed part of a big-fish fight is over, there generally remains a longer period of pumping and heaving in an effort at getting the prize up to the boat or bank. The old piece of advice about keeping his head up is sensible for some reasons most of us don't go into.

A fish can exert a lot of power going forward and he can dig for the bottom for a while—but he is poorly equipped to combat a lifting pressure. If you pull his head up, it is a great effect for him to get it down again as he tires. He is off balance and you have him coming your way. I don't think the idea that I could whip a fish better by keeping away from him and simply curving his runs. I see now that I let a lot of them escape that way. Once he begins to tire, get over him and keep pulling up. If you are using a boat there are added hazards of your fish getting underneath and these are usually more than offset by the advantage you have gained in your straight-up-lifting—after the fish is tired. Usually, the more he tires, the more pressure you can apply. That's routine advice.

FRESH WATER BRAWLER

(Continued from Page 2)

experimented with electrical shocking boats reports mudfish probably reach weights of 20 pounds. Seventeen-pounders have been retrieved by shocking crews, and the fishery people are certain that's not the top weight. But a six-pounder—what a fight!—has been the biggest I've landed to date, but you never know.

The bowfin - mudfish - dogfish or whatever you want to call him is an interesting member of the piscatorius family, although most anglers know little about him. He's found over a wide terrain from Canada to Florida, and the Gulf Coast states. He's also encountered west of the Appalachians to the Mississippi Valley and in the Carolinas. And any place he's a 'fishing' fool.

He's the lone remaining member of a prehistoric family and is easily identified by an overall olive-brown color with a light to muddy brown belly. His flat head is vicious looking, and his elongated dorsal fin covers two-thirds of his body starting with his blunt tail.

Dry-land species—actually in mud—where other game fish can't survive. One day deep in the Falkhatchee swamp in southwest Florida Cal told me and I photographed a mudfish, marmooned in a mudhole—all that remained of a small pond. He'd become trapped by the drouth, but he was still alive. A bass or any spot-like fish would have been dead before the water even reached a low point. But not this throw back from the stone age.

For light tackle anglers who want a real fishy water battle, here's one or two tips about Mr. Bowfin. He'll lock most any artificial, but your chances are best with an underwater lure. How he loves plastic worms! He'll chortle bait—both live and dead—with a vengeance, and if you're seriously after fishing when he arrives, move on for you'll not catch any eatin' fish with him prowling.

Eight-pound test spinning line is normally sufficient to handle him if you've got a net. However, it won't do, if you've got to pick him up with grippers, for he goes crazy when you clamp down, and his violent antics in the water or on the land—will snap your line. Best thing for this situation is to use a 15-pound test leader, 15 feet long to take the shock of landing him when you've got him whipped. And play him out! You don't have a home in a mudfish, if you want to keep your tackle intact.

And when approaching watch out! He'll flop around in a boat or on land, and plug hooks can flop dangerously deep into your hand. Too, be careful of his sharp teeth. He can and WILL bite hard. Best means of handling is with a pair of aluminum fish grippers, and use long nose pliers to unhook him. And always watch out! He's mean, and doesn't tire easily.

Bowfin - mudfish - grindle - $75 may not be the most respected sports fish, but pound for pound he'll give you as much or more action as a largemouth bass or some of the other highly rated game fish. And usually he's obliging. Want action? Seek bowfins on light tackle. They don't lack fight—no, sir!
Each pair of Rod Hold-R's carries a price tag of $4.95, and comes with screws for mounting brackets on wood, and with a special adhesive for installation on fiberglass or aluminum. Made by The Enterprise Mfg. Company, 110 North Union Street, Akron 9, Ohio, stocked by fishing tackle and marine supply stores.

Two strap and buckle fasteners permit the bag's top opening to be closed tightly or strapped in partial open-mouth position. The bag, besides being made of tough, builders' grade canvas, is strongly sewn and riveted.

Originally intended to hold a bricklayer's tools, the bag is ideal for carrying fishing tackle and other miscellaneous gear. It is not too large for easy carrying, yet it will hold just about all the personal items you will want to take on a fishing, boating, picnic, overnight camping or hunting trip.

It should also prove ideal as an in-the-woods carryall for archers and gun hunters operating from either ground level or from a tree "stand." For such use, the white canvas exterior should be doubled with blotches of green, brown and black paint, to create a camouflage effect.

The Sears' product has only a single inside pocket compartment to divide its roomy interior, but exterior or inside pockets can easily be added by using small pieces of matching, heavy-duty builders' canvas, fastened to the bag with rivets, adhesives or both. For example, a pouch type, flap closing compartment might be added to each exterior side of the bag, to hold small articles.

Besides ordering by catalog number, you can be sure you are getting the right size by marking off the bottom of the bag for the imprinted words "Made for Sears, Roebuck & Company, No. 65593 -Size 20 Inches."

The intent, of course, is commercial, to so correlate the development of the area with the natural hunting, fishing, boating and scenic attractions of its St. Johns River and Ocala Forest frontage as to appeal to sportsmen and family with an outdoor interest. This type of approach makes River Forest a significant project — not only because of its location in central Florida's top-level hunting and fishing country, but also for its philosophy of preserving outdoor values. The steps being taken to protect and preserve woodlands and wildlife habitat should receive the acclaim of all outdoorsmen. It's a refreshing difference from the common practice of bulldozing the land barren of trees and draining swamps.

Well ... Nosy Toby's arrow head has taken us a long way; into some beautiful stream country, some good cruising, skiing, fishing and exploration waters, and into the past, present and future of a mighty attractive part of Florida. For the trailer-borne boaterman, it's accessible from a state wayside launching ramp and park area at the east approach of the State Route 44 bridge over the St. Johns River, five miles west of Deland.

The L. L. Bean-made tackle bag described in FLORIDA WILDLIFE has pleased many readers, but there have been numerous requests for magazine report on an available bag of larger size and more diversified use. FWFTOT feels such a bag has been found in the Sears, Roebuck catalog listing No. 9A65993, price $7.15.

It is a heavy-weight canvas bag, 20 inches long, made with a canvas covered top-section reinforced metal frame and fitted with double style leather handles for comfortable carrying and long service. Bottom is of hard construction, canvas covered, and has eight metal lugs to keep it from contact with wet surfaces on which it might be placed.

Used in recreation room, basement or garage, the Pflueger Rod Hold-R displays rod and reel outfits con be rocked singly or in concept four fishing rods, space them evenly and stroped at logical points near tip hockets as a working team, slotted to ac-

"Flora sa one form or another — not hard fishing — is generally the reason why many good fishing rods break. Even the best of rods cannot long endure being stepped on, or the abrasion and shock from being being knocked about.

Usually when fishing from a boat, an angler takes along several rods or keeps several outfits aboard. No matter where placed, sooner or later they get knocked down, pasted or jumbled, when they are not racketed.

To prevent rod damage, as well as keep- ing rigged tackle tidy, FWFTOT likes the Pflueger Rod Hold-R's mode of resilient rigging No. 9A65593, price $7.15.

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