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GEORGIA GAME & FISH

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GEORGIA
GAME & FISH

January 1969 Volume IV Number 1

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THE GENERAL ASSEMBLY CONSERVES WILDLIFE

In a democratic society, action by the governing legislative body is usually necessary before significant steps can be taken by any governmental agency.

Georgia is no exception to this rule. That is the reason that each year, Georgians look to their General Assembly to provide the leadership to conserve and develop Georgia's wildlife resources for future generations, as well as today's hunters, fishermen, and boaters.

There are five major areas which require close attention from the General Assembly this month when it reconvenes in Atlanta if Georgia's wildlife conservation program is to progress and keep pace with changing times:

1. *Preservation of Marshes.*

A bill setting up a Coastal Wetlands Control Board to preserve Georgia's marshes has been drawn up by Representative Reid Harris, a Brunswick attorney who is chairman of the House Estuarine Study Committee. The proposed board would control any filling and dredging projects proposed in the invaluable Georgia marshes, such as the outrageous proposal of the Kerr-McGee Corporation of Oklahoma to destroy one-twelfth of Georgia's coastal marine resources. Companion bills to be sponsored by Representative Harris will require General Assembly approval of any mineral leases of state land made by the Mineral Leasing Commission. A budget appropriation would be authorized for the State Game and Fish Commission to have a legal study made to determine who owns most Georgia marshes, followed by a program of voluntary purchase of any privately owned marshlands for sale.

2. *Control of Wild and Free-Running Dogs.*

The House Wild Dog Study Committee chaired by Repsentative Howard Rainey of Cordele has prepared legislation for dealing with the serious wildlife, agricultural, and health problems caused by uncontrolled dogs. Their bill provides for financing a system of dog wardens and pounds for each Georgia county through a dog license fee. Dog owners would be made liable for the actions of their animals, and would be subject to misdemeanor charges for violation of the provisions of the law. Such a law has long been needed in Georgia.

3. *Damage Collection Against Water Polluters.*

Last year's General Assembly passed a law allowing the State Game and Fish Commission to collect damages in court for fish killed by polluters. However, the bill was effectively gutted by adding on a provision that it would apply only to waters flowing into fish hatcheries or public fishing lakes owned by the State Game and Fish Commission. This restrictive provision of the law should be removed. In addition, the Georgia Water Quality Control Board should be given the power to fine polluters who "accidentally" pollute streams through carelessness or negligence.

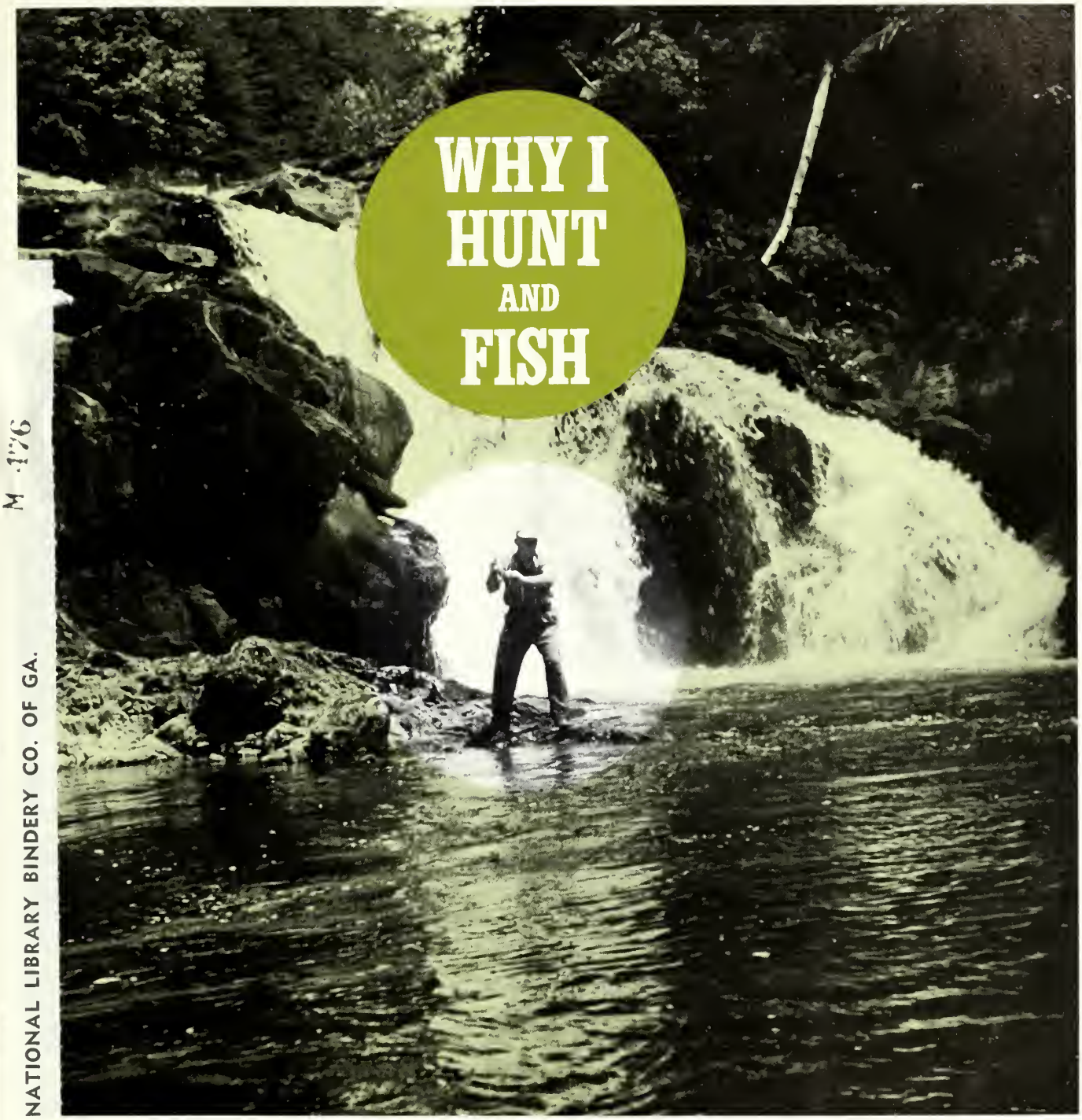
(Continued on Page 16)

ON THE COVER: A mallard drake and a hen, favorites of duck hunters in Georgia and most of the North American continent. Color painting by Duane Raver.

ON THE BACK COVER: "To err is human . . ." and we really erred! The editor planned to use this picture of a Georgia cottontail last month. Somehow, it was swapped for a picture that was to have appeared this month of author Oscar Dewberry and some Butler Island ducks. Since *Game* and *Fish* photographer Ted Borg made both pictures, and both ducks and rabbits are still in season, maybe it's not too bad a goof!

PHOTO CREDITS: Ted Borg t. & c. 6, 13, 14; Charles Elliott 3; Jim Morrison 4, b.6, b.7, 9, 11, 12; Water Quality Control Board 8.

WHY I HUNT AND FISH



By Charles Elliott

Somewhere ahead we heard the thunder of a waterfall. It filled the canyon with overtones that was background music to the symphony of the riffles under our feet. We passed up a likely pool and splashed ahead to a sweeping bend of the river and stood in awe at the spectacle before us.

The river left its canyon bed on the mountainside and leapt into space, its solid volume of water disintegrating as it fell, into distorted columns of spray. The slanting sun made it look like a shower of silver, set in the emerald of laurel banks and hemlock trees, with its base a turquoise pool carved in massive boulders.

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Only the beauty of a mountain stream can be more rewarding than catching a trout

"This is yours," my stream partner announced cheerfully. "I fished the last one."

"You go ahead," I murmured. "I'll sit this one out."

He slid into the water and became a part of the tableau, the end of his nylon line flicking at the hidden corners of the pool. Suddenly the rod leapt in his hands and seemed to become a living part of him. The largest rainbow we had seen that day erupted from the depths of a rocky cavern, throwing its body through such an aerial performance that I thought of poetry in slow motion.

My partner played his catch skillfully through three more jumps, held a taut line while his rainbow bored for safety in the depth, and finally brought his fish on its side and within reach of his net. He splashed back to where I sat, his face lit up like a neon bass bug, and held up the 20-incher for me to see.

"That is a beauty," I agreed.

He lowered the fish and regarded me suspiciously.

"That was really your pool. Why didn't you want to fish it?"

"I wouldn't have had it any other way," I assured him. "What I'll remember here is more enduring than any trout."

"Why do you fish at all?" he demanded.

I shrugged and relit my pipe. If he did not understand by then, he never would.

"Let's detour around that hunk of granite and find another hole," I suggested. "You've done right well by this one."

As we climbed our mountain stream that day, I continued to ponder my partner's question. Why, indeed, did I fish—or hunt? Why does anyone? Obviously, that question could get a hundred different answers. Maybe more. And each would be in keeping with the character of the individual giving the answer.

No one knows for sure, but reducing animals, birds, fish and other creatures to the substance meals are made of, must have originated out of hunger. Man is, and has always been, a predator; that is, he preyed on the creatures around him—and no doubt some of them preyed on him—to get his daily vittles.

Over the millenniums we have constantly improved our techniques for taking game and fish—from club to spear and arrow and gorge, to the modern high-powered rifle and artfully designed fishing gear. In the lifetime span of man on this earth, the two-legged species has also arranged his affairs in such a way that instead of having to go out and find meat and other sustenance for his family, he has it brought to him from all over the world.

In spite of these changes, there remains in most of us the urge and instinct to single-handedly venture forth and bring home the makings of a family meal. To know that we can accomplish this gives us a feeling of security—and its actual accomplishment gives us a sense of satisfaction and importance.

Basically—under the veneer of civilization we have acquired over a few million years—that is probably the reason man finds so much satisfaction in the arts of hunting and fishing.

But there are other reasons which, in the complexities of modern existence, are every bit as important as the satisfaction of those instincts brought down from the cave days. Most of us do lead a highly complicated existence, revolving around profit and loss, taxes, wars, elections, mechanical gadgets and any number of other modern frustrations which constantly tear at our emotions. To help combat physical, mental and moral fatigue caused by the daily grind, business wisely provides a certain amount of time each year for relaxation. We call it a vacation, and this change of activity—even for a short period—is necessary to keep most of us from ending up in the bughouse.

In a sense every hunting trip, every fishing trip—no matter what the duration—is an escape from those complexities which surround us. Our motivating influence may be to satisfy that age-old urge to put meat on the table—but the other rewards are much more lasting than a mouthful of meat.

Like my fishing partner and me at the waterfall—to save my soul I could never tell you what became of that trout; the memory of the beauty and the music of the moment is one of the bright spots of my outdoor year.

In spite of the fact that man is pre-

dacious by nature, I am sure that killing for the pleasure of seeing creatures die has very few disciples among hunters and fishermen. Most of those I know feel the way I do—that pulling a trigger is the poorest part of any hunt, and that putting a fish in the creel or on a stringer the least memorable moment of any fishing trip.

What are those things you are most likely to recall when you sit down and think of the last time you were in the woods, or on a lake or stream?

I remember a campfire in the cold, black heart of the night. Its flames threw ragged shadows behind the trees, its shower of sparks died on the wings of the darkness. We broiled a steak over it on a two-pronged hickory spit cut out of the woods—the aroma of coffee came from an old pot set on coals raked out of the golden heart of the fire. The fire crackled and spat and whispered and sang to keep up a cheerful conversation while it drove back the barriers of the night and embraced us in the aura of its warmth. You can get more warmth out of a stove or furnace, but not the friendship you feel with your campfire on an autumn night.

I remember the corner of a lake at sundown. The wind had died, the surface was mirror-still. At the end of the cove a wood thrush played its solemn flute and a squirrel barked from the hillside. The sun had gone, but it left vermilion clouds splayed across the sky and as these began to fade, a bass splashed against the shoreline. We laid a frog popper in the middle of the wake left by the largemouth, let the ripples die, and worked it out with a gurgling sound that added to the soft music of the night. A real frog grunted from the bank behind us, and peepers scattered along the shoreline took up the chorus. The bass we tried to entice ignored our offerings, but that was all right. The dying day was sufficient unto itself.

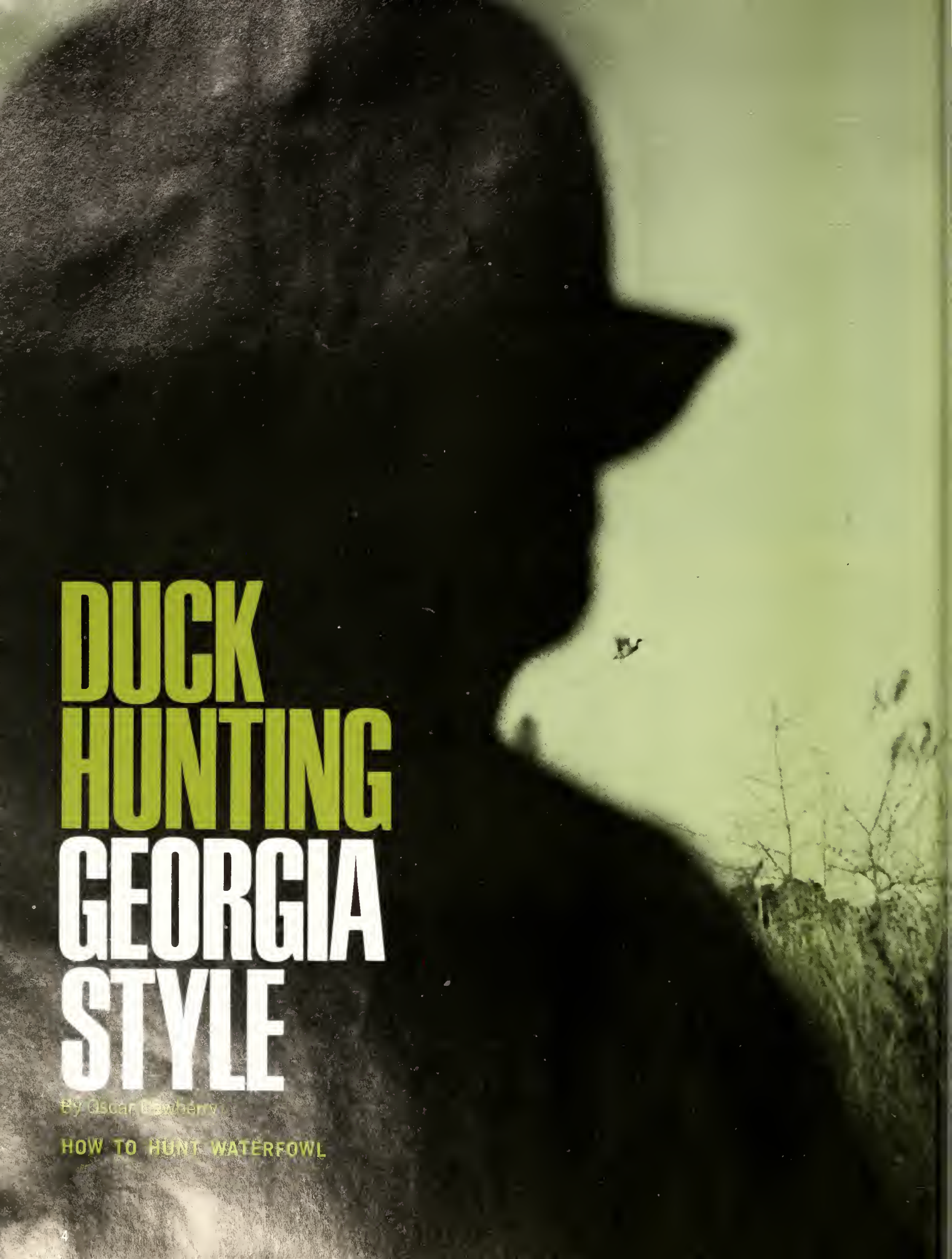
I remember perching in a mesquite tree on the Texas-Mexican border. A mesquite has thorns in the most unexpected places. Its limbs are brittle and you don't dare quite trust one to support your weight. So I distributed my carcass as best I could on several of the branches, held on to my rifle and kept an eye peeled on a well-used deer trail that ran under the tree. A huge hawk lit in the topmost branches and peered down at me. A group of javelinas came by, grunting at one another and probing in the soft dirt for what kind of food I had no idea. A dog coyote trotted by, came to my trail, sniffed at it and paused to study the terrain ahead before moving on. I did not see the buck I was after, and did not care especially for sitting long hours in a mesquite tree, but would not have missed that afternoon for any price.

I remember an arctic afternoon, when the red mark on the thermometer stood at 45 degrees below zero. Now and then a tree limb popped and I knew that its juices had frozen under the intense cold. The snow was half way to my knees and made a muffled tinkle when I moved. Moose trails showed in the snow and the trail of a snowshoe rabbit—the hare that turns from brown to white when the snow flies—crossed the moose tracks. The air was so cold it felt hot to my lungs and in spite of heavy clothes and wool and horsehide mittens, I had to keep moving to save myself from congealing completely. Who can forget such an afternoon in a barren, white wasteland of mid-winter?

I've taken game and fish—sure—but the kills and catches are not what I remember most about the outdoors. As important as the memories I bring home, are the things I leave in the woods and fields and on the waters. They are the dumping ground for my tension and worry and nerves worn thin by the friction of what we call civilization. I breathe the polluted air out of my lungs and wash my face and hands clean of the grime. I get the jangle of the telephone, radio, television, juke box, the blare of horns and scream of motors out of my ears.

I find peacefulness, and solitude, and music not of the trumpet or the drum. I am refreshed and invigorated and I remember to look up into the hills and give thanks that there are still a few spots where one may go and get away from it all.

Those, old partner, are a few of the reasons why I hunt, and why I fish.



DUCK HUNTING GEORGIA STYLE

By Oscar Dewberry

HOW TO HUNT WATERFOWL

Less than 20 years ago, duck hunting in Georgia was confined mostly to the coastal sections and southern parts, or along major rivers and waterways.

With the advent of large bodies of water created by dams in recent years, waterfowl hunting has become popular in other sections of the state. Another asset to this hunting has been the creation of ponds by beavers in many areas of Georgia. These ponds afford excellent nesting habitat for the wood duck, and usually produce a food crop that is used extensively by wintering flocks of migratory birds.

Since all Georgia ducks are migratory except the wood duck, they are here only during the period following the southern migration in the fall and before the northern migration in late winter or early spring. Birds migrating into Georgia usually follow the Atlantic Flyway, which generally extends from the Atlantic Coast west to the Allegheny Mountains, curving northward across West Virginia to the end of Lake Erie. This explains the predominance of waterfowl along the Georgia coast.

Ducks also tend to migrate in relation to weather conditions. If there is an early fall with severe cold weather along the Atlantic Coast and in the northern prairie states, an early influx of ducks may be expected. If the weather is balmy and mild, the duck population reaches its peak during December, and sometimes, as late as January.

Generally, duck hunting is best from sunrise until about midmorning and from mid-afternoon until sunset. This is especially true if fair weather prevails, because ducks have a tendency to move in relation to weather conditions. Diving ducks such as scaup, redhead, canvasback, and ringneck will stay offshore during fair weather when the water is calm. Bad weather conditions are the best times for duck hunting because birds are constantly moving and feeding throughout the day.

The best gauge shotgun to use is purely a matter of individual choice. Since long shots are not uncommon in waterfowl hunting, a long barrel with full or modified choke is recommended. High velocity shells with shot sizes between No. 4 and 8 are usually used. Fours are considered less likely to cause lead poisoning of ducks eating them off pond bottoms, since they are heavier and sink into the mud quicker than eights.

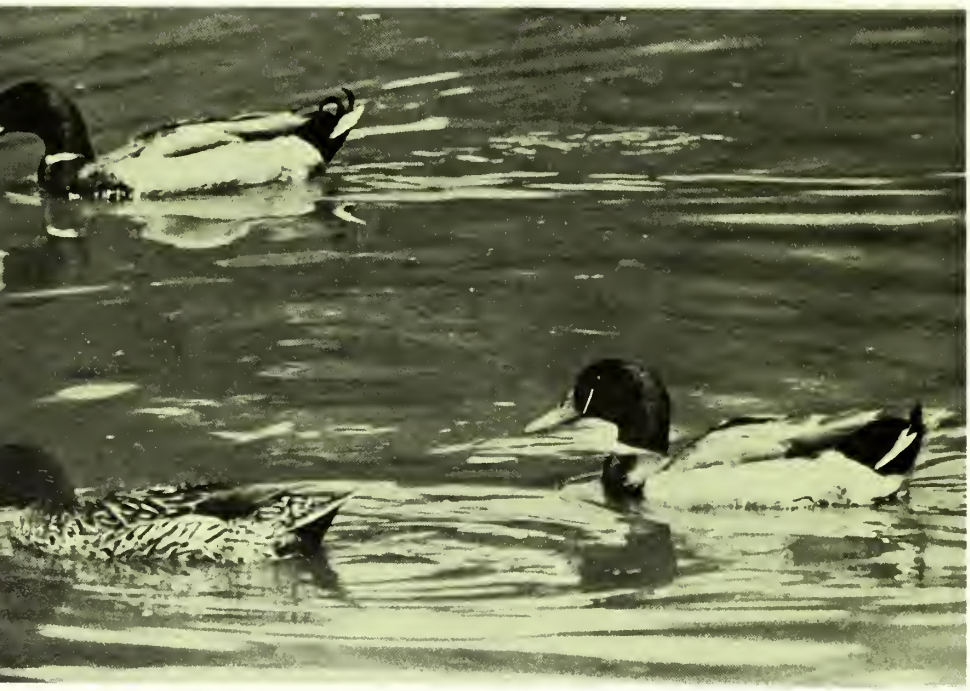
Near the coast, duck hunting is diversified. Hunters may shoot from a blind, jump shoot from shallow water or marshes, and float rivers or creeks by small boat. In the marsh section, shooting from a blind is common, but a boat is usually necessary for transportation to the blind. Blind constructions are many and varied, depending upon the capital outlay of the builder and the use planned. Some are elaborate wooden structures with floors, seats, and other conveniences. Others are simple lean-to structures of woven wire thatched with grass. In any event, the blind should be constructed well before the hunting season and made to blend with the surroundings as nearly as possible. In addition, the duck hunter should never wear bright colored clothing. Ducks have sharp eyesight.

In hunting from a blind, a spread of decoys are helpful, along with a duck call, and possibly a retriever. The number of decoys depend upon the individual, although about 25 are usually set by the experienced hunter (if available). Most ducks passing decoys can be turned by a good caller, although care should be exercised that shots are not fired until the bird is well within range, thus reducing cripple losses. A simple rule to follow is to shoot all cripples immediately after they hit the water. A trained retriever is a pleasure to watch, and he reduces cripples lost to a minimum.

Large sections of the coastal river marshes were once planted to rice, and were diked for water controls by a series of dikes, canals and ditches. Most of these ditches, where hunting is allowed, can be hunted by two men in a small boat. Some of the fields can still be waded for jump shooting.

The tidal creeks usually abound with ducks, especially during the years of a heavy acorn crop. During this time, float shooting from a small boat is more successful, but it should be remembered that the use of a motor is prohibited, except to retrieve a dead bird.

When hunting ducks from an out-



Top left: Jump shooting from a small boat can produce results, like this brace of ducks bagged by author Oscar Dewberry on the Commission's Altamaha Waterfowl Management Area near Darien.

Top right: Gangway! Hitting a fast flying ringneck about to escape through the trees isn't easy.

Above: These mallards may look peaceful, but don't be deceived. The slightest warning is all they need. Drakes have the green head, while hens have mottled brown bodies.

Right: Something to grin about! Guide Archie Davis of Darien (left) can't help being pleased over a fat black duck, one of the most popular large ducks, along with the slightly less elusive hen mallard held by Bill Baab, outdoor editor of the Augusta Chronicle.

board motor boat, federal law no longer requires that the motor be taken off the transom and placed in the bottom of the boat. The motor may remain on the transom in the water without being tilted up, but it must be completely shut off and the forward progress of the boat due to the motor must have ceased before hunters can begin shooting. With the motor shut off, the boat can be drifting, beached, moored, anchored, or paddled, oared, or poled.

Jump shooting is popular in all sections, but probably more so in the Piedmont or Middle Georgia counties, where beaver ponds are more numerous. Due to the inaccessible sections where beaver ponds are usually located, a boat is hard to use. For this type shooting, a pair of rubber boots or chest waders are necessary. One of the more recent pieces of equipment for this type hunting endorsed by this writer is the tube float. With a tube float and chest waders, all sections and water depths are accessible. Decoys may also be used in this type hunting, if the individual has the fortitude to carry them in. Beaver pond shooting is more successful in early morning or late afternoon, because wood ducks and mallards, which comprise about 90 per cent of these ponds' duck population, are more active at these hours.

The farm ponds of middle Georgia also provide some waterfowl hunting, due to their construction, location and habitat. Most of these ponds have a potential for roosting woodies. They afford shooting in the morning only, due to the late time that woodies usually go in to roost in the afternoon, often after sundown.

Most of the major middle Georgia rivers, especially the Oconee, Ocmulgee, Ogeechee, Ohoopee, and Altamaha have a variety of waterfowl during the winter months. They can be hunted with relative ease from a small boat, but float hunting them should be reserved for an all day trip. Unless the hunters plan to return upstream, a predetermined site and time must be selected for ending the hunt.

While the future of migratory duck hunting in Georgia is dim because of the destruction of nesting areas in Canada and the northern United States, that time is still a few years away. Perhaps the expanded habitat for wood ducks can fill the void, or some exotic species of ducks can be found that won't rely on northern nesting grounds. Efforts to preserve wetlands may succeed to some extent, before it is too late.

But right now, it's not too late to be a duck hunter.

A truck lumbered down a city street, carrying a barrel of strong, poisonous insecticide. The barrel fell off the truck. The insecticide came flowing out.

Washed into the street's gutter, the deadly poison found its way to the storm sewer and eventually out into a stream. Soon fish were dying all over the little stream. As the material flowed downstream, it left a wake of death and destruction behind it.

When the insecticide reached a Game and Fish Commission public fishing area downstream, the damage multiplied rapidly, soon leaving more than $10,000 worth of dead sport fish.

Noting this and acting quickly, a Game and Fish Commission hatchery employee promptly went into action to prevent the polluted water from the stream from entering the hatchery's water system. Thus, he saved many thousands of dollars worth of tiny channel catfish earmarked for Georgia fishing waters.

But there was nothing he could do about the public fishing lake on the hatchery property at Cordele. It was too late now.

A little boy, perhaps seven or eight years old, wore a big smile. Over one shoulder he carried a willow pole he'd cut himself, and outfitted with a fishing line. In his hand was a can of worms he had dug. He was happy. He was going fishing. His spirits soared.

Then he came to the shore of the

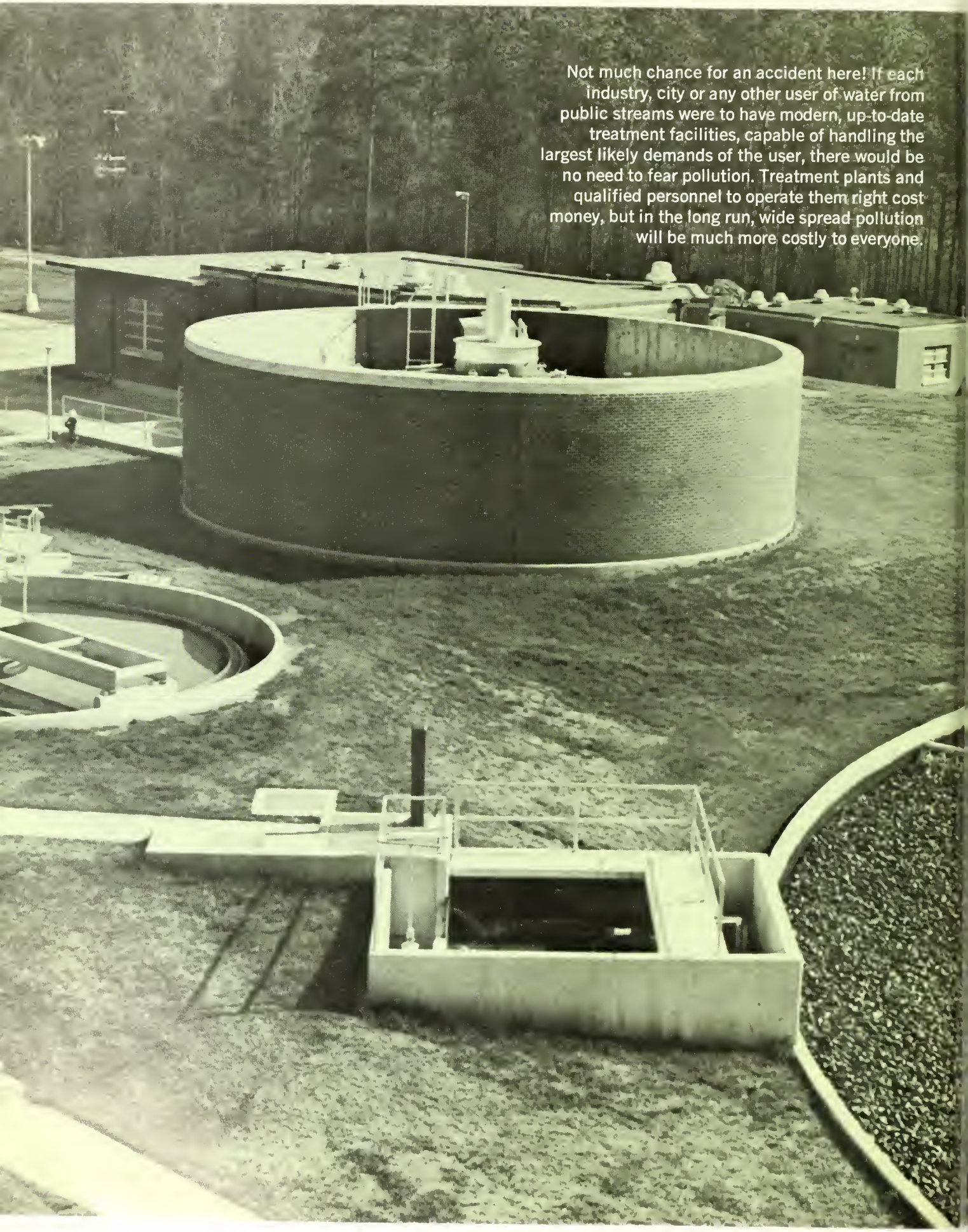
FLOWING DEATH COSTS YOU

Sportsmen Foot the Bill for "Accidental" Pollution!

By Dean Wohlgemuth

1. A storm drain frequently carrys off "accidental" spills of poisons from industries. The drain carries the deadly mess to a creek, then to a river. Result: another pollution problem, more dead fish.

2. These catfish, bass and bream were just a few of the game fish that died in a middle Georgia creek when a textile mill dumped dyes into the water. License-buying fishermen get shortchanged in the deal, while the polluter gets away scot-free, without having to pay a cent for the damage he did.



Not much chance for an accident here! If each industry, city or any other user of water from public streams were to have modern, up-to-date treatment facilities, capable of handling the largest likely demands of the user, there would be no need to fear pollution. Treatment plants and qualified personnel to operate them right cost money, but in the long run, wide spread pollution will be much more costly to everyone.

public fishing lake. His heart sank, the smile faded to a frown. Other eyes, those of an adult angler, turned to a look of disgust. Floating dead fish dotted the entire surface of the lake.

No use going fishing now. There weren't any fish left.

This true story occurred in Georgia a little over a year ago. Similar stories happen frequently, usually somewhere around two to six times each year. Few involve a public fishing lake managed by the Game and Fish Commission, but almost all involve waters in which the public fishes. In many cases there is a dangerous health hazard for public water supplies or for livestock.

In every case, it means extra expense for the Game and Fish Commission, ultimately resulting in cost to all the sportsmen in Georgia.

Such "accidental" pollution dips directly into the billfold of all Peach State anglers, even though the fault is not theirs that someone was careless with their God-given resources. This is so because the Game and Fish Commission derives almost all its income for fish management from the buyers of hunting and fishing licenses.

If it were not for repairing the thousands of dollars worth of damage that occurs each year from such mishaps, the Commisison could devote more time, attention and money to improving other areas.

As it is, Commission personnel must retrace their steps. They had to take time and money to go back to an already fine fishing spot, such as the one at Cordele. Considerable money had already been invested in making this a good place for people to fish, in a convenient location for many anglers.

In addition to the money and effort wasted, the fishermen lost at least two years of good fishing.

Once the water was again fit to support fish life, it was restocked. But such restocking must be done with tiny fish. It will be two years until the fish are big enough to catch. Even then, the fish will not be of the size of a great many of the fish that were killed. It will take several more years to return the lake to the good fishing quality that it had before the "accident," or more accurately, the negligence.

If the sportsman feels cheated in an instance like this, who can blame him? He has a right to feel that way. He had to pay for someone else's mistake, through no fault of his own.

There is a definite need, the Commission feels, for legislation that will take this burden from the angler. Game and Fish Director George T. Bagby will again ask the Georgia General Assembly for a new law, one that will place the burden of liability on the polluter. "We need a bill that will make any one who is responsible for pollution which results in a fish kill liable for the damage," Bagby said.

There is nothing left for Georgia Game and Fish Commission biologists to do but examine the dead fish and find the cause of their death. But who's going to pay for restocking this stream, while the poison flows on downstream? Georgia law will have to be changed before anything can be done about it.

He said such a bill will be introduced this year at the legislature's next session. It would require that the polluter reimburse the Commission for the actual market value of the game fish killed.

Even this is below the actual cost of such a kill. No provision will be asked for the time and money spent in restocking. There won't be any provision for reclaiming losses to small plants and aquatic life killed in stream, which provide food for larger fish, and eventually bring a loss of game fish.

Such a bill was introduced last year, but was sadly weakened, so that only damage to waters on Game and Fish Commission property were affected. This bill still left the sportsman with an empty stringer and a big hole in his billfold. He's still paying for the mistakes of others. For example, 15 miles of high quality stream in South Georgia, were killed out when Muckalee Creek was the victim of "accidental" pollution, not long after the Cordele incident.

When an Americus fertilizer plant washed out several tanks that had contained hydrofluoric acid, the wash water was drained into Muckalee Creek, over a period of three or four days. Some 15 miles of stream was affected, killing game fish of all kinds. Later, 15,000 largemouth bass fingerlings had to be stocked in the creek by the Game and Fish Commission. The bass alone cost the Commission some $3,000 to put in.

Several other states have such laws, including Alabama, Florida and California. Not long ago, Florida received the largest settlement in the history of conservation for a spectacular fish kill on the Peace River, caused by phosphate mining, now proposed for Georgia.

How will such a bill help? There are two ways. First, it is felt that this would create a detriment to such pollution by making potential polluters more careful, realizing it would cost them to pay for the damage. Secondly, when the pollution does occur, the person or persons responsible for the damage would pay for what they themselves did . . . instead of the sportsman having to pay for something he doesn't get.

At present, when accidental pollution occurs, the person responsible is required to immediately contact the State Water Quality Control Board. Yet there is no way of penalizing an offender for either reporting too late to prevent damage or for failing to report at all. There is a need for a method to enforce this requirement, such as a stiff fine.

The Cordele incident points up the need for prompt reporting of such pollution. Had the Water Quality Control Board or the Game and Fish Commission been notified immediately, the insecticide could have been prevented from leaving the city's sewer system and entering a public stream until it had been treated and neutralized.

Even if this could not have been done in time, a temporary dam could have been placed in the stream above the fishing lake, preventing the big kill there. But no one cared enough to make a prompt report. There was no way to require anyone to report promptly. Thus, negligence was heaped upon negligence.

And the sportsman was the loser!

"Now, I'm going to catch the first bass of the day," I said determinedly, as Jack Wingate moved the boat some 30 feet into better position. I meant it all right—at least hopefully. Steady boy, I told myself, that old confidence is fine but don't go overboard on it.

My second cast sailed out, and I wheeled it in just a few feet when wham! "See, I told you!" I shouted, and hung on as the bass burrowed down into the waterweeds on the bottom of one of Lake Seminole's shallow "flats." But my moment of glory was destined to be short.

We were fishing in water about five feet deep. That is, if you included the last foot or two of water which was mostly taken up with weeds.

My rod arched sharply until I had to aim the rod butt more toward the fish as it began a run away from the boat. The run didn't last long, but the fish still wasn't coming my way. He did some figure-eights in the water, then turned to aerial acrobatics to prove me right in my diagnosis of his species.

Then he headed around the stern of the small fishing boat and I had to lift my rod over Jack's head, since I was sitting amidships and Jack was taking care of the motor.

The bass decided he liked the side of the boat from whence he came and reversed his field again. This time he was coming in too close to the boat though, and worn down enough that Jack could slip a thumb over his open jaw and hoist him aboard.

I snatched up the wet bass and had to admire him a bit before putting him on the stringer. My pocket scale showed him to be just a shade under four pounds.

My reverie didn't last but seconds. I was still trying to get my fumbling, icy fingers to open the clasp on the chain stringer when Jack broke into my moment of glory with "Now, I'm going to show you a REAL bass. This one's a big boy," he yelled.

I couldn't doubt his word as I watched the line slice its way through the water. The bass boiled several times before Jack was able to tame him enough to bring him alongside.

His thumb flawlessly clasped into the fish's mouth and Wingate hoisted a six and a half pounder into the boat. "I never use a net," he explained.

"Now it's your turn to add some weight to the stringer, Jim," I needled as Jack slid the stringer back into the ice cold water.

"Yeah," Jack joined in. "When are you going to start doing your share?"

Jim Morrison, sitting up in the bow of the boat all alone, just grunted. So far, we had two jackfish (chain pickerel) in addition to the bass apiece we'd just taken. But Jim hadn't done any of the damage.

Jim and I, who both are with the Georgia Game and Fish Commission's information office, had been in the Seminole area for a meeting. Needing to talk to Jack on a business matter we dropped in to see the proprietor of Wingate's Fishing Lodge.

We ended up staying overnight, and instead of heading straight home for the the weekend the next day, we accepted Jack's invitation to try the bass fishing.

Secretly, we had both had that idea in mind when we went to Wingate's Lodge in the first place, because we usually find him too busy to wet a line . . . and we'd been wanting to get a chance to see him do his stuff.

This time we were in luck, because it was the middle of January, last year, as slack as Wingate's season ever gets. Not only that, there had been ice all over trees, houses, streets, and highways when we'd left Atlanta the day before. It wasn't the kind of weather and the time of year that you get run over by a wild herd of fishermen on your way to the water. Nor were we in any great hurry to get back to that kind of weather. At least it was above freezing here—just barely.

I had made four previous trips to Lake Seminole, in the very southwest corner of Georgia, all to practically no success.

Bad weather and bad luck always seemed to follow me there. On one previous trip it had been more than 80 degrees the day I drove down, in February. That night the temperature dropped to 20, freezing water pipes. That kind of a temperature change had been too much for the bass.

This was typical of the kind of luck I'd had here. Not once had I ventured onto Seminole's vast watery plain without wearing at least two pair of pants, a sweater and a coat, and I still nearly froze. In all those trips I had taken only one small bass.

Once again I was dressed against the weather, as a cold north wind swept across the flats, under solid cloud cover. Occasional drizzle did not make it seem any warmer.

We pulled out of Jack's landing about 8 a.m., and he headed the boat across the Flint River arm of Seminole, pointing for Spring Creek.

An expert angler, Jack wasted little time in getting the first jackfish. He was using a new plug just out called "The Hot Spot," that is shaped and colored similar to a threadfin shad (a forage fish prominent in Georgia). The plug travels some three or four feet deep and gives off vibrations in the water when retrieved at fast speed, which fish are supposed to feel and thus are triggered into striking.

Morrison had one of the new plugs too, but I stuck to an old favorite of mine which works on the same principal, the Heddon Sonic. You could scarcely tell much difference in the two lures, actually.

But Jack was convinced the new version was the deadliest thing around. "You'll have to give up on yours and give my plug a try before long," he remarked.

Just to show him what my plug could do, I hauled in a jackfish of my own. Then we moved on to the spot where we caught the first two bass of the day.

Drifting the boat over the flats, we fired casts out in every direction. Although surrounded on all sides by standing dead timber that was flooded when the lake was formed, we fished out in the "open." But there was no worry about there being enough cover for the bass where we were fishing. The bottom of Seminole is paved with stumps, weeds and snags the like of which you'll not soon find anywhere else.

One look at this lake will put the average bass fisherman in a strait jacket—especially if he fishes it for a short while. A died-in-the-wool bassman getting his first crack at Seminole is like a pickpocket finding himself in a pants factory . . . he just doesn't know where to start. There are so many good looking places to try. But like the pickpocket, he'll find all the pockets don't have what he came for. You have to know a little about Seminole to catch the big ones consistently.

Seminole was formed when the Corps of Engineers put a dam across the Chattahoochee River right smack on the Georgia-Florida line. One end of the dam is in Georgia, the other in Florida. But actually, Florida has very little of the lake. Florida borders a large section of one side of the Chattahoochee River arm of the backwaters. Forming a huge V, the Flint River arm angles up toward the center of the Peach State. Branching off Flint River is Spring Creek, the hottest fishing section of the lake.

Spring Creek almost always has clear water in it, even when the rest of the lake is murky. Springs, along with the heavy vegetation around the shoreline, keep the water clean. You can usually see six to eight feet deep quite easily.

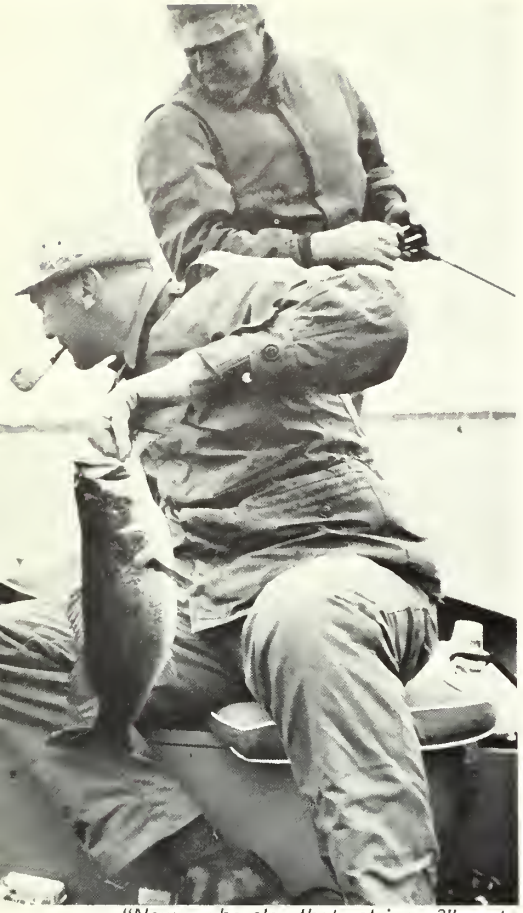
Seminole has another unique characteristic for Georgia lakes. More than half of the lake is less than seven feet deep. This makes it tricky for a boat operator. Unless he knows his way around, he dares not drive his boat very fast over most of the lake . . . he might hit a stump just under the surface. And it's no small puddle—it covers 37,500 acres.

The Corps didn't clear anywhere near all the land when they flooded Seminole, so acres of trees were left

JANUARY JACKPOT

Don't Give Up On Winter Fishing!

By Dean Wohlgemuth



"Now, where's that stringer?" asks author Wohlgemuth, with a cold January day's first Seminole bass—a fish just under four pounds.

Jack Wingate beams as he hoists his six and a half pounder over the gunwale. Though he's caught plenty of bigger bass here, this unexpected January bass was worth the smile.

standing above the surface of the water.

Jim broke the silence. "Got one," he shouted, as the boat drifted off a weed bed where there was only about a foot of water between the boat and the weeds. He had just cast beyond the shallow spot into deeper water. He pulled in a jackfish about a foot long, and pointed, grinning, to the new plug.

Between both of them, I was getting behind and I knew it, but I kept on flipping my plug out. We had tackle heavy enough to handle those big rascals among the weeds and stumps. Jim was using a regular size open face freshwater spinning reel, the Mitchell 300, with 15 pound test monofilament. I was using the same test line on a slightly larger Mitchell used for heavy freshwater or light saltwater fishing, while Jack stuck by his trusty Seminole favorite, a free spooling Mitchell 5000 casting reel with 25 pound test line.

Time began to pass more slowly. We got colder and colder, as we went fishless for a little more than an hour. Jack moved the boat three or four times, hoping to strike up some more action.

Finally, Jim's rod dipped sharply again, and he found himself tied to the other end of another good Seminole bass. This one tipped the scales to four and a half pounds. Jack picked up a couple more bass in the next spot or two, then we found a cove out of the wind a little, just before noon. Both Jim and I took jackfish in this spot, before Jack reluctantly suggested it was lunch time.

It was a long, cold ride back home, but we didn't notice the cold quite so bad now. That string of 10 fish, including six good bass and four jackfish, warmed us up a little. On the scales, the string weighed 27½ pounds. The six bass accounted for around 24 of those pounds—only one was less than three pounds, and it went about two. The three biggest bass together weighed 14 pounds. Jim and I had three a piece, and Jack led us with four—and the biggest, too. And we had fished only 3½ hours!

January may seem like an odd time of year to go after the bigmouth, but Seminole is a year-round lake. Not only that, it's a lake that may produce good fishing for bass with shallow running plugs every month in the year.

But probably the strangest characteristic for Seminole is that sometimes, February is the best month of all—though most of the bass lakes in the country--even most others in Georgia, are just too cold to produce fishing.

But there is a reason. Herb Wyatt, fisheries biologist for Georgia Game and Fish Commission in that section of the state, and a good friend of mine, explains the February phenomenon of Seminole this way. He says that even though it gets cold there in winter, cold snaps usually last only a few days. In between are nice, balmy springlike days, particularly in February. Temperatures in the high 70's or low 80's that time of year are not too rare.

Now, with Seminole being as shallow as it is, the water warms rather quickly. And in that clear water with the sun shining in, Mr. Bass warms up even more quickly than the water. It's sort of like sitting in a car in the sun in cold weather. The sun warms you, even though it's cold outside.

Now, all this warmth puts the bigmouth in the mood for love. He thinks about spawning and in preparation for this, he eats food like it will be a long time till his next meal . . . which it will.

But alas, before spawning actually begins, a cold spell steps in and puts him off the bed and off his appetite. A few days later the whole process is repeated, until finally, usually in early March, spawning efforts are successful.

Then the angler must wait till the bass are back off the bed and making up for lost time. Of course, not all bass bed at the same time so March, too, can be a good month. By April, nearly all the bass are back on their normal feed.

Since the lake is so shallow, it never stratifies. For this reason the fish may not be particularly deep even in the heat of summer. Of course there are deep holes, particularly those with springs in them, that are a cool haven in hot weather for bass.

Seminole has been listed among the top 100 bass lakes in the nation. It still ranks high in popularity and in numbers of bass produced. One of the reasons, no doubt, is because those Seminole bass are extra big.

Another reason is the challenge of the lake. It takes quite awhile to learn your way around it, and find the bass on your own. If you're a first-timer there, you'd be well advised to hire the services of a good local guide.

And Jim and I couldn't have had a better one than we had in Jack Wingate.

As we pulled up to his lodge for dinner, we noted another boat not far behind. Herb Wyatt, who had suffered cold spells with me on previous trips, trying to show me what Seminole could do, saw me on the dock and shouted.

"I might have known you were here, cold as it is!" he said. We didn't wait long to show him our stringer.

I sat inside the lodge moments later, thawing out. I felt pretty smug. Only a few days ago I looked out at the freezing rain and ice, bemoaning the long time until it was warm enough to go bass fishing.

Now, with this bass Jackpot in January, I had renewed patience to wait a little longer for spring. I felt I could face a little more winter now.

Photos by Ted Borg

tan your own hide!

By Marvin Tye

■ At one time in this country's history, the beaver was just about our most valuable wild animal. The search for beaver pelts led many trappers to explore our western wilderness and establish trails that would be used by settlers who followed them.

Today, the Georgia beaver is looked upon by many people as a pest whose fur is not worth the effort required to catch the animal and skin it. Local fur buyers don't pay high prices for these pelts. Many Georgians who might trap beavers are unaware of the higher prices paid by fur dealers in other sections of the country.

One company, Consolidated Raw Fur and Ginseng Company in New York, reported paying as much as $30.00 for well-prepared beaver pelts with combined lengths and widths equalling 69 inches or more. The price quotation was contained in a price list issued in February, 1968.

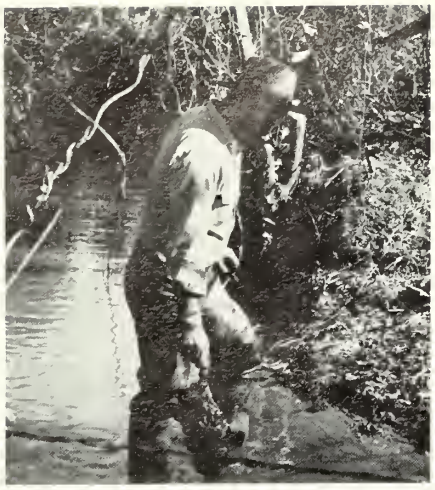
Not all pelts will bring this much money. Naturally, a large pelt will bring more money than a smaller pelt of the same quality. Above all, the pelt must be "well-prepared" or "well-handled." To the fur buyer, this means the pelt must be scraped of all fat, stretched round, dried, and cleaned.

In the final step after the excess flesh has been removed, the hide is stretched as nearly round as possible with nails placed about one inch apart around the edges. The holes left by removal of the legs are nailed closed. Mike Carter is holding the finished product that will bring the highest price from a fur dealer.

The first step is to cut the feet off at the wrist or ankle joints. Cut off the tail at the fur line and then cut the skin from the lip to the tail. Remove the skin from the carcass, and nail the fur taut onto a board, as nearly round as possible, with the nails about one inch apart. Next scraps all the fat, being very careful not to cut through the skin. Any cuts in the skin or rubbed spots on the fur decrease the value of the pelt. Remove a few nails at a time to scrape away the fat around them. Replace all nails after scraping. Use nails to close the holes left by removing the legs.

After the pelt has been scraped, it should be placed in a cool dry area for several days until it is completely dry. All this time it should be held to the board by nails as described earlier.

Wildlife ranger George Jones of Flowery Branch demonstrates proper steps in preparation of a beaver pelt in the photographs accompanying this article. George prefers to rough [illegible] the beaver, leaving a generous [illegible]



The industrious trapper can obtain a good mixed bag of beavers and muskrats from many areas in Georgia.

of flesh attached to the pelt, and then cleaning the flesh away afterwards.

Steel traps will readily take beavers, if the traps are properly managed. Trapping is a demanding art, and care should be taken to place traps where the beavers will be quickly drowned. Complete details on several methods of trapping can be obtained by requesting the book "Beaver and Muskrat Control" from the State Game and Fish Commission, 401 State Capitol, Atlanta, Georgia 30334.

Fur buyers offering the best prices for beaver pelts are:

Consolidated Raw Fur & Ginseng Co.
155-157 W. 29th Street
New York 1, N. Y.

Gerald Castner
Raw Fur Dealer
Box 13
Stillwater, N. J. 07875

George I. Fox Corporation
Fur Merchants
115 West 30th Street
New York, N. Y. 10001

Apap Fur House
R. D. 1, Box 101
Rhinebeck, N. Y. 12572

Saretsky & Co.
Raw Fur Merchants
206-208 West 29th St.
New York, N. Y. 10001

Benson Morton Fur Co.
206-208 West 29th Street
New York, N. Y. 10001

A complete list of fur buyers in a state can sometimes be obtained by writing to that state's game and fish commission.

Game and Fish Commission Ranger George Jones demonstrates the first steps in proper preparation of a beaver pelt for marketing—removing the feet and tail. He uses an ax to remove the feet at the ankle or wrist joints and a sharp knife to remove the tail at the point where it touches the hairline.

George removes the hide by cutting the underside up to the mouth, then removes the skin by peeling it back away from this incision. George prefers a "rough" skinning method which leaves a generous amount of flesh on the pelt at this stage.

The next step is to nail the pelt to a large board and remove the remaining flesh. Great care must be taken at this point to prevent cutting through the hide. Any holes in the hide would greatly reduce its value. The final step is shown on page 13.

the outdoor world

Phosphate Mining Bid Rejected by Board

The State Mineral Leasing Board has rejected a controversial mining lease proposal for offshore state-owned lands.

Meeting in Atlanta, the board voted not to consider any further bids for "state leasing of nearshore phosphate deposits at this time." A deposit check was returned to the Kerr-McGee Corporation of Atlanta, the only bidders.

The proposed lease stirred up a whirlwind of opposition from coastal residents, commercial and sport fishermen, hunters, boaters, conservationists, and governmental agencies.

The motion to reject the Kerr-McGee Corporation bid was made by Attorney General Arthur Bolton, vice-chairman of the Board, and seconded by Secretary of State Ben Fortson, secretary of the Board. Governor Lester Maddox presided at the meeting.

When the mining proposal was first presented to the Mineral Leasing Board in mid-summer of 1968, it was vigorously opposed by Game and Fish Commission Director George T. Bagby. In two appearances before public hearings on the issue, Bagby said that the proposed mining would result in an economic loss to Georgia of more than 15 million dollars a year, and would cause the permanent destruction of more than one-twelfth of the Georgia coast for seafood production and sport fishing.

As a result of the mining proposal, State Representative Reid Harris of Brunswick has announced plans to introduce legislation into the General Assembly during the current session designed to preserve Georgia's marshlands.—**Jim Morrison**

Survey Proves Dog Losses Run High

At least 15 per cent as many deer were killed by wild dogs last year as were killed legally by hunters. Probably many more deer than that actually were victims of wild and vicious canines.

In an effort to obtain more concrete information relating to the problem of dogs killing deer, the State Game and Fish Commission is conducting a survey of all wildlife rangers in the state. Rangers were asked to report their estimate of cases where a deer was killed by dogs.

Of 150 rangers reporting so far, 131 of Georgia's counties were reported to have a problem with deer being killed with dogs. Rangers said they believed that the problem is increasing in 117 of these 131 counties.

The survey showed that 3,029 deer were estimated by county wildlife rangers to have been killed in the state during the past year by dogs. This represents 15 per cent, or about one deer for every seven killed legally by hunters. The legal kill by hunters last year approached 20,000, said Charles M. Marshall, Commission game biologist who is in charge of collecting survey data and processing it for the Commission.

The Georgia House of Representatives Wild Dog Study Committee has released information regarding legislation which will be submitted to the upcoming session of the General Assembly to help curb the vast wild dog problem.

Bills to be proposed by this committee, chaired by Representative Howard Rainey of Cordele, would provide for prohibiting abandoning of live dogs, would require the state's rabies control law to operate statewide with a 50-cent fee for inoculations, set up a program of dog wardens and dog pounds in each county, and would require dogs to wear a collar or harness with a rabies tag attached, or be tattooed in the ear with the owner's name and address.

Protection for pets and hunting dogs will be provided for in the legislation by making it a misdemeanor to harm a dog unless necessary in the protection of life and property.

Also livestock owners will have a civil remedy against owners or custodians of dogs for damages incurred by dogs.

Members of the committee, in addition to Rainey, include Representatives Kent Dickinson, Douglasville; Richard Scarlett, Brunswick; Henry Reaves, Quitman; Jack Shuman, Pembroke; Burton Wamble, Cairo; and Dewey Rush, Glennville.

Copies of the committee's report may be obtained from Paul S. Liston, Office of Legislative Counsel, 316 State Capitol, Atlanta.—**Dean Wohlgemuth**

Legislative Committee Studies Gun Laws

A Georgia Legislative committee has begun hearings on possible new gun laws for Georgia.

The chairman of the House Firearms Control Safety Committee, State Representative Billy Lee of Albany, says that his committee is considering several proposals in the field.

"We are thinking about a firearms standards type of law designed to insure the public that any firearms they buy are safe firearms that meet recognized safety standards," Lee said.

At a recent meeting of the committee in Atlanta (Wednesday, November 20), several witnesses testified that such a law could be used to stop legal sales of cheap .22 caliber foreign-made pistols used in a number of Atlanta murders among low income groups.

"Of those who appeared, everyone has opposed a firearms registration law," Lee said. Several committee members present also expressed doubts that a registration law for guns would be effective in halting crime, while citing the high costs of administering such a program.

"A proposal was made for an owners registration law or firearms owners identification system, as compared to a firearms registration law," Lee added. He said that the committee had not made any decision on sponsoring that or any other legislation.

Among those testifying at the hearing was Atlanta lawyer James L. Adams, who is president of the Georgia Sportsmen's Federation. Adams said that his group was opposed to any type of firearms registration system.

"I don't see any way in the world that registering firearms will stop professional criminals from acquiring guns," Adams said. "And I don't believe that the time has come in Georgia for a firearms owner identification system. My group is opposed to any type of legislation that will unduly burden sportsmen while not stopping crime."

Chairman Lee said that the group planned to have another meeting before the General Assembly convenes in January, but that a date had not been set. He invited anyone interested in expressing their views on possible gun laws to contact him or any of the committee members.

In addition to Lee, other members of the committee include representatives Tom Dillon, Atlanta; Thomas A. Roach, Ball Ground; Mobley Howell, Blakely; and Dr. J. H. Henderson, Marietta.

—**Jim Morrison**

Sportsmen Speak...

Letters to Sportsmen Speak

Game & Fish welcomes expressions of opinion from its readers. Letters should be as short and concise as possible. Due to limited space, not all letters can be used.

POLITICS

Why must every publication and event in Georgia be tainted with political tomfoolery and crony-ism? Your magazine is no exception to the rule. Please, no more gun control articles or letters. The logic of both sides does not warrant the space in your magazine. Print articles of outdoor interest—not political interest. Georgians have already proved their great love for guns. The wild dog controversy falls into the same category.

Instead, why not offer camping tips, safety ideas, etc. I call for the separation of politics and nature. Overlooking this infamous fault found with most of my fellow Georgians, your magazine is quite good.

William R. Edmiston
Tucker, Georgia

We have not always agreed with Governor Maddox on all of his viewpoints. However, when he speaks so sensibly on the issue of gun control, we are in complete agreement with him, and with any of our readers who write in expressing their views against stupid gun law proposals. This is a case where politics cannot be separated from conservation if we are to retain the legal right to hunt in the future.

The wild dog situation is another very good example. If we are afraid to speak out on the subject that is doing the most damage to Georgia's wildlife resources, all of the camping tips and safety ideas in the world will not prevent us from losing the deer hunting that makes these items necessary and possible for thousands of our citizens.

If we do not speak out through the magazine and through the forms of communication available to the Commission about these urgent conservation issues, we cannot expect anyone else to do it for us.

DOGS

To see that the dog problem is not new, see National Geographic Magazine, Pg. 275, 1919.

R. J. Weaver
Athens, Georgia

CAPTIVITY CRUEL?

It has come to my attention through the November, 1968 issue of **Georgia Game & Fish** that the Commission provided a wildlife exhibit at Jasper County's Deer Festival. It was appalling to see the cramped cages in which the bobcat and deer were confined. I think you will agree, the Game Commission should be setting the standard for the entire state. The commissions of many states have adopted laws governing minimum standards for wildlife held in captivity. Having established these laws, the respective commissions can not expect the citizens of the state to abide by the laws when they do not meet the requirements themselves.

The bobcat in the photograph was typical of an animal that was disturbed and frightened. It is no wonder though, as the animal was confined to a small cage in which there was apparently no retreat from its most dreaded enemy—man. I also fail to see how the exhibit can be justified as being educational when the subject is surrounded by wire mesh. Anyone leaving the exhibit would have no idea what the bobcat's or deer's niche is. In an undersized cage they become no more than living specimens. If that is to be the case, why not use mounted specimens? It would be less inhumane, and they would last for many years. In addition they would be much less trouble to keep and at a fraction of the present expense.

The deer was no better off than the bobcat. The low overhead wire prevents the animal from indulging in any kind of activity. We all know deer are characteristically timid and skittish, and there are many documented cases where a barking dog or excited children have driven an animal to its own demise. I would hope that the animals are kept in more spacious cages when they are not on exhibit. I feel sure that we both are interested in what is best for our wildlife. It is good to know that what is best for our wildlife is also best for the viewing public.

Jeffrey P. Smith
Field Representative
Defenders of Wildlife
Washington, D. C.

BACK COPIES

Thank you very much for the copies of the September issue of **Georgia Game and Fish,** which your secretary was so gracious and prompt in sending me. My husband and I had just returned from a marvelous week-end with Edith and Rick Ferguson, and we enjoyed your description and history of this beautiful, unspoiled island, which we'd read in our son's copy of the magazine. We've shared your article with out-of-state friends and relatives, and I'm sure they envy you and us!

Thanks again, for your generous gift of the copies.

Frances Symmers
Atlanta, Georgia

While they last, back issues of Game and Fish are available. Articles in out of print issues can be copied or reprinted on request.

General Assembly *continued*

4. *Increased Budget.*

In order to meet expanding demands on the State Game and Fish Commission, the Commission's annual budget should be increased by approximately one and one-half million dollars. These additional funds are needed to hire and equip 56 new employees, including 14 new rangers, 5 biologists, biological aides, clerks, equipment operators, radio operators, and several other positions demanded by modern conservation programs. These new personnel will require 48 new vehicles, plus boats, uniforms, etc. Replacements for existing equipment must be acquired at inflated prices. Two public fishing areas costing $175,000 each should be built, along with renovation and modernization of the rest of the Commission's nine fish hatcheries. A minimum of three new game management areas should be established in the next year. A new district office is badly needed at Gainesville. These are but a few of the urgent need of the Department.

5. *Defeat of Unwise Gun Control Bills.*

Well documented statistical studies of areas with harsh gun laws have clearly shown no effect on crime rates. Law enforcement officers freely admit that gun registration does not *prevent* crime, and that it has little value in solving crimes, since the few weapons left at the scene of a crime can already be traced through dealer records already required by federal law. Less objectionable gun owner identification systems (as opposed to registration of individual guns) are ineffective as well in preventing undesirable persons from obtaining firearms because of a lack of central record keeping on criminals, mental patients, dope addicts, alcoholics, etc. It is doubtful if proposed laws to ban the sale of cheap imported .22 pistols will be effective either, due to the widespread blackmarket in these guns already in operation. Since gun laws have been proven to be ineffective in reducing crime, placing restrictions on Georgia's law abiding sportsmen is foolish.—J.M.

Sportsman's Calendar

SEASONS NOW OPEN

DOVES

Season—Dec. 6, 1968 through Jan. 15, 1969.
Bag Limit—12 Daily, possession limit 24.

DUCKS, MERGANSERS AND COOTS

Season—Dec. 7, 1968 through Jan. 15, 1969.
Bag Limit—Ducks; 4 Daily, including no more than 2 wood ducks, 1 canvasback, or 1 redhead, 2 black ducks, and 2 mallards. Possession limit 8 including no more than 4 wood ducks, 1 canvasback or 1 redhead, four black ducks, and 4 mallards. Mergansers: 5 Daily, including no more than 1 hooded merganser; possession limit 10, including no more than 2 hooded mergansers. Coots: 10 Daily, possession limit 20.

GEESE AND BRANT

Season—Dec. 7, 1968 through Jan. 25, 1969.
Bag Limit—Geese; 1 Daily, possession limit 2. Brant: 6 Daily, possession limit 6.

GROUSE, RUFFED

Season—Oct. 14, 1968 through Jan. 31, 1969.
Bag Limit—3 Daily, possession limit 6.

OPOSSUM

Season—Oct. 14, 1968 through Feb. 28, 1969.
Bag Limit—None.

QUAIL

Season—November 18, 1968 through March 1, 1969.
Bag Limit—12 daily, possession limit, 36.

RABBITS

N. Ga. Season—November 18, 1968 through January 31, 1969.
N. Ga. Bag Limit—5 daily.
S. Ga. Season—November 18, 1968 through February 28, 1969.
S. Ga. Bag Limit—10 daily.

RACCOON

N. Ga. Season—Oct. 14, 1968 through Feb. 28, 1969.
Bag Limit—One (1) per person per night.

SQUIRREL

Season—Oct. 14, 1968 through Feb. 28, 1969.
Bag Limit—10 Daily.

TURKEY

S. W. Ga. Season—November 18, 1968 through March 1, 1969 in Baker, Calhoun, Decatur, Dougherty, Early, Grady, Miller, Mitchell, Seminole, and Thomas counties.
S. W. Ga. Bag Limit—Two (2) per season.

ALTAMAHA WATERFOWL AREA (DARIEN)

Butler Island Managed Blind Duck Hunts: Tuesdays and Saturdays only, Dec. 7, 1968 through Jan. 15, 1969. Hunting hours 30 minutes before sunrise to 12 noon, E.S.T. After Nov. 1, applications to hunts not filled in the October drawing will be accepted on a first come, first served basis. For information on which hunts are filled, call the State Game and Fish Commission at Brunswick, area code 912, 265-1552.

All letters of application must specify the date requested with a second choice if desired in the event the first date is filled. All applicants must enclose a fee of $5 per day per person in check or money order payable to the Georgia Game and Fish Commission. Applications should be addressed to P. O. Box 1097, Brunswick, Ga.

SMALL GAME MANAGED HUNTS SCHEDULE

(For detailed information on each individual area, write the State Game and Fish Commission, 401 State Capitol, Atlanta, Ga. 30334.) No permits required, except Butler Island ducks and raccoons.

DATES	*AREAS*	*SPECIES*
Reg. season	Lake Seminole, Whitesburg, Allatoona, Altamaha (except Butler Island), Cohutta, Grand Bay, Brunswick Pulp and Paper Co.	All (except raccoons)
Dec. 7-Jan. 15 Tues. & Sat.	Altamaha (Butler Island)	Waterfowl
Dec. 6-Jan. 25 Fri. & Sat.	Swallow Creek, Coleman River	Grouse, Squirrel, Rabbit
Dec. 28-Jan. 31 Wed. & Sat.	Piedmont Exp. Sta.	Quail, Squirrel, Rabbit, Doves (In season)
Jan. 4, 8, 11, 15, 18 Wed. & Sat.	Cedar Creek	Quail, Squirrel, Rabbit, Doves (In season)
Jan. 2, 4, 9, 11, 16, 18, 23, 25, 30	Bullard Creek	Quail, Squirrel, Rabbit, Dove, & Snipe (In season)
Jan. 20-25	Arabia Bay	Quail, Squirrel, Rabbit
Jan. 1-Feb. 1 Wed. & Sat.	Oaky Woods	Quail, Squirrel, Rabbit
Jan. 4, 8, 11	Clark Hill	Quail, Squirrel, Rabbit, Doves, Ducks (In season)

TIDE TABLE

JAN.-FEB. 1969

GEORGIA COASTAL WATERS

HOW TO USE THESE TABLES

The calculations are for the outer bar. Find the reading for the desired tide. In the table below find the number of minutes to add to correct for the place you are going to fish or swim. The outer bar calculation, plus this correction, gives the correct reading for the point desired.

Adjust For Daylight Saving Time By Adding One Hour

CORRECTION TABLE

The times given are for Savannah River entrance (Tybee).

	Hrs	Min
Savannah (High)	0	44
Savannah (Low)		57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabaw Sound	0	05
Vernon View	0	35
Coffee Bluff	0	55
Ogeechee River Bridge	3	50
St. Catherine Sound	0	25
Sapelo Sound	0	00
Brunswick Bar	0	00

	First Quarter	Full Moon	Last Quarter	New Moon
JANUARY	18	3	11	25
FEBRUARY	16	2	10	24

JANUARY, 1969

Day	HIGH WATER A.M.	HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Wed.	6:18	6.9	6:36	5.6	12:00 (Midnight)	12:36
2. Thurs.	7:00	7.0	7:18	5.6	12.42	1:24
3. Fri.	7:36	7.1	7:54	5.6	1:24	2:06
4. Sat.	8:12	7.1	8.30	5.7	2:06	2:42
5. Sun.	8:48	7.0	9:06	5.7	2.48	3.24
6. Mon.	9:24	6.9	9:42	5.8	3.24	4.00
7. Tues.	10:00	6.8	10:24	5.9	4:06	4:36
8. Wed.	10:42	6.6	11:06	6.0	4:48	5:12
9. Thurs.	11:30	6.4			5:30	5:54
10. Fri.	12:00 (Midnight)	6.2	12:18	6.3	6:24	6:42
11. Sat.	12:48	6.4	1:06	6.1	7:24	7:36
12. Sun.	1:48	6.5	2:06	6.0	8:30	8:42
13. Mon.	2:54	6.7	3:12	5.9	9:36	9:42
14. Tues.	4:06	7.0	4:18	5.9	10:36	10:42
15. Wed.	5:12	7.4	5:30	6.2	11:42	11:42
16. Thurs.	6:18	7.7	6:30	6.5		12:36
17. Fri.	7:12	8.0	7:30	6.8	12:42	1:36
18. Sat.	8:06	8.1	8:24	7.0	1:42	2:30
19. Sun.	9:00	8.0	9:12	7.1	2:36	3:18
20. Mon.	9:48	7.8	10:06	7.0	3:30	4:06
21. Tues.	10:36	7.4	10:54	6.9	4:18	4:48
22. Wed.	11:24	6.9	11:42	6.7	5:06	6:36
23. Thurs.			12:12	6.5	6:00	6:24
24. Fri.	12:36	6.5	12:54	6.0	6:48	7:12
25. Sat.	1:24	6.3	1:42	5.6	7:42	8:06
26. Sun.	2:12	6.2	2:36	5.3	8:42	8:54
27. Mon.	3:06	6.1	3:30	5.1	9:36	9:48
28. Tues.	4:06	6.1	4:30	5.0	10:30	10:36
29. Wed.	5:00	6.2	5:24	5.1	11:24	11:30
30. Thurs.	5:54	6.5	6:12	5.3		12:12
31. Fri.	6:36	6.7	6:54	5.5	12:12	12:54

FEBRUARY, 1969

Day	HIGH WATER A.M.	HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Sat.	7:12	6.8	7:36	5.7	1:00	1:36
2. Sun.	7:48	6.9	8:06	5.9	1:42	2:18
3. Mon.	8:24	7.0	8:42	6.1	2:24	2:54
4. Tues.	9:00	6.9	9:18	6.3	3:06	3:30
5. Wed.	9:36	6.8	9:54	6.5	3:48	4:06
6. Thurs.	10:18	6.6	10:42	6.6	4:24	4:42
7. Fri.	11:00	6.4	11:30	6.6	5:12	5:24
8. Sat.	11:48	6.2			6:00	6:06
9. Sun.	12:42	6.6	12:42	5.9	7:00	7:06
10. Mon.	1:24	6.6	1:42	5.7	8:06	8:12
11. Tues.	2:36	6.6	2:54	5.6	9:18	9:24
12. Wed.	3:48	6.7	4:06	5.7	10:24	10:36
13. Thurs.	5:06	7.0	5:24	6.1	11:24	11:36
14. Fri.	6:12	7.4	6:24	6.5		12:24
15. Sat.	7:06	7.7	7:18	7.0	12:36	1:18
16. Sun.	7:54	7.9	8:06	7.3	1:30	2:06
17. Mon.	8:42	7.8	8:54	7.4	2:24	2:54
18. Tues.	9:24	7.6	9:36	7.4	3:12	3:36
19. Wed.	10:06	7.2	10:24	7.2	3:54	4:18
20. Thurs.	10:48	6.7	11:06	7.0	4:42	5:00
21. Fri.	11:30	6.2	11.48	6.7	5:24	5:42
22. Sat.			12:12	5.8	6:12	6:24
23. Sun.	12:36	6.4	12:54	5.4	7:00	7 18
24. Mon.	1 24	6.1	1:42	5.1	8:00	8:12
25. Tues.	2:18	6.0	2:42	4.9	9:00	9:12
26. Wed.	3:18	5.9	3:48	4.9	9:54	10 06
27. Thurs.	4:18	6.0	4:54	5.1	10:54	11:00
28. Fri.	5 18	6.3	5:48	5.5	11:36	11:48

To report violations or if you need assistance in the Coastal Area—Call—State Game & Fish Commission, Brunswick, Georgia P. O. Box 1097, Phone 265-1552, Savannah 233-2383, Richmond Hill 756-3679

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GAME & FISH

February 1969 Volume IV Number 2

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ARE "WILD" DOGS THE PROBLEM?

During the past three years, *Game and Fish* has led the way in waking up Georgia's sportsmen and the public in general to the damage being done to wildlife and livestock by out of control dogs. Recent surveys of wildlife rangers show that the already critical problem is increasing.

At last, something is being done about it. Public opinion has been crystallized, and the demand for corrective action has been heard in the appropriate quarters.

Last year, the House Wild Dog Study Committee was created by a resolution offered by Representative Howard Rainey of Cordele, chairman of the House Game and Fish Committee. Rainey also served as chairman of an interim study committee in 1967 that resulted in a complete recodification and modernization of Georgia's game and fish laws.

Rainey's committee conducted a series of public hearings throughout Georgia to sound out public opinion on the problem and its solution. As a result, it drafted a committee report on the problem calling for corrective legislation. The committee drafted two bills for introduction in the General Assembly this year. Both measures and their provisions should receive the serious attention of legislators and sportsmen alike.

Following publication of the article "Hounds of Hell" in our December issue, letters and comments by readers indicated that several important facts didn't receive enough emphasis.

One of the most important is that while "wild" dogs are a growing problem in Georgia, most of the damage now being done to wildlife and livestock is caused by domestic dogs that are "owned" by someone. Usually mongrel "yard dogs," the animals often are ill-fed, poorly kept possessions of low income persons who are scarcely able to feed their families, let alone a pack of mangy animals. Frequently, these persons keep little or no control over the meanderings of their animals in search of food, and do not hesitate to abandon such dogs if the owner moves or grows tired of "feeding" them. Such dogs provide a constant source of supply for Georgia's growing wild dog population, replacing animals that starve to death in the woods and don't survive.

It is this problem that a dog license and fee such as that proposed by the Study Committee and the Georgia Animal Damage Advisory Committee would be most valuable in solving. Thousands of such unwanted animals would be removed from the population immediately if their owners are required to pay a license fee for each dog, in addition to having it vaccinated and purchasing a collar for each dog with the owner's name and address. This value of the fee and license and identification require-

Continued on Page 14

ON THE COVER: Georgia's early spring (or late winter) fishing in North Georgia is for the greenish-bronze walleye, frequently called pike. Walleye are most plentiful in Hartwell, Lake Burton, and Blue Ridge, where they are caught on spawning runs up tributary streams. Yellow or white jigs bounced off the rocks make the best lures. Painting by Duane Raver.

ON THE BACK COVER: Georgia's third largest and most colorful woodpecker, the yellow-bellied sapsucker. Sapsuckers drill a straight line of holes around a tree, then come back later to eat the sap and insects that have been attracted to it. Sapsuckers are distinguished from other woodpeckers by the white stripe on a black wing. This one is a male, as shown by the red patch on the throat. Photo by Dan Sudia of Atlanta.

PHOTO CREDITS: Ted Borg 1, 2, 3, 4, 5, l. & b., 6 t. & c., 7, 8, 9, 17; Wilson Hall 10, 11, 13; Ollie Knott, Ga. Forestry Commission 6 b.; Jim Morrison 14; Don Pfitzer, U.S. Bureau of Sport Fisheries and Wildlife 5 t. r.;

Seminole Sentinel

Georgia's Ranger of the Year

By J. Hall

"And just who do you think you are anyway, you unmentionable?" By now, the woman had worked up a full head of steam and her boilers were bulging ominously. There were flecks of foam at the corners of her heavily lipsticked mouth, and the wattles on her neck jiggled furiously. The floating dock plunged and wallowed in the water beneath her.

"I've never in all my unspeakable life seen such an unutterable unpronounceable! Why don't you unspeakable yourself, you unremarkable ungrammatical!"

The whip-lean ranger writing the citation braced himself on the heaving dock. The broad grin spreading across his weather-beaten face was his only apparent reaction to the vituperations being flung at his head and the growing number of curiously appalled spectators gathering on the shore. At her last remark, several mothers were seen scurrying younger children from the scene. The ranger's grin widened even further, but now there was the barest suggestion of fang at its extremities.

Then he was finished and tore off the ticket, gazing at the woman with a beautific expression. His bow was only slightly exaggerated as he handed it to her and said, "Madam, I thank you." Then he turned, and with head high, walked victoriously through the crowd, and only a strange light in his eyes and a slight twitching of a jaw muscle gave evidence of any emotion.

[illegible] Wingate, the Archbishop of [illegible]eminole, who described the in[illegible] me, still recalled it vividly [illegible] be slightly breathless. "J, I've [illegible] Navy, I've been around fish[illegible]ers, drunks, and a wide as[illegible]haracters in my time, and [illegible]ny of 'em cuss like that [illegible] ripped an' snorted an' [illegible] like a scalded cat, an' [illegible]ned a hair. He just [illegible]ritin'." Jack consid[illegible] you the truth, he [illegible]o memorize it as [illegible]

Lt. Wilkin estimates that about 75 percent of his time is spent patrolling the dangerous waters of Lake Seminole. Wilkin checks an angler's license while his fishing partner looks on apprehensively. Gordon assured him that everything was legal, however. Dogs aren't required to have fishing licenses!

Writing a citation for a boating violation is just one of the myriad duties of a Wildlife Ranger, but Gordon Wilkin, who was recently selected as Georgia's Ranger of the Year, is quick to tell you that they're not all as unpleasant as that one was. In fact, Gordon is high in praise of the citizens and sportsmen in the counties where he works. They are equally quick to tell you of their respect and esteem for him.

Each year, one of the more than 150 Wildlife Rangers of the Georgia Game and Fish Commission is selected as outstanding because of the work he has done and his efforts in the promotion of wildlife conservation in the state. In naming Gordon Wilkin as Georgia's Ranger of the Year at the conference of the Southeastern Association of Game and Fish Commissioners at Baltimore, Maryland, State Game and Fish Commission Director George T. Bagby commended him on the outstanding performance of his duties.

In later ceremonies, Wilkin was presented a certificate of commendation as Outstanding Law Enforcement Officer in Georgia, and a check for $50.00, by the Shikar-Safari International Awards Committee, which each year selects commendable conservation officers throughout the United States and foreign countries.

Earlier, Ranger Wilkin had received further distinction. He was promoted to the rank of lieutenant, and commissioned Assistant Chief of the Dawson District. In addition to his duties as Wildlife Ranger of Decatur County, Lt. Wilkin has supervisory responsibility over Miller, Early, Seminole, Grady, Thomas, Mitchell and Baker Counties.

Gordon Wilkin graduated from Miller County High School in 1941. While in school, he played football, basketball, baseball, won the State Championship for pole vaulting in track, and still found time for his favorite hobbies, hunting and fishing. After graduating, he enlisted in the Navy and was attached to the Marine Corps as a medical corpsman, serving in the Pacific.

Following his discharge from the service, Wilkin was offered a football scholarship at the University of Georgia. He declined this, instead taking a job with the City of Atlanta Recreation Department. Later, he attended South Georgia College at Douglas. Prior to his employment with the State Game and Fish Commission in 1960, Lt. Wilkin owned the Quality Dry Cleaning Company in Colquitt.

As a Wildlife Ranger, one of Lt. Wilkin's primary responsibilities is the area of Lake Seminole. A large portion of his time is devoted to patrolling the water and the miles of shoreline. In addition to the numbers of fishermen who regularly flock to the productive lake, Wilkin says there is excellent hunting for quail, dove, waterfowl, deer and small game in the surrounding area. It keeps him busy checking on hunters and fishermen, enforcing boating safety regulations, and assisting the sportsmen who come to Lake Seminole from all parts of the country.

That he does a good job is evident from the comments of those who know him best. Jack Wingate, owner of Wingate's Fishing Camp at Lake Seminole, is most complimentary.

"He's a good man, J. This is a dangerous lake. It'll kill you if you get careless with it. Gordon knows that, an' you're just not gonna get very careless with him around. He's done more than anybody I know to promote boating safety and calm down the few 'nuts' you'll find around any lake. He's a worker too. He roams, day an' night, an' he knows what's goin' on. There've been several of these smart night hunters an' fishermen usin' nets that thought they had him foxed. They thought different, though, when he eased up on 'em when they never thought he was around."

Jack told of one group of deer hunters who were "jacklighting" deer on one of the many islands in the lake. Gordon discovered their boat pulled up on the beach of the island, well after midnight. He towed their boat away, and was waiting for them when they finally swam back to shore. Jack chuckled. "I sure would'a like to have seen those guys' faces. It was colder'n H . . . too!"

One thing that stands out among any comments about Gordon Wilkin is his fairness. "He's the fairest fellow I've ever seen, J. And he's that way with everybody, says Jack Wingate, who has been cited by Wilkin for a violation on one of his fishing boats! Herb Wyatt, biologist for the Commission who frequently works with Gordon, told me, "J, he'll make a case against me or you or the Governor just as fast as he would against anybody else. He's fair, and he's impartial!"

Lt. Wilkin states he is grateful and especially proud of the folks in his area because in his words, "They are good sportsmen. Most of 'em know what the Game and Fish Commission is tryin' to do and why it's important. I get a lot of support and cooperation, both from the citizens, the sheriff's department, and the other law enforcement agencies. It sure makes my work easier to know that folks are interested and want to obey the law."

Gordon Wilkin lives at Colquitt with his wife Barbara, who is librarian at the Miller County High School. There have two children, Rhonda, 10, and Wayne, 20, who recently graduated from Gordon Military College and entered the University of Georgia as a Junior. As the final compliment, it appears that Wayne has inherited his dad's love of the outdoors and is following in his footsteps. He is majoring in wildlife management at the University.

Shine Pond on the Grand Bay area. Rumored habitat for alligator w

GRAND BAY

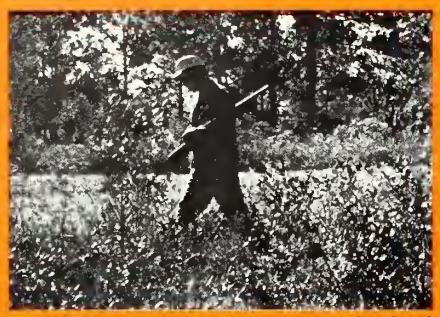
GEORGIA'S NEWEST PUBLIC HUNTING AREA

By Marvin Tye

"He's coming your way," Charlie Marshall yelled. I raised my shotgun and tried to locate a rabbit fleeing in my direction. I hesitated a second too long and the rabbit was out of range. This was the third that we had jumped in this short afternoon hunt on the Grand Bay Public Hunting area near Valdosta. A short time later I got another chance and didn't hesitate to fire, adding one more cottontail to our bag. All of this couldn't be termed spectacular hunting by any means. We figured we had pretty fair success for hunting an area such as this without dogs.

Charlie, *Game and Fish* photographer Ted Borg, and I were visiting this area to evaluate the hunting, photograph the area and obtain a few cottontail specimens for Charlie's use in a game cleaning story to be carried in this issue of Georgia Game and Fish.

The Grand Bay Public Hunting Area, formerly a part of Moody Air Force Base, was created early in 1968. It consists of 5,866 acres of National Forest land in Lowndes and Lanier Counties, primarily flat pine and dense palmetto with hardwood creek bottoms. J. L. Rentz, Lake Park, Ga., is the area manager. The area offers hunting for all species of small game which can legally be hunted in these two counties. There are no developed campsites, but camping is permitted. The nearest state park is Reed Bingham off Georgia Highway 37 between Adel and Moultrie.



Edge type cover is ideal for quail. Quail hunting on Grand Bay is good, but not the best in the state. Biologists hope to improve it by controlled burning, planting food plots and other management methods.

South Georgia Regional Game Supervisor Frank Parrish rates rabbit hunting good, squirrel hunting excellent, and quail hunting fair. Frank says Grand Bay is a public hunting area in the strictest sense of the world. No permit is required for hunting the area. Hunters may go on and off the area without checking in or out and hunt small game by any method legal in the two counties. Dogs may be used for hunting quail, rabbit or any other small game. Raccoon hunting is allowed, and is rated as good. Shiner Pond on the area offers some duck hunting, but that is rated by Parrish as fair to poor. Good dove hunting can sometimes be found along the edges of the abandoned Bemis Landing Strip.

There are a couple of house sites on the area that have native coveys of quail. The area is not really large enough to produce excellent quail hunting. The quail population can be increased by proper management programs such as controlled burning. Deer were stocked on the area in 1963. Although the deer population is not yet large enough to permit hunting, fawns have been spotted on Grand Bay and the number of deer seems to be increasing. Deer hunting will probably be allowed when the herd grows to huntable numbers.

New signs are being placed at the entrances to the area. Yellow signs mark the boundaries. To reach the Grand Bay Area from Valdosta, take Georgia Highway 125 to Barretts Community. Turn east at sign and follow dirt road 2 miles to management area. Other entrances to the area are found 7 miles southwest of Lakeland, Georgia on U. S. Highway 221 and 10 miles northeast of Valdosta on U. S. Highway 221.

The Grand Bay Area is the 25th major hunting area to be established in Georgia and the third to be established since 1967. There are now a total of 673,566 acres of public hunting areas in the state.

An abandoned landing strip on the Grand Bay area has now reverted to wild grasses and weeds. The edge of this field is good quail habitat.

Hunters working the edges of cover are likely to jump rabbits at any time. Hunting with dogs is allowed on Grand Bay, and is usually more productive.

Good hunting for cottontail rabbits, quail and other species, is found on the new Commission area.

Jim Cline, 4-H Club member from Cherokee County, was the Youth Conservationist of the Year winner for the entire state. In addition to a handsome trophy, young Cline received a Sears Roebuck automatic shotgun, which was presented by Gov. Lester G. Maddox.

James Silver, former regional director of the U.S. Bureau of Sport Fisheries and Wildlife, Southeastern Region headquartered in Atlanta, was the recipient of the Sportsman's Federation's Wildlife Conservationist of the Year award. Silver, now retired, lives in Florida.

Sportsmen's Federation Convention

UNITED WE STAND

By Dean Wohlgemuth

■ Accomplishments during the past year by conservation groups in the state were pretty well summed up in the overall theme of this year's convention of the Georgia's Sportsmen's Federation, held in December at Macon.

The Federation's theme was "Band Together For Conservation," and a highlight of the program was a panel discussion with high officials of various conservation agencies sitting on the panel.

Agencies represented on the panel, with the support of the Federation, won

New officers elected by the Georgia Sportsman's Federation at the annual convention in Macon, are from left, Clyde Greenway, Tucker, first vice president; Tommy Holliman, Thomaston, president; and Jim Adams, Tucker, executive secretary. Holliman, who succeeded Adams in the top spot, was also Adams' predecessor.

a major conservation battle late in the year when the State Mineral Leasing Commission refused a bid to mine phosphates in Georgia's marshlands. Most of the represented agencies, as well as the Federation, strongly opposed the mining proposal.

In addition, cooperation between the sportsmen and some of the represented agencies, has resulted in the drafting of a proposed bill to curb the wild dog problem which annually robs sportsmen of a great deal of wildlife.

These two are the best examples of combined efforts on the part of several organizations for the benefit of conservation, during the past year.

Such efforts were reflected in the resolutions passed during the Federation's business meeting. In their resolutions, the Federation called for:

—"The General Assembly to enact adequate laws to protect the coastal wetlands of Georgia;"

—"The General Assembly to enact suitable laws for dog control;"

—"(The Federation to) Oppose all further restrictive firearms controls but recommends that violators of present firearms control laws be required, upon conviction, to serve the maximum sentence provided by law without probation or parole;"

—"The State Board of Education and the Department of Education be requested to provide financial and staff assistance to the existing program of summer courses for teachers in natural resource use.

"BE IT FURTHER RESOLVED, that the Board of Regents of the University System, and the governing bodies of other colleges and universities in the State, initiate a program of instruction in natural resource use for all education majors in their respective institutions, and that the necessary funds and personnel for such urgently needed programs be provided as soon as feasible."

Tommy Holliman, Thomaston, who had served as the Federation president for more than 3 years, was once again elected to the organization's highest office. Jim Adams, Tucker, who succeeded Holliman two years ago, and held the post since, was elected executive secretary. Clyde Greenway of Tucker was re-elected first vice president.

Speakers on the program included Governor Lester Maddox; Donald Zinn, President of the National Wildlife Federation; and Robert Hanie, Executive Director of the Georgia Natural Areas Council.

Panel members included Ray Shirley, Director of the Georgia Forestry Commission; Jack Crockford, Assistant Director of Georgia Game and Fish Commission; David Almand, Wildlife Specialist, Cooperative Extension Service; Forest Durand, U. S. Bureau of Outdoor Recreation, C. Edward Carlson, U. S. Fish and Wildlife Service; H. E. Ruark, Georgia Forest Research Council; Bob Oertel, Soil Conservation Service; Dick Gray, Georgia Parks Department; and Jim Doherty, Water Quality Control Board. Pete Farrar, Southeastern Field Representative for the National Wildlife Federation was moderator of the panel.

Forestry Director Shirley of Atlanta received the Federation's top award, the Governor's Award as Conservationist of the year, for his efforts during the past year toward conservation.

Others receiving awards were: Jim Silver, Atlanta, wildlife conservationist of the year; Miller Dial, Walnut Grove, soil conservationist of the year; Harold Heffner, Commissioner of Roads and Revenues, Gilmer County, Ellijay, water conservationist of the year; Ollie Knott, Georgia Forestry Commission, Macon, forest conservationist of the year; Sam Dunaway, U.S.D.A. Soil Conservation Service, Winder, conservation communications award; Paul Nesmith, legislator of the year; and Georgia Conservancy, Inc., Norman Smith, Chairman, Decatur, conservation organization of the year.

Youth awards by congressional district were: 1st— Andy Burns, Effingham County; 5th—John Verner, Fulton County; 6th—Lynn Gable, Carroll County; 7th—Risé Spearman, Haralson County; 8th—Royce Roberts, Echols County; 9th—Jim Cline, Cherokee County; and 10th—Linda Craig, Oconee County. Cline was also the state youth conservationist.

National Federation President Zinn, in his report, told the Georgia Sportsmen that he was "pleased that conservation education programs are being pushed" in Georgia. He added that most conservation agencies are now doing an excellent job in this field. "There are no (conservation) problems that cannot be overcome if we master four obstacles," he said. He listed these as ignorance, greed, apathy and emotion.

Andy Burns, Effingham County 4-H Club member and a district Youth Conservation Award winner, demonstrates how to build a nesting box for wood ducks to members of the Georgia Sportsman's Federation.

Below: The Georgia Sportsman's Federation's highest award, the Governor's Award for Conservationist of the Year, was presented to Ray Shirley, left, Director of the Georgia Forestry Commission, by Gov. Lester Maddox.

Left: The Federation's Communications Award was presented to Bill Baab, outdoor editor of The Augusta Chronicle.

Below: "That's not an outhouse!" Jack Crockford, Assistant Director of the State Game and Fish Commission, uses the model wood duck nesting box which was part of Burn's demonstration as a podium for his address to Federation members.

By Charles M. Marshall
Game Biologist

Believe it or not, it can be done! You too can field dress a rabbit without cutting the skin if you have guts enough to try it. Fortunately, rabbits are easy to come by, and there are plenty of bushes large enough to hide behind if you want to try it without some "I told you so" rabbit hunter looking over your shoulder. I didn't have this problem years ago when I first was exposed to this method.

As a youngster, who had graduated from a single shot .410 to a corresponding 20-gauge, I frequently hunted the fields and fence rows of southwest Georgia with an old Negro man named John Henry.

John Henry was a "pea patch" farmer who kept an old plug mule to work his garden and two acres of corn planted parallel to the Cooleewahee Creek Swamp. A couple of hogs and a few yard chickens provided domestic meat for him and his wife, Mattie. Both of their families had lived in the general vicinity since their parents were freed after the War Between the States.

During fall and winter, most of the old Darkie's interest centered around rabbit hunting "while the sickness won't in 'em." He owned a small mongrel dog named Hump, the envy of all rabbit hunters in west Dougherty County. Funny thing though, very few people hunted rabbits down there. But this just suited John Henry and me. We had it all to ourselves.

Rabbits were plentiful in those days and still are in that part of the State. I shall never forget how Hump would go into a thick briar patch or fence corner and push a rabbit out into more open country where John Henry or I could get a shot.

John Henry usually got most of the shots. Although he had the best gun, I'll always believe he discussed each hunt with Hump and told him where to put the cottontail out. It sure seemed that way. Time after time the rabbit would not move into range or in the open until the old man could shoot.

He had an ancient 12-gauge Winchester lever action repeater with a 32″ full choked barrel. This gun was purchased years before, when he harvested an exceptionally good cotton crop. It had killed more than its share of rabbits, birds and squirrels for forty years running.

During the several seasons I hunted with John Henry, I accepted all of his hunting methods as standard procedure. It didn't occur to me until years later that his method of field dressing rabbits was unique.

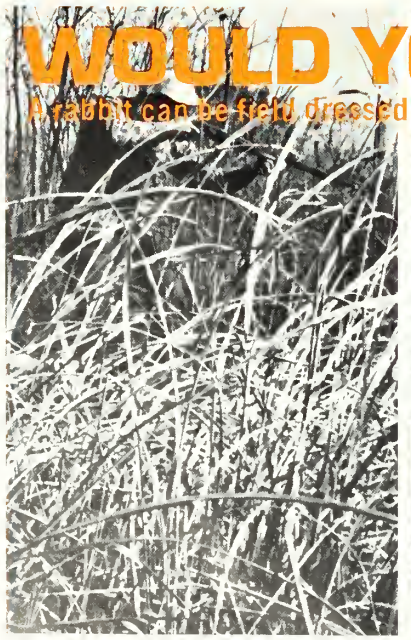
When Hump jumped a rabbit, John Henry would shout "dah he go boy" and raise his gun. That old rifle-like shotgun would bark and a rabbit would roll over, dead. John Henry would pick up the rabbit and lean his gun on a bush or tree. He would grasp the limp body behind the front legs with his right hand and squeeze hard. The left hand then was placed below the right and it too was used to compress all the insides toward the rear of the rabbit. At this point the hind part of the abdomen was twice normal size.

Now he prepared for action! John Henry spread his legs about 18″ apart and flexed his knees. The rabbit was lifted above his head while still being compressed with both hands. Then as if he were calling on magic powers, he would sling the rabbit toward the ground, stopping his forearms at his knees and holding the rabbit very tightly in his big rough hands. When he straightened up—would you believe?—there on the ground behind him lay all of the insides of the rabbit. The quick stop caused intestines, heart, liver, and lungs to be expelled through a tear near the anal opening.

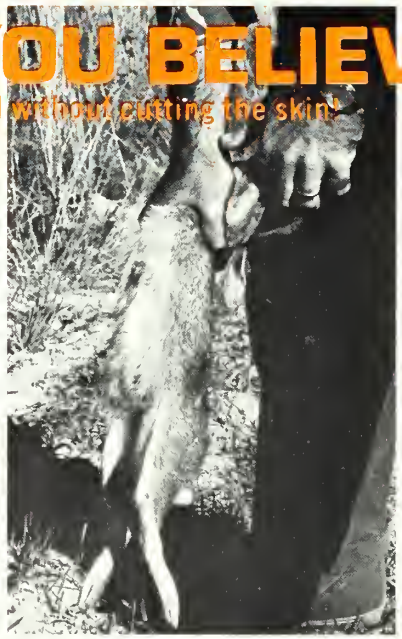
John Henry hadn't always stripped his rabbits as he killed them. In fact, he had never given it a thought until Mattie told him that the meat tasted better if the rabbits were dressed immediately after being shot. This stands to reason, because the shot cause small passageways which provide avenues for the intestinal contents to seep through and ruin the best eating part of the rabbit, the loins. Following Mattie's advice, all rabbits he killed were cleaned immediately by conventional methods, that is, opened with a knife and the intestines

WOULD YOU BELIEVE?

A rabbit can be field dressed without cutting the skin!



When you're leveling down on a rabbit, chances are you've forgotten about putting him on the dinner table. But what about afterward? Using this simple technique, you can field dress rabbits on the spot without a knife, and preserve the best eating flavor of the rabbit.



The first step is to pick the rabbit up and squeeze hard behind the front legs with your right hand.

Now slide your left hand ahead of the right and squeeze the insides toward the rear of the body.

Keep holding the ra hands after squeez to the rear and lift your head.

pulled out by hand. It was a cold messy job when the temperature hovered around freezing. But it was worth the effort, since rabbits made up a good portion of the family diet during the middle thirties.

One rainy November morning, however, he forgot his knife and had no way to open the rabbit. Being a man of few actions, and a little on the lazy side, he surely didn't want to walk all the way back to his house to get a knife.

An old reality of which he probably had never heard, came into play, *necessity is the mother of invention.* He thought "there mus be some way to gut dis here rabbit wid out a knife." Mashing the rabbit, he tried to break the lower abdominal wall but it wouldn't break or tear. So, he proceeded to sling the rabbit hoping the centrifugal force would help him. It did, but not like he expected. A rip appeared in the skin below the anus, and the contents had passed through the opening, coming to rest about 15 feet to his rear.

John Henry didn't know the proper terminology for explaining the procedure, but he could get the message across so anyone could understand what he meant. He continued to use this method of field dressing rabbits until the year he passed away.

After my rabbit hunting companion was no more, my interests soon changed to other things like cars, motorcycles, girls, etc. Therefore, I contacted very few rabbit hunters until the past several years. Recently, I have discussed John Henry's rabbit cleaning method with a large number of hunters, but very few have ever heard of it, much less used it. In fact, not many believe it when they hear about it. They usually laugh and give you that "What kind of a nut is this?" look.

Thinking that your wife might agree with Mattie that field dressed rabbits taste better, and/or that you might want to demonstrate your know-how to another hunter, we accompanied this story with step by step pictures of the procedure.

With very little practice, you can gut your rabbits with one quick motion. The cavity will remain clean because it has not been opened and exposed to hair of other rabbits or bits of trash in your game bag. Rabbits cleaned in this manner will cool much faster, and are not nearly as heavy to carry during the remainder of the hunt.

It should be pointed out that if a large rabbit is encountered, a small cut in the skin between the legs will make the job a lot easier.

John Henry is long since dead, and no doubt Hump is hunting in the land beyond, but the memory of a teenage boy walking afield with these two companions is still fresh in the mind of this pen pusher. My relationship with this old, black, toothless Saint and his cur dog has made me a more skillful woodsman and a much better man.

th
ides

Next, bring your hands down hard and fast, then stop abruptly and let the rabbit swing between your legs, compressing the insides in the rear of the rabbit.

Presto! As the continuous swing stops between the legs the rabbit's intestines fly through the air behind the hunter as field dressing is completed!

ABOUT THE AUTHOR

Charles M. Marshall, 41, game biologist for the Georgia Game and Fish Commission, has become the newest author to join the ranks of volunteer writers for Game and Fish Magazine. He finds he enjoys working with words.

For the past year, the Commission has kept Charlie busy in his office at the Walton Fish Hatchery, working with data processing, data collecting, harvest surveys and setting up various game management research projects along statistical lines.

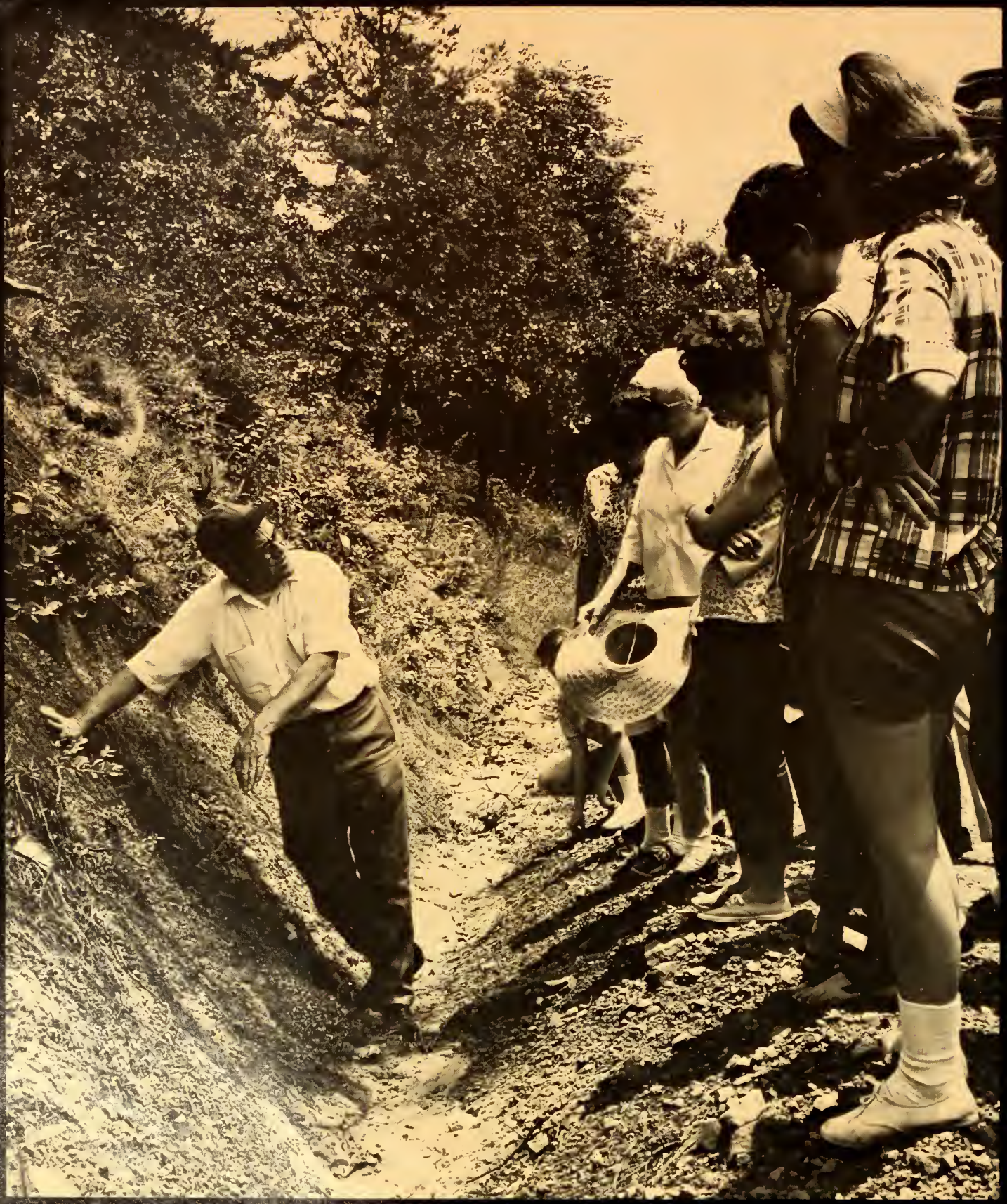
This doesn't allow him as much time as he'd like for hunting and fishing, but when he gets the opportunity he likes all types of hunting, fly rodding for bass, and sometimes bream.

Charlie's first venture was the recent account of how to skin a deer with a golf ball . . . a story that brought wide interest and comments from all around Georgia and many other states. Success was sweet enough to attract him to doing a bit more writing on the side, as much as the game management business will allow.

First joining the Commission in the mid-1950s, Charlie returned to the University of Georgia for post graduate work. He received his first Bachelor of Science degree there in 1954, and a year later had two more BS degrees, in wildlife management, agriculture and forestry. He received his MS in wildlife management from the University in 1967. While working toward his masters, he was employed by the university for seven and a half years, until returning to the Commission about a year ago.

His first four years with the Commission were spent largely in working on a squirrel research project on Goat Island in the Savannah River on upper Clark Hill Reservoir.

The native of Albany, Georgia, loves to tinker with mechanical things, such as cars, and recalls that he felt going into his line of work would be ideal because of his love for outdoor sports . . . but now he finds time for these hard to come by. Marshall says he spends more time paddling the boat for his wife Shirley to fish than he does fishing himself. They also love to camp as much as possible. Their oldest son Sam, 19, is a student at Truett-McConnell College at Cleveland, Georgia. Mitch, 15, attends Athens High School in Athens, Georgia, where the Marshalls live.



The Name of the Game

Georgia's Natural Resource Institutes

By Wilson Hall

"We're all of us put in this world together," my grandfather once told me, "all of us humans, the squirrels, the fish, the trees, and even the grasshoppers and the 'tater bugs. The Lord made us all and He put us all here to inhabit this earth and live in it together."

He was a short, square man, my grandfather was, with handle-bar mustaches and an old slouch felt hat. He could follow a pair of mules from sun-up to sun-down and then follow a pack of black and tans through the woods all night. "I don't want no pizon on my 'taters," he told me on another occasion. "I feed my 'tater bugs to the quail, and then in the fall I eat the quail." And he did, too, the hard way, with an old pointer and a single shot twelve gauge that couldn't afford to miss often or risk a second shot.

In his own way, and he never darkened a school house except to drop off or pick up a child, he understood what the teacher-students at Shorter and Valdosta Colleges were taught in intricate detail during a three weeks course held there during June; that we all, "humans, squirrels and 'tater bugs," depend upon each other for existence. In the very acts of living and dying, we propagate and deter each other; we help and we hinder each other. And it behooves all of us to look after each other and the natural resources we share in common. For to destroy one section of the relationship is to destroy the whole thing. The name of the game is ecology in conservation, and we all play it, either by positive or negative efforts.

Since we all play the game, it would benefit all of us, sportsmen and nonsportsmen alike, if we could attend this Institute. But this, of course, is impossible, and so we do the next best thing. We send our teachers who will teach our young, and hope that some day the word will get around, that Nature is in balance, and that nothing, not even man, is immune to destruction if he upsets that balance.

Students of the Natural Resources Institute discover rather quickly that by polluting our streams and air, by allowing our lands to erode away, we are allowing the ecological relationship that holds the living world together to deteriorate and thereby threaten our very existence. Controlled forestry has its effects on wildlife, as do impoundments of water, and how these are controlled makes a difference as to whether the effects will be beneficial or detrimental.

Actually, the Institute is unique when it is compared with the conventional school. It is unique, first of all, in the attitudes of the students. Those of you who have been confronted with the next higher grade when September ends summer, know the conventional attitude of the student to school, but to students who love the out of doors, and to whom learning is pleasure, not work, the Institute is a vigorous and rewarding experience.

The Institute differs, also, in that it is not a classroom course. Many sessions are held in classrooms in order to take advantage of slide projectors, maps, movies and laboratory facilities, but many classes on geology, geography, soils, and minerals are taught from the ditch banks and road cuts, where instructors point out strata, telling what it represents both historically and in terms of modern man and his present day actions. Here, they learn that there is life in the soil, needed by man, animals, and plants.

They learn that living is done according to rules imposed by Nature, and that the quicker we learn the rules and play by them, the sooner everybody, including the birds and bees, comes up a winner. They learn that the man who derives his income from pine trees, for example, and who plants all of his land in pines, cannot expect to hunt squirrels, deer, or other animals which depend upon hardwoods for a

Above: One of Georgia's two summer courses in natural resources for teachers is held annually at Rome's Shorter College, directed by Dr. Phillip F-C. Greear, chairman of the school's biology department. Studying a topographical map helps to explain how watersheds and airsheds work.

Far left: To learn about the value of Georgia's natural resources, there's no better place to start than from the ground up. Starting Georgia's youngsters off early with teachers who appreciate the need for conservation is the purpose of Georgia's Natural Resource Institutes.

part of their sustenance. He can have both, however, by balancing his needs against theirs.

Other times, the classroom was a moving bus from which the instructor pointed out the strata in the road cuts, or pointed out the contaminated air in the valleys below. One day, when the air was sultry and not moving, indeed, had not moved for several days, the class followed the cloud of polluted air from the industrial site up one valley, crossed a mountain some twenty-five miles away, and saw the sulfurous cloud sitting heavy and thick in the other valley. A dialogue at this point pointed out the real problem that exists between man's needs to fulfill his own requirements and at the same time satisfy Nature's.

"Dr. Greear," one student asked of the Institute Director and Head of the Biology Department at Shorter, Philip F-C. Greear, "Why don't they filter it?"

"It costs thousands of dollars, and takes several years to get the equipment built, installed, and into operation," Dr. Greear said. "If they were given the order to clean up or close up tomorrow, many of the big plants would have to close shop."

"Wouldn't we be better off without them, then?" another student asked. It was a sultry day, with the air not moving, and heavy enough to breathe, even without the sulfides in it.

"No," Dr. Greear answered. "We must have their product in order to maintain our society and culture. The answer is not to destroy, but to find a harmonious way for us to live together." And so went the theme of the Institute. The hunter who loves his gun does not want to see the steel mills closed so that the air and streams are cleaner. He wants to find a way for himself and his gunmaker to live in harmony with the game which he is going to hunt. But the answer to this problem is intricate and tangled. It may be left to our children, the students of the Institute teachers, to solve.

One day the classroom consisted of seven boats lashed together in the center of Lake Marvin in Floyd County, while the sun beat down unmercifully and the sun tans got darker and darker while no tans got redder and redder and everybody sweated. C. B. O'Neal, a biologist for the Georgia Game and Fish Commission, taught methods of studying a lake's biological life and oxygen content, which is so essential to a lake's life. The classrooms of boats were operated by wildlife rangers and other employees of the Game and Fish Commission, and they moved the boats about the lake while they collected fish specimens by "telephoning." Actually, the device used was much more elaborate than the old and illegal telephone. It was a sweep of several electrodes connected to a generator which furnished enough power to knock out a fish and send it floating to the top of the water where it was collected, identified and accounted for in the lake's fish population. Such a device allows for a rapid and exacting accounting.

Later, the boats anchored around a central boat where C. B. explained the need for oxygen in water, how it gets there, where it is most abundant, and where it is most scarce. He established the hypolimnion (that level of a lake where the water stratifies and does not circulate, growing too cold for a fish's comfort and too short on oxygen to sustain his life). Here he discussed problems associated with the hypolimnion and how they are corrected. "There's food in the hypolimnion," C. B. said, "if only the fish could get to it."

C. B. pointed out that hypolimnions are problems made mostly by man's impounding the water. In Nature, water usually keeps itself moving, aerating itself by water falls, shallow rapids and thermal circulation in ponds. Experimental work is being done at Lake Allatoona, he pointed out, with a bubble machine to eliminate the hypolimnion problem, and thereby furnish more living space for the fish, which will in turn furnish more sport for us.

That same day, the Institute stopped by the Arrowhead Fish Hatchery, newly acquired by the Georgia State Game and Fish Commission as part of their continuing effort to help maintain the ecological balance between Man and wildlife. Here the hatchery tanks became a classroom while C. B. explained how hatchery fish are bred, raised, and released.

On one occasion, when the classroom was a real, honest-to-goodness college classroom, the State Water Quality Control Board representatives explained the need for Man to maintain the cleanness of his waters. Films and talks by J. C. Meredith and Ed Hall revealed that there are in this world (not, thank goodness, in Georgia) rivers that are dead. Hall showed movies of rivers that had raw sewerage, detergent, slaughter house slops, and other assorted pollutants added to them at such close intervals that they could not recover and cleanse themselves. The fish in them died and they had a froth on top that almost hid power boats moving across their surfaces. Tap water foamed in the glass. Blood worms, river slugs, and rat-tail maggots were the only inhabitants of these waters.

"Thank goodness that's not in this country," someone said.

But it could easily be here, Hall pointed out. The Etowah River is only now beginning to recover from the millions of tons of mining silt that were poured into it, and even now, within only ten miles of where it joins the Oostanaula River to form the Coosa it receives part of the raw sewerage from Rome and is contaminated by both chemical and heat pollution from industries along the shores. Rome has built a sewerage disposal system, part of which is now in operation, and the industries have begun to clean up their contamination, but the process is slow. The situation at Rome is indicative of many other situations over the state, many of which are worse than at Rome.

Hall pointed out another area of pollution in the state, the Savannah River. "It is too polluted to allow oysters to be harvested," he said. "And it has the compounded problem of having its sewerage wash back up river as the tide comes to the full."

"In the future," Hall warned, "we'll have to begin to worry about a third and more dangerous kind of contamination, that of radio-active waste as power plants switch from coal to nuclear power."

If fish can't live in it, if we can't drink it, and if the wildlife along its shores can't depend upon it for food and water, the river becomes merely a running sewer, the Institute was told. A source of life and food can become a mere conveyance to carry away waste matter. It will be like having all the ways to spend money with no source of income. In a situation like this, man is not doing his part in maintaining the balance between himself and Nature. He is destroying one of the three basic elements necessary for him to maintain existence. He may not recognize it until his drinking water foams at the tap, or he cannot eat his fish and oysters, or his rivers smell too foul to fish in. But for his own existence, he cannot wait until it is too late to learn it.

The importance of man's relationship to Nature was the theme also when the lumber yard of a saw mill became the classroom. Here the Institute learned that plants play a gigantic part in the cycle of life that includes us all. They learned that plants hold the soil, keeping it from washing away into the rivers and seas. They learned that plants make soil by converting the sun's energy into hydrocarbon compounds with the minerals which they draw up from the earth. As the trees drop leaves, as they die and decay, they produce that top soil which we cannot get along without. They give us our oxygen back after we breathe it out as carbon dioxide. And they learned to beware those oxydized compounds from which Nature cannot free the oxygen. These are man-made, and they are thieves to Man, animals, and plants.

"It's a delicate balance," Dr. Greear says. "We exchange respiration with the plant world. We breathe out carbon

dioxide, and the plants breathe it in. They breathe out oxygen which we breathe in and exhale as carbon dioxide, which the plant world breathes in . . . and on and on forever. If we die off, so will the plants. If we kill off the plant world, we too will die off. If we destroy the oxygen, we will both die."

Man would not destroy himself this way, one may argue. But even now the Wilderness Society is having to fight, day by day, to maintain what wilderness there is left in this country, to keep it from being cut over and developed. Our state and federal governments have seen the need to establish water quality control boards to help clean up and maintain our streams and rivers. In the Cohutta Mountains of this state, hunters destroyed the whole deer and turkey population without worrying about the consequences. Only a small remainder of this country's buffalo herd remains, and this may be just as well, since man created the dust bowl from the range on which they grazed. The carrier pigeons are gone. The last auk was killed in early June of 1844, and the eggs in the nest were destroyed. The bounty still exists on some animals in this country, indicating that there are specific attempts to break the ecological cycle. Man's handling his game and wildlife in the past was an eye opening experience for the Institute students, but the work being done by the state of Georgia to remedy these past crimes gives them hope that one day many of our other ecological imbalances will be solved.

"Education is the answer," Dr. Greear says. "Men do not, for the most part, knowingly destroy what they want to preserve, and they will not destroy themselves if they know what they are doing. But too many times, people do not know the ramifications of their actions."

Dr. Greear believes that an ecological approach to conservation is the only sensible approach. "It is not the purpose of science to conquer Nature, as has been the historical interpretation of it," he says. "But rather it is our purpose to understand Nature, and guide ourselves according to its rules. The universe is one interrelated community, which is mutually interdependent, and for us to annihilate one part for the comfort or greed of ourselves is to eventually alter or annihilate ourselves."

Responsible and knowledgeable people agree with the idea of the National Resources Institute and support it. The Georgia Game and Fish Commission furnishes speakers and personnel to help conduct the classes. The Floyd County Wildlife Association hosted a fish fry to entertain and commend the Shorter Institute. The Water Quality Control Board of Georgia furnished speakers, movies, and slides for classes. And several private industries gave their support either in the form of speakers and materials or in the form of scholarships for students to attend. The Floyd County Wildlife Association furnished one of the $150 scholarships for this year, and one was furnished by Local 3219 of the Communications Workers of America. Bud Higgins, president of the Floyd County Wildlife Association, announced that he is determined that union locals from over the state will furnish at least fifteen scholarships for next year.

"We are all in this world together," as my grandfather said, and science has added that right now, it is Man who has the capability to destroy us all. And so it is Man who has got to learn how not to destroy us; it is Man who has got to learn how to get along with the rest of the ecological world—"with the squirrels, and fish, and 'tater bugs."

(Groups who wish to contribute financially to the scholarship fund of the Institutes or teachers who would like to apply for a scholarship for this summer's course may do so by writing Jim Morrison, Chairman, Georgia Natural Resource Education Council, c/o State Game and Fish Commission, 401 State Capitol, Atlanta, Ga. 30334.)

Top: Fish biologist C. B. O'Neal shows students how walleye are raised at the Commission's Arrowhead Hatchery, near Rome. O'Neal is holding a tiny fingerling in his hand. This summer's institutes will be held June 16-July 3 at Rome and June 23-July 11 at Valdosta.

Above: On one field trip, teachers learn how Game and Fish Commission biologists and wildlife rangers use an electric shocking machine to capture fish for stocking and for biological surveys. Other state and federal conservation agencies help instruct during the Institutes.

the outdoor world

Darby Is New Game and Fish Chairman

James F. Darby Jr., Vidalia, has been elected chairman of the Game and Fish Commission. He previously served in this post in 1965.

Darby succeeds Rankin Smith of Atlanta, owner of the Atlanta Falcons, professional football team.

Clyde Dixon of Cleveland was named Vice Chairman, and William Z. Camp of Newnan was re-elected Secretary.

The 11-man governing body elects officers each year. One commissioner is appointed from each congressional district, for a term of seven years.

During Darby's last term as Commission Chairman, the General Assembly passed a bill increasing hunting and fishing license fees by $1.00 each, relieving a serious financial strain for the State Game and Fish Commission.

Darby, a businessman with interests in building supplies, banking, construction, farming and tobacco, was first moved to the Commission in 1949, representing the First Congressional District.

New Officers

New officers of the State Game and Fish Commission for 1969 from left to right are Clyde Dixon, vice-chairman, James Darby, chairman, and Bill Camp, secretary. George T. Bagby, right, is the Commission's Director.

Dixon is Executive Vice President of the People's Bank in Cleveland. The native of Clarkesville is the Commission's newest member, joining the board about two years ago. His business interests include an insurance agency and an automobile agency. He represents the ninth Congressional District.

Camp, from the Sixth District, is Tax Commissioner for Coweta County. He has been on the Commission since 1961.

—Dean Wohlgemuth

"Thanks, Fellows!"

Outgoing Game and Fish Commission Chairman Rankin Smith received a "token of appreciation" from his fellow board members, presented by Commissioner Charles Davidson (l), and Governor Maddox. Said Smith, with a wide grin, "This symbolizes my efforts for the past year with the Falcons, the Game and Fish Commission, and the insurance business!" He will continue to represent the 5th District on the Commission.

WILD DOGS *Continued from IFC*

ments possibly exceeds that of raising income to pay for dog control efforts.

Secondly, it should be pointed out that any dog, regardless of his breed or ownership, is a potential killer of wildlife and livestock, if allowed to roam freely, especially at night. Many dogs have a "Jekyll and Hyde" personality, unknown to their owners. For this reason, the State Game and Fish Commission feels strongly that Georgia needs a law that specifically prohibits dogs from running loose, except when they are under the direct control of the owner while hunting, etc. or when they are on the property of the owner or a consenting landowner. This provision and other sections of the law will not be enforceable without requirements of licenses, tags, collars, pounds, dog control officers with clearly defined authority, and misdemeanor penalties for violators. If undesirable dogs aren't taken out of the woods, new laws will fail.

Such provisions won't affect most legitimate dog owning sportsmen, who already are accustomed to penning or leashing their dogs when they are not used for hunting, inoculating them for rabies and providing identification collars. The modest fees being proposed are not high enough to bother serious sportsmen, who would spend much more on a box of shotgun shells without blinking an eye. In the case of hunters who use packs of dogs, hunters in the group who don't own dogs should be happy to share in the cost of their upkeep, just as they now buy dog food, etc. for the dog owner. To do otherwise would be to be identified as a miserable freeloader, which the majority of such hunters certainly aren't.

Now is the time for responsible dog owning sportsmen to take the leadership in calling for enforceable legislation that will solve the problem.—J.M.

Sportsmen Speak...

GUNS

Thank you for your opposition to the deluge of anti-firearms laws. We have been and still are, being bombarded in the press and over the air with twisted propaganda. The aim is to ultimately forbid possession of all guns.

Law respecting persons could not own weapons, but the criminals would not be stopped.

Most people think enforcement of present laws would cut down on the crime rate.

Jesse H. Wootton
Atlanta, Georgia

BACK TALK

I have been reading your magazine since it was started.

Being a sportsman, I am very glad to see you editors kid back at such people as J. M. Maloney (No address given) in the Sportsmen Speak section of the October issue. Also, I am delighted in seeing Mr. Bagby taking a stand for the great sportsmen of our state.

Keep up the great work.

Thomas W. Schunhoff
Valdosta, Georgia

DOGS

I just finished reading the story, **"Hounds of Hell"**, published in Volume No. 3, No. 12, December 1968. It was a very interesting article. However, when I reached the proposals as recommended by the Georgia Animal Damage advisory committee, that blew it. It really took a lot of study for any committee to make a hair brained recommendation as set forth therein.

It appears to be the word of the day. Tax anything or anybody just to raise revenue regardless of who or what it affects. It's now killer dogs so tax everybody that owns a dog. Why didn't the committee place the blame where it belongs? On uncontrolled breeding and irresponsible individuals instead of making a fuzzy headed recommendation as set forth in the article.

Place the cost of the killer dog control on the people that benefit by it most. Namely deer hunters, stockmen, farmers, land owners, and hunt clubs, and not just on the dog owners.

Here are some questions I believe must be considered when suggesting a dog tax for this purpose. Has anybody ever seen a trained bird dog attacking or chasing deer or cattle? Can anybody imagine a deer being attacked by a pack of Chihuahua or miniature Poodles?

This is what makes the recommendation of the committee so asinine as the proposal would tax the honest citizen that owns any dog. I suggest the committee reconsider their proposals.

I firmly believe it is not the registered or pure breed dogs that kill but are the ones caused by uncontrolled breeding and those dogs in the hands of irresponsible people. Those are the ones that should bear the cost for a dog control unit.

Edward C. Bond
Columbus, Georgia

See the editorial on the inside front cover, "Are 'Wild' Dogs The Problem?"

I have just finished reading "Hounds of Hell" in the December **Game & Fish.** I am in sympathy with the Game and Fish Commission and the livestock owners of Georgia. Several times while hunting I have witnessed stray dogs chasing deer. The most recent chase occurred in Putnam County during the past season. Four unkept, uncollared and ultra-mixed-breed dogs emerged from the woods across the gravel road from where I was sitting. All halted in front of me in the road with tongues dangling and noses sniffing—obviously trying to find a scent they had lost. I could have shot all four easily, and I wanted to. However, the disposal problem prevented me. You are right when you say that something must be done. Nevertheless, the proposals offered by the Georgia Animal Damage Advisory Committee are unacceptable to me.

I would like to discuss my objections to each item of their proposal and offer a simple solution to the whole problem.

The first item of the committee's proposal would require that all dogs over three months old be vaccinated by a registered veterinarian and that the owner receive an annual tag for his dog's collar after the payment of a $2 fee in addition to the veterinarian's fee. I must admit that it would be desirable to have all dogs vaccinated. But just for the sake of clarity and not for the argument, this situation is analogous to the gun control controversy. If every single gun (dog) were registered (vaccinated) a few criminals (wild dogs) might be captured **after** committing a crime (killing a calf). But you stated that your objective was prevention. Do dogs instinctively, somehow mysteriously know that the bothersome little tags around their necks will get them into trouble and so cause them to resist the temptation? I doubt it. Oh! You say that the owners will take extra precautions to see that their dogs are behaved since they are wearing their shiny $2 tags. But that speculation is not realistic since those owners that would go to the trouble and expense of registering their dogs in compliance with the proposed law are the most conscientious dog owners to begin with, and would control their dogs under any circumstances. Thus, the law would result in mere harrassment of reputable dog owners, just as would gun registration harrass honest gun owners, and would not in the least affect those guilty of committing the crimes you seek to prevent. The dogs that are causing the trouble are not the dainty French Poodles lying in the laps of housewives or the valuable hunting dogs belonging to sportsmen; they are the castaways of heartless people who think that it would be cruel to dispose of an animal rather than giving it a "fair" chance in the wild. Another source of wildlife damage is more malicious yet. It is caused by unsportsmanlike hunters who deliberately turn loose unidentifiable dogs of all description for the sole purpose of running a deer past their stands. These dogs are old hunting dog relics and strays rounded up prior to the hunt—all of no value, and never is an attempt made to recapture them. They are put back into circulation once more.

Besides being a nuisance to lap dog owners, this vaccination provision would cost considerably and severely inconvenience owners of hunting and working dogs. First of all, the members of these groups of dog owners own many dogs each; some fox or coonhunters might keep twenty or more dogs, and usually handle the vaccination tasks themselves, to abate costs. If you add the $2 tag fee to the usual $5 fee a vet charges to stick a dog, you find that the bill can add up quickly. And again it must be pointed out that these dogs would be vaccinated anyway and the mongrels still left untouched.

Next, the committee would require that all dogs be made identifiable by a collar and nameplate or by a tatoo. Well, once again the cared-for dogs are a step ahead of the law, and the mutts escape.

The committee points out that only duly authorized officials would be permitted to dispose of a dog; a landowner only being permitted to do so when his stock is being attacked. Here lies their greatest error and the solution to the problem. How many wild dogs could fifty dog wardens dispose of, considering all the legal hassling necessary? Not enough to make up for their checks! This might be a good project for HEW to look into, but for ridding Georgia of wild dogs it's ridiculous. The only way to control these dogs is to give landowners the authority to deal with them firsthand. Only the landowner knows the extent of the dog problem and has the opportunity to effectively cope with it. And just think, no fees, pounds, wardens, departments, paperwork or confusion. Oh! Off blows your hat and you exclaim, "It's wholesale murder of man's best friend!" The commission stated that no bounties would be paid in order to avoid "...massacres of innocent pet dogs." I am not in favor of bounties either, but not because I fear a massacre. With cats it might be different, but most men would rather shoot their mother-in-law than shoot a pet dog. I can see it now; alcoholics and addicts hauling in Poodles and Pekingese alike in desperate efforts to buy a fix! Just think what the effect would be on the blood banks!

That committee must have gone to Washington and taken a course in political bungling to dream up such a complicated scheme of fees, tags, wardens, pens, and fines as they did. Why not set a precedent in lawmaking? You may not replace the common law, but by simply giving landowners a measure of discretion in controlling wild dogs you will have a simple, inexpensive, and workable plan.

Wallace J. Majure II
Doraville, Ga.

P.S.: I would like to see this letter printed in the Sportsmen Speak section of the **Game & Fish**. However, you may use it in any way you wish, but if you do decide to print it, I would like a personal reply with your comments.

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March 1969 Volume IV Number 3

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AMMUNITION REGISTRATION STUPID

Georgians have a right to be outraged by the senseless federal requirement of registration of all ammunition purchases which went into effect on December 16.

As of that date, sportsmen all over the United States have had to endure the needless aggravation of waiting in line to buy ammunition while a luckless clerk is forced to record their name, address, *date of birth*, type of identification, type of ammunition they are buying, number of rounds, and the caliber.

Since this information must be kept in a bound, permanent record, if two or more clerks are selling ammunition at the same time, they must wait in line to record their sales, causing further needless delays.

Hunters and law-abiding target-shooters are justifiably disgusted by this pointless red tape. Registration of ammunition purchases serves no significant law enforcement purpose. After all, how many times does a criminal shoot? One bullet could easily carry him through his entire criminal career. Does the registration requirement on ammunition components for reloading take this in to account?

Unlike a gun found on the scene of a crime, a bullet can't be traced to its purchaser through registration records. The ballistic marks on a bullet are useless without the weapon from which it was fired. Shotgun pellets don't have that small advantage.

Until now, small country grocery stores and other small businesses who sold ammunition weren't required to buy the $1.00 federal license required to sell guns. Now, both ammunition and gun sellers are required to have a $10.00 federal license. Combined with the added bookeeping load, the new law has already forced many small dealers to stop handling ammunition, making it more difficult for sportsmen to obtain shells in remote hunting locations, while the criminal is completely unhampered.

When a dealer sells a box of .22 hollow point shells to a customer for $1.00, his profit is only about 25 cents. Is it worth it, when the time and frustration of recording so insignificant a sale are considered? In the past, it has been common for a deer hunter to buy half a dozen rounds of .30/06 ammunition, or four or five slugs or buckshot shells. Can the dealer afford to continue this service?

If the dealer doesn't adhere closely to the regulations, he is liable for a $5,000 fine or a five year sentence in the penitentiary. Plainclothes agents of the federal Alcohol and Tobacco Tax Unit of the Treasury Department are already attempting to make purchases from careless or unwary dealers. Is this fair?

At its winter board of directors meeting, the Georgia Sportsmen's Federation went on record as opposing the

Continued on page 17

ON THE COVER: A dip net full of young striped bass spread out into the green waters of their new home, Lake Blackshear, between Americus and Cordele. 11,500 of the sub-adult stripers have been stocked in the lake this spring. Next year, they'll weigh two pounds! Color photo by Ted Borg.

ON THE BACK COVER: A black bear cub, a rarely seen sign of spring and new life in the North Georgia mountains. Black bears are found in all of the four major sections of Georgia, but in sparse numbers. Instead of leaving the unoffensive bruins alone, some "great white hunter" seems to feel that it's his patriotic duty to ignore the law and slay any bear on sight. Color photo by Lee Leonard Rue, III.

PHOTO CREDITS: Carl O. Bolton 11, 12; Ted Borg 4, 5, 8, 9, 10, 14, 15; Dan Keever 13; Dean Wohlgemuth 1, 2, 3, 6.

A Strike for Stripers

'Tomorrow' Is Getting Closer For Georgia Striped Bass Fishing

By Dean Wohlgemuth

■ The "future" is beginning to look brighter and considerably nearer for Georgia fishermen who are anxious to tangle with a Georgia fresh water-caught striped bass.

Efforts over the past few years to bring stripers into the state's waters are gradually beginning to reach the payoff point. This winter, for example, a reasonably heavy concentration of "rockfish" (common nickname for striped bass) was achieved in Lake Blackshear.

Three stripers and you're in! A new fishing thrill for Georgians on the way.

Game and Fish Commission Director George T. Bagby says that the stocking of young fish in Blackshear has reached the point of one and a half fish per acre . . . in other words, there are three fish per two acres of water in the lake. About 11,500 young stripers have been stocked this spring into the 8,500-acre reservoir between Cordele and Americus.

Not only is this the heaviest stocking per acre of stripers in Georgia waters, the fish put in were the largest to be reared from eggs. The fish ran up to about a pound, averaging about 10 inches in length.

By next fall, these fish could double in size, thus producing fishing sport in Blackshear for stripers of up to two pounds, according to Leon Kirkland, Commission Fisheries Chief.

Anglers who get a taste of matching wit and muscle against these fish will find a new realm of sport open to them. Gradually, as time passes, the stripers will become considerably larger than any freshwater species known to Georgia. The world record landlocked striper weighed 55 pounds. It is not known how large the striped bass will become in Georgia, but hopes of eventual catches of 20 or 30 pounds are not at all far-fetched.

A large percentage of those now in Blackshear sport a Georgia drawl, too, though others may have more of Charleston, S. C., "Geechee" accent. Some of the fish just put in were those history-making fish that were hatched in the Georgia Game and Fish Commission hatchery at Richmond Hill, this past spring. Others came from the South Carolina hatchery near Moncks Corner.

When those first eggs to be hatched off in Georgia were produced, Georgia became the fourth state ever to produce its own striped bass fry. South Carolina has long been a leader in this field, when that state discovered that this saltwater fish could live and thrive when landlocked in freshwater impoundments.

Once successfully hatched, the tiny pin-head-sized fry were nurtured in hatchery ponds to a good size before stocking, in order that a higher rate of survival could be obtained, thus producing sport fishing sooner.

Some of the fry hatched in Georgia were kept at Richmond Hill. Others, along with those obtained from South Carolina's hatchery, were reared at the Commission's Dawson Hatchery and at the Commission's new hatchery near Rome, Arrowhead Hatchery.

Arrowhead is the primary rearing site at the moment. The stripers were put in many locations while rearing facilities were prepared so that the Commission will be ready to raise stripers on a much larger scale when the Commission's hatching output can be increased.

Since hatching efforts were successful last year, the Commission has succeeded in obtaining funds for better hatchery facilities at Richmond Hill, now under construction. When these are complete, Georgia should be able to produce all or most of the striped bass necessary for stocking in several lakes around the state, Director Bagby says.

Until a system is perfected, it may still be necessary to obtain some fry from South Carolina, for a few years. But eventually Georgia's striper hatchery should take care of all the state's needs. Present plans are to stock lakes which would benefit most from this new fish.

In addition to Blackshear, some stocking has taken place at Lake Seminole. Commission biologists hope that reproduction will occur in both of these lakes, thus making the populations here self-sustaining.

However, there are other lakes in the state that could benefit from the stripers and could provide ample food for them. Yet, it is highly doubtful, and in most cases impossible, for the stripers to spawn in these other lakes. The only way a good population of stripers can be achieved and maintained, is through regular stocking of young fingerling stripers. And the only way Georgia will ever be able to do this is by operating its own striped bass hatchery.

Striped bass from other sources are quite limited. Heavy demands have been made on South Carolina's top producing hatchery. Not all the demands can be met. South Carolina uses a top priority system in distributing striper fry to other states . . . those who can best help South Carolina the most in trading of fish or game species, or in similar ways, get top priority in receiving stripers.

It's not at all surprising that the striped bass is in such heavy demand around the United States, and even in foreign countries. Not only does he provide a new and exciting sport species, larger than those in existence, but also he actually improves fishing for existing species.

In adding a new species to any waters, biologists must be certain that the new fish won't take food and habitat required for the current residents of that water. It wouldn't help Georgians much if the addition of stripers would result in a depletion of food for largemouth bass, crappie, bream or other current species. That would mean less fishing instead of more.

The biggest benefit, and biggest reason for wanting to bring stripers into Georgia's lakes, is because their presence is highly beneficial to largemouths, crappie and other game fish, because the striped bass lives on gizzard shad and other large rough fish . . . rough fish that are too large for bigmouth bass to eat. These shad and other rough species eat food that could be left for game fish, so their removal helps to provide more sporting fish.

So as the striper eats, he provides more food for his new neighbors.

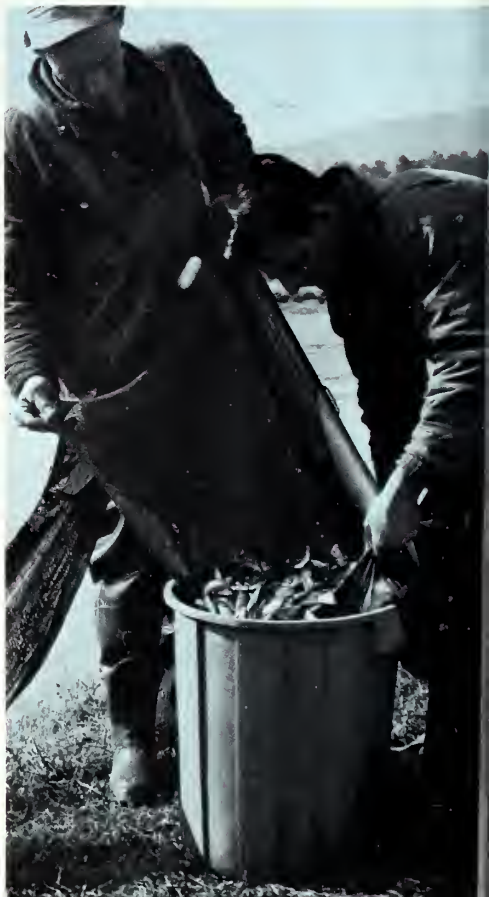
While fishing for many species of freshwater fish can be somewhat seasonal, the striper is a voracious feeder, and his appetite is good year-round. He isn't at all finicky, and can be caught in a variety of ways.

One of the more popular year-round methods of catching stripers is by using cut bait, preferably mullet, fished on the bottom.

The most exciting way and perhaps the most sporting is the method used during the hot late-summer days, when it's just about impossible to catch freshwater fish. This is the school-fishing method. Anglers wait in their boat in the middle of the lake until they hear a school on top of the water. The stripers chase schools of shad to the surface, then as the school of stripers breaks the surface, they cause a real ruckus. Anglers race their boats to the scene and cast white topwater plugs into the school. Stripers also school in the winter, when they are caught just below the surface on white bucktail jigs.

Probably more stripers are caught, and most easily, during the spring spawning runs. The fish go upstream in an effort to spawn, and strike jigs with vigor as they work upstream.

Of course, this method is good only where there are suitable spawning



streams running into the waters inhabited by stripers. In order to spawn, the striper must have clean running water, for a long enough distance upstream from a lake (or the ocean) so that the newly laid eggs will remain afloat for up to 72 hours. One of the greatest threats to striped bass, as well as other anadromous species, is the building of many dams in various coastal rivers.

At this writing, for example, South Carolina's world's biggest and best striped bass fishery is threatened by proposed dams which would provide a shipping channel in the Broad River from Columbia, the state Capitol, downstream to the Santee-Cooper reservoirs, and of course, on down to the Charleston harbor. The building of dams in this river would completely halt striped bass spawning in Santee-Cooper, and ruin the great fishing there.

The striped bass can open a whole new realm of fishing for Georgia fishermen. But as with all improvements in hunting and fishing, success depends heavily upon the citizens of the state. Cooperation in the Game and Fish Commission's program is vitally necessary, not only in adhering to regulations regarding striped bass fishing, but in supporting the Commission's work and in making finances available for research and for carrying out work in producing more fish.

Not only can the citizen help provide himself with an exciting new game fish species, he can improve the fishing for the species he already knows, and loves to seek.

Above: Fish biologist Don Johnson examines a fine specimen of striped bass that came from one of the State Game and Fish Commission's Arrowhead Hatchery ponds at Rome.

Far Left: Arrowhead Superintendent Jess Kinsey helps hold the net as Johnson carefully pours the young stripers into a can filled with water. Then the fish are ready to leave for their new home in Lake Blackshear, between Cordele and Americus.

Left: Johnson and Kinsey use dip nets to take young striped bass from a catch box at the hatchery. As water pours out of the hatchery pond drain, the fish wash out the drain and are caught in the screened box.

LUNKER COUNTRY

More Marks Set in Big Fish Contest

By Dean Wohlgemuth

Having won the annual Big Fish Contest sponsored by Georgia Game and Fish Magazine and the Georgia Sportsmen's Federation in the bass division, Emory Josey of Macon displays his fine 14 pound, 14 ounce bass that was the biggest produced during 1968. In addition to winning the Garcia rod and reel given all winners, Josey will have his name inscribed on the new Garcia Black Bass Trophy for Georgia.

Four state records were set and another was matched during the 1968 Big Fish Contest, sponsored by the Georgia Sportsmen's Federation and Georgia Game and Fish Magazine.

Charles C. McCullough of Decatur, was the first to put a white crappie on record for the state, and when he did it he went about the task in a big way . . . with a huge 4 pound, 4 ounce fish. He, along with winners in five other categories, will receive a Garcia Ambassador 5000 reel and matching Garcia Conolon 2521C rod, plus a fisherman pack of Fliptail Lures.

Clyde Vaughan of Canton caught a white bass that was only six ounces less than the world record, but it was a tie for the Georgia state record. This fish weighed 4 lbs. 14 oz.

In the Black Bass category, Emory R. Josey of Macon waited until just about the end of the year before pulling out 1968's biggest bigmouth. He caught his 14 pound, 14 ounce lunker December 22 in Bear Camp Lake near Irwinton. In addition to the rod and reel, Josey will have his name placed on the new Garcia Black Bass Trophy for the largest bass caught each year in Georgia.

The biggest of all the prize winning fish, not too surprisingly, was a catfish. A big 29 pound flathead cat was taken from Lake Blue Ridge by James Chastain of Marietta. Oddly enough, it was the only catfish entry, and was a new state record.

At the other end of the scale, in the bream category, Bill Crabb, Marietta, caught a 2 pound, 12½ ounce shellcracker to eke out the honors here. His 'cracker, which came from a private lake in Cobb County, was a scant half

Left: Rev. Clyde Vaughan's big white bass caught out of Lake Lanier on a deep-diving Rebel, tied the year-old mark for white bass, at four pounds, 14 ounces. The pastor of Oakdale Baptist Church, Canton, loves to fish for fish as well as men.

Right: Galen Harrison, Gainesville, spent little time hooking this 11½ pound rainbow in the Chattahoochee, but it took him nearly two hours to finish the job of landing him.

ounce ahead of its nearest competitor for the bream prize.

Gainesville's Galen Harrison, an 18-year-old student, needed only three casts to hook a rainbow trout that tied him for top honors in the trout category, with an 11 pound, 8 ounce monster which came from just below Buford Dam on the Chattahoochee River. But he had to share this distinction with Elbert Gilliam, Ware Shoals, South Carolina, who caught a brownie of the same weight, from the Savannah River below Hartwell Reservoir.

New state records set during the year included:

Smallmouth Bass, 6 pounds, 2 ounces, caught by Robert Parson on Lake Chatuge.

Bowfin, 14 pounds even, caught by Randall Lee in Okefenokee Swamp.

A good number of entries came in during the year, and those meeting minimum requirements were awarded Master Anglers Awards.

A few entries could not be verified, however, because the entrants either did not send a picture, or the picture sent was of such poor quality that definite verification of species was not possible.

For example, a very clear picture is needed to clearly establish a fish is a smallmouth bass, rather than a Coosa bass or a largemouth bass. One fish, entered as a smallmouth was distinguishable in the picture to very definitely be a largemouth. And the fish was caught far from the cold waters that hold true smallmouths.

A great deal of confusion can occur in distinguishing Flint River bass from Coosa bass, and Coosa bass from smallmouth bass. One fish entered as a Coosa bass, was caught in the Flint River; thus it actually was a Flint River bass. Its weight exceeded the record for a Coosa . . . but it was under the Flint River record.

Both of these subspecies are very similar to both largemouth bass and the true northern smallmouth, but are separate species.

Another fish, entered as a shellcracker, had been mounted before being photographed. In mounting, the fish had been painted as a bluegill. From the photograph, it was impossible to distinguish its species.

There wasn't a white crappie on the Georgia record book until McCullough submitted his big one. It measured 18 inches long, and 14¾ inches around the girth. He caught the fish on a minnow, using spinning tackle, and 10 lb. test line. The catch was made April 27, in the Hart County end of Hartwell.

"I'd been fishing shallow water in the coves," relates McCullough, "and wasn't finding anything. So I got out into deeper water to try to locate some fish. I saw someone trolling in deep water and catching a few. So I anchored in various spots until I began catching a few nice ones. I was anchored near the main channel before I began catching some.

"When that big one hit, I thought I had a bass," he said. McCullough, a service advisor for Northeast Rambler in Atlanta, said he fishes every chance he gets, mostly for crappie and bass.

A Hellbender lure was the nemesis of the biggest bass of the year. Josey used casting tackle and 20 pound test line to land the big one. It was 26½ inches long and 24¼ inches around.

Josey's big bass was the largest he had ever caught, and that's saying something, for in his 20 years of bass fishing he has brought in some big ones. Many of the big ones he caught this winter.

"I was one of the 95 per cent of fishermen who hang up their rods before December," he said. "Then my fishing companions and I discovered those big boys school up in the deepest water available during the winter months.

"From December 21 through February 1, we have caught four strings of bass, all of which ranged from eight to ten pounds. One string included 11 bass that weighed a total of 100 pounds and 6 ounces . . . an average of better than nine pounds apiece."

Josey divulged that he and his partners would troll a lake until they found the deep spots, then cast to it. "It really doesn't matter which lake you fish," he said. "They're all good. You just have to have the technique and experience that comes with many years of bass fishing."

He said that after he caught his biggest bass, three days later he couldn't rent a boat on that lake. Then he and his party moved to another lake, began catching big ones, and soon there was a crowd there, too. "Now, we're trying to find a third lake, and we'll keep this one a secret."

Josey said the prize-winning fish is the only one he has ever caught that topped the 14-pound mark. "I have caught two other bass that went over 13 pounds, and more than 20 bass that went over 11 or 12 pounds. I've caught nine bass that weighed over 13 pounds during 20 years of fishing, and three of these I caught this year."

He said the big one came from 12 feet of water, the deepest spot in the lake. "We found we couldn't get strikes unless we actually felt the plug bumping the bottom. I tried a sinking plug but that didn't work. The action wasn't right. They want the plug that floats, then dives on retrieve."

He said they even went so far in one lake that goes 30 feet deep as to toss the plug out, move the boat by electric motor until 70 or 80 feet of line was out, then retrieve, in order to have enough line out to get the plug deep enough.

Crabb proved that the live worm is still unbeatable as fish bait, in catching his big shellcracker bream. The 12-inch-long fish was taken on 12 pound test line on spinning tackle.

"It was just luck, I imagine," said Crabb of his big bream. "I'd been fishing for big bass and had run out of minnows I'd been using for bait. I found some worms on the shore that were extraordinarily big.

"I began to catch a couple small fish on the worms, and on one strike I just opened the bail on my spinning reel and let the fish run and play with it. The fish took out 40 feet of line before I closed the bail.

"He broke water when he hit the end of the line. That's the first time

PRIZE WINNERS IN 1968 GEORGIA BIG FISH CONTEST

Sponsored by

The Georgia Sportsmen's Federation

and

Georgia Game and Fish Commission

Category	*Weight*	*Caught by*	*Where Caught*
Black Bass	14 lbs. 14 oz.	Emory J. Josey Macon	Bear Camp Lake Irwinton
*White Bass	4 lbs. 14 oz.	Clyde Vaughan Canton	Lake Lanier
**Crappie	4 lbs. 4 oz.	Charles C. McCullough Decatur	Hartwell Lake
Bream	2 lbs. 12½ oz.	Bill Crabb Marietta	Private Lake Cobb County
Mountain Trout (tie)	11 lbs. 8 oz. (Rainbow)	Galen Harrison Gainesville	Chattahoochee River below Buford Dam
	11 lbs. 8 oz. (Brown)	Elbert Gilliam Ware Shoals, S. C.	Savannah River below Hartwell Dam
**Catfish	29 lbs.	James Chastain Marietta	Blue Ridge Lake

*Tied existing state record
**New state record

CATEGORY LEADERS FOR 1968

STATE RECORDS IN BOLD FACE

	WEIGHT	WHERE	WHEN	FISHERMAN
LARGEMOUTH BASS	14 lbs. 14 ozs.	Bear Camp Lake, Irwinton	12/22/68	Josey, Emory R.
	13 lbs. 0 ozs.	Flying S Ranch Lake, Villa Rica	2/10/68	Kunkel, Frank R.
	13 lbs. 0 ozs.	Massengale's Lake, Fayette Cnty.	7/14/68	Odom, Charles D.
	12 lbs. 14 ozs.	Jim Edwards Lake, Cobb County	3/23/68	Clark, O. R.
	12 lbs. 10 ozs.	Stuckey's Lake, Irwinton	12/28/68	Floyd, Harris
	11 lbs. 13 ozs.	Lake Walter F. George	5/25/68	Scarborough, Charles
	11 lbs. 12 ozs.	Private Lake	3/8/68	Martin, Carl
	11 lbs. 9 ozs.	Private Lake	3/10/68	Martin, Carl
	11 lbs. 8 ozs.	Lacy's Dixieland Lake	4/1/68	Pelham, William E.
	11 lbs. 8 ozs.	Lake Burton	5/7/68	Collins, Billy J.
	11 lbs. 0 ozs.	Private Lake	4/7/68	Carson, John
	10 lbs. 10 ozs.	Suwanee River	5/18/68	Corbett, Randall O.
	10 lbs. 8 ozs.	Lake Walter F. George	3/29/68	Greer, Fred W.
	10 lbs. 8 ozs.	Clark Hill		Johnson, A. A.
SMALLMOUTH BASS	**6 lbs. 2 ozs.**	**Lake Chatuge**	**7/2/68**	**Parson, Robert**
REDEYE (COOSA) BASS	5 lbs. 4 ozs.	Chestatee River	4/21/68	Hulsey, Ben J.
	WEIGHT	WHERE	WHEN	FISHERMAN
WHITE BASS	**4 lbs. 14 ozs.**	**Lake Lanier**	**3/26/68**	**Vaughn, Clyde**
	4 lbs. 13 ozs.	Lake Lanier	3/28/68	Walker, W. C.
	3 lbs. 9 ozs.	Lake Lanier	4/28/68	Anderson, J. E.
	3 lbs. 9 ozs.	Lake Lanier	4/14/68	Wadkins, Jack
	3 lbs. 8 ozs.	Lake Lanier	4/3/68	Gray, Mrs. George W.
	3 lbs. 6 ozs.	Lake Lanier	5/16/68	Wadkins, Jack
	3 lbs. 4 ozs.	Lake Lanier	5/15/68	Wadkins, Jack
	3 lbs. 0 ozs.	Lake Seminole	6/2/68	Lehman, Julian L., Jr.
BLUEGILL	2 lbs. 4 ozs.	Farm Pond, Morgan County	7/24/68	Hunter, N. H.
	2 lbs. 4 ozs.	Marshall's Club Pond, Washington	6/13/68	Marshall, A. A.
BOWFIN	**14 lbs. 0 ozs.**	**Okefenokee Swamp**	**5/5/68**	Brown, Randall Lee
CARP	21 lbs. 4 ozs.	Hales Lake, Conley	5/18/68	Tate, Johnny Mack
FLATHEAD CATFISH	**29 lbs. 0 ozs.**	**Marietta, Blue Ridge**	**5/21/68**	**Chastain, James**
WHITE CRAPPIE	**4 lbs. 4 ozs.**	**Lake Hartwell**	**4/27/68**	**McCullough, Charles C.**
	WEIGHT	WHERE	WHEN	FISHERMAN
CHAIN PICKEREL (JACKFISH)	6 lbs. 12 ozs.	Flint River	4/13/68	Griffin, Tommy M.
REDEAR SUNFISH (SHELLCRACKER)	2 lbs. 12½ ozs.	Private Lake, Marietta, Cobb Cnty.	8/26/68	Crabb, Bill
	2 lbs. 12 ozs.	Jake Lewis Lake, McDonough	4/28/68	Lewis, J. S., Jr.
	2 lbs. 8 ozs.	Smiths Pond, Lexington	4/21/68	Portney, Leo R.
	2 lbs. 5 ozs.	Private Pond, LaGrange	5/2/68	Warren, Dennis Lee
	2 lbs. 2 ozs.	Watershed Lake, Fulton County	5/10/68	Bettis, John
BROOK TROUT	2 lbs. 3 ozs.	Rock Creek	5/1/68	Nelson, Kelly M.
BROWN TROUT	11 lbs. 8 ozs.	Savannah River	12/22/68	Gilliam, Elbert
	9 lbs. 2 ozs.	Jones Creek	6/30/68	Dills, Wendell
	5 lbs. 4 ozs.	Chickamauga Creek	6/8/68	Lovell, W. L., Jr.
RAINBOW TROUT	11 lbs. 8 ozs.	Chattahoochee River	8/12/68	Harrison, Galen
	6 lbs. 12 ozs.	Lake Lanier	5/7/68	Johnson, Steve
WALLEYE	5 lbs. 0 ozs.	Hartwell	3/30/68	Davis, Galen

NO ENTRIES: Flint River Smallmouth, Spotted Bass, Striped Bass, Channel Catfish, Black Crappie, Longnose Gar, Muskellunge, Sauger, Redbreast Sunfish, Yellow Perch.

For some kinds of fish, you still can't beat a good ol' live worm, as proved by Bill Crabb of Marietta, by catching the year's largest bream . . . in fact, a new record shellcracker. The fish beat the old record by a scant half ounce, at two pounds, 12½ ounces.

Charles C. McCullough, Decatur, (right), pulled a big crappie from Lake Hartwell, and weighed it in at four pounds, 4 ounces. It turned out to be a state record . . . there wasn't even a white crappie on the books before he caught this monster.

I've ever seen a bream break water. I thought it was a little two-pound bass then, but that fish put up the awfulest fight. He fought harder than a two-pound trout," Crabb declared.

Ten pound test line was worn down pretty thin by the time Harrison managed to land his 20-inch-long rainbow. He used a shyster on spinning tackle. The fish measured 18¼ inches at the girth. He caught the big fellow on spinning tackle.

The pastor of Oakdale Baptist Church, South Canton, used a deep running silver Rebel while fishing for largemouth and white bass on Lake Lanier in the Gainesville vicinity, when he hooked his state-record-tying white bass.

"He really did put up a good fight," Reverend Vaughan said. He said the largest largemouth bass he'd ever caught weighed about nine pounds, but the big white bass, though barely half the size in weight, fought harder than did his biggest largemouth.

Reverend Vaughan likes to fish Lanier regularly with his companion Gene Lawson, who was along the day the big white was caught. But lately, he's been too tied up to fish much.

"It was really a surprise to learn the fish tied the state record," he said. "I didn't even think about it until we got to Gainesville Marina with the fish, and Ed Cox wanted to weigh it to be sure. We weighed that fish in three or four different places to be sure we had the weight right."

Chastain's flathead cat was taken while trolling a Thin Fin Plug, on 10 pound test line. It was 40¼ inches long and 21 inches around.

Chastain was trolling in Lake Blue Ridge for bass and walleye, and was doing pretty well. He'd caught several walleye, some bass and a few crappie.

"When that fish hit, I thought I'd caught a little fish that had gotten under a rock or something," said Chastain. "He just didn't move. Then finally, he started to move, and the line just kept going out. It took me 35 minutes just to get him to the top of the water where I could see him. It took even more time to get him close enough so that my fishing partner, Robert White, also of Marietta, could get his hands in the fish's mouth and lift it into the boat. It was too big to use a landing net."

All told, 42 fish entered during the 1968 contest qualified for Master Angler's Awards. Several categories had no entries at all, but in the largemouth bass list there are 14 entries that qualified (10 pounds or more) for the certificate.

Those receiving Master Angler's Awards are listed in the chart above.

Minimum Weight for Certificate	State Records	World's Record
5 lbs.	BASS, FLINT RIVER SMALLMOUTH 6 Lbs. 5 ozs.—James Lewis, Cordele, Flint River, Feb. 20, 1967	No Record
10 lbs.	BASS, LARGEMOUTH 22 lbs. 4 ozs.—George Perry, Brunswick, Montgomery Lake, June 2, 1932. World's Record.	Same
	Second—17 lbs. 14 ozs., Nickie Rich, Marietta, Chastain's Lake, April 27, 1965	
	Third—17 lbs. 9 ozs., Emory Ounahoo, Gainesville, Lake Lanier, Dec. 19, 1965	
5 lbs.	BASS, SMALLMOUTH 6 lbs. 2 ozs.—Robert Parson, Hiram, Lake Chatuge, July 2, 1968	
5 lbs.	BASS, SPOTTED 6 lbs.—Elton Elrod, Cartersville, Lake Allatoona, Feb. 11, 1967	8 lbs.
20 lbs.	BASS, STRIPED 63 lbs. 0 oz.—Kelly A. Ward, Dublin, Oconee River, May 30, 1967	Same
2 lbs.	BASS, REDEYE (COOSA) 2 lbs. 10 ozs., John R. Cockburn, Jr., Dalton, Jacks River, July 4, 1967	No Record
3 lbs.	BASS, WHITE 4 lbs. 14 ozs.—Albert Pittman, Gainesville, Lake Lanier, Jan. 11, 1966	5 lbs. 2 ozs.
	4 lbs., 14 ozs.—Clyde Vaughan, Canton, Lake Lanier, March 26, 1968	
1½ lbs.	BLUEGILL 2 lbs. 8 ozs.—Lee Berry, Milledgeville, Altamaha River, Sept. 29, 1965	4 lbs. 12 ozs.
8 lbs.	BOWFIN 14 lbs., 0 ozs.—Randall Lee Brown, Lake Park, Okefenokee Swamp, May 5, 1968	
20 lbs.	CARP 35 lbs. 6 ozs. Albert B. Hicks, Sr., Atlanta, Sweetwater Creek, April 17, 1967	55 lbs. 5 ozs.
15 lbs.	CATFISH, CHANNEL No Official State Record	57 lbs.
15 lbs.	CATFISH, FLATHEAD 29 lbs., 0 ozs.—James Chastain, Marietta, Lake Blue Ridge, May 21, 1968	
3 lbs.	CRAPPIE, BLACK 4 lbs. 3 ozs., Kenneth Matthew Kirkland, Jonesboro, Lake Jodeco, April 30, 1967	5 lbs.
3 lbs.	CRAPPIE, WHITE 4 lbs., 4 oz.—Charles McCullough, Decatur, Lake Hartwell, April 27, 1968	5 lbs. 3 ozs.
15 lbs.	GAR, LONGNOSE No Official State Record	50 lbs. 5 ozs.
Any Weight	MUSKELLUNGE 38 lbs.—Rube Golden, Atlanta, Blue Ridge Lake, June, 1957	69 lbs. 15 ozs.
5 lbs.	PICKEREL, CHAIN (JACKFISH) 9 lbs. 6 ozs.—Baxley McQuaig, Jr., Homerville Feb., 1961, World's Record	Same
4 lbs.	SAUGER No Official State Record	8 lbs. 5 ozs.
1½ lbs.	SUNFISH, REDBREAST No Official State Record	No Record
2 lbs.	SUNFISH, REDEAR (SHELLCRACKER) 2 lbs. 12 ozs.—C. E. Morris, Appling, Private Pond, May 2, 1987	4 lbs. 12 ozs.
15" or 2 lbs.	TROUT, BROOK 2 lbs. 1 oz.—Jay Tipton, Smyrna, Toccoa River, April 1, 1967	14 lbs. 8 ozs.
18" or 5 lbs.	TROUT, BROWN 18 lbs., 3 ozs. William M. Lowery, Marietta, Rock Creek, May 6, 1967	39 lbs 8 ozs.
24" or 6 lbs.	TROUT, RAINBOW 12 lbs. 4 ozs.—John Whitaker, Ellijay, Coosawattee River, May 31, 1966	37 lbs.
2 lbs.	PERCH, YELLOW No Official State Record	4 lbs. 3½ ozs.
5 lbs.	WALLEYE 11 lbs.—Steven Kenny, Atlanta, Lake Burton, April 13, 1963	25 lbs.

GEORGIA BIG FISH CONTEST

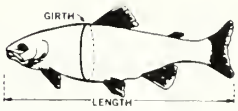
The Georgia Sportsmen's Federation and Georgia **Game & Fish** Magazine sponsor a big fish contest for the State of Georgia during each calendar year.

Shortly after the first of each year, a Garcia 5000 reel and matching 2521C Garcia Conolon rod furnished by the Georgia Sportsmen's Federation will be given to the angler catching the largest fish in any one of six categories: black bass, white bass, crappie, bream, mountain trout, and catfish. In addition, the angler catching the largest bass each year will have his name engraved on the Garcia Black Bass Trophy.

Entries made on fish caught after December 31 will be entered in next year's contest. Entries should be made as soon as possible after the fish is caught.

How To Enter

1. Have fish weighed, measured, and entered at any official Georgia Sportsmen's Federation Weighing Station or any office of the State Game and Fish Commission. If no such station is available, have the fish weighed and measured in the presence of two witnesses who sign the official entry blank or a facsimile.
2. Before the affidavit can be accepted, the truth of the statements must be attested before a qualified officer such as a notary public, justice of the peace, sheriff, municipal clerk, postmaster, member of state or local law enforcement agency, wildlife ranger, etc.
3. There is no entry fee for the contest.
4. Any Georgia licensed angler, resident or non-resident, may enter the contest by completing the official affidavit.
5. Fish must be caught on sporting tackle and be hooked and landed by the entrant.
6. Fish must be caught in the State of Georgia during the legal angling season for the species taken.
7. Angler can submit as many entries as he wishes. Certificates will be awarded for all fish surpassing the minimum standards in the chart regardless of the year caught, but contest prizes will be awarded only in the general black bass, white bass, crappie, bream, mountain trout, and catfish categories for fish caught this year. Awards will not be given for specific species within these categories such as the largest white crappie, black crappie, etc. due to the difficulty of exact identification of the species in these categories. In the event of a tie, duplicate awards will be given.
8. Clear sideview black and white or color photographs of the fish, preferably with the angler, should be submitted with each entry which become the property of Georgia **Game & Fish** Magazine.
9. Affidavits should be mailed to Big Fish Contest, Georgia Game and Fish Magazine, Trinity-Washington Street Building, 270 Washington Street, Atlanta, Georgia 30334.



HOW TO MEASURE A FISH Girth: should be measured around the largest part of the body as shown in diagram. Length: Measure along a flat surface from the extremity of the mouth to the extremity of the tail.

PRINT OR TYPE ALL INFORMATION

Kind of Fish_____ Weight_____lbs._____ozs. Length_____ins.

Girth_____ins. Bait used_____ Type Tackle_____

Rod Brand_____ Reel Brand_____ Line Brand_____ Test_____

Where caught (Name of Lake or Stream)_____

Location of Lake or Stream (County or Nearest Town)_____

Date Caught_____

Angler_____

Home Address_____

City and State_____

Telephone Numbers: Business:_____ Home:_____

Fishing License Number:_____

"I hereby swear that the above statements are true; that in taking this fish I complied with the contest rules, fishing regulations, and that the witnesses hereto saw this fish weighed and measured. I consent to the use of my name in connection with the Georgia State Fishing Contest."

_____
(Signature of person who caught fish)

We, the undersigned, witnessed the weighing and measuring of the fish described above and verified the weight and measurements given.

1. Signature_____

   Address_____

2. Signature_____

   Address_____

Sworn to and ascribed before me this_____day of_____, 19____

_____ Title:_____
(Signature of a qualified officer—See Rule 2)

Send all entries to: Georgia Game & Fish Magazine, Trinity-Washington Street Building, 270 Washington Street, Atlanta, Georgia 30334.

WHAT ABOUT WHITETAILS?

By Dan Marshall and Dick Whittington
Game Biologists

Good habitat and protection from poachers and dogs enabled this buck to thrive.

The whitetailed deer is native to the Central and Eastern United States. It has the largest range of any single big game animal in North America, and is considered the most important big game animal because of its wide distribution.

The whitetailed deer certainly is the most important big game animal in Georgia. The deer population is probably in excess of 100,000 animals in Georgia at the present time. At one time during the history of our state, deer were not so numerous. During the late 1700's and early 1800's, their range was gradually decreased because of uncontrolled hunting and increasing agricultural clearing of woodlands. The deer herds decreased accordingly. By the late 1800's deer were wiped out in North Georgia. Some deer herds were left on the coastal islands, and a few herds were isolated on protected plantations in South Georgia.

The first attempt to re-establish deer in North Georgia was made by the U. S. Forest Service during 1928. Since then, the State Game and Fish Commission began restocking deer and establishing game management areas across Georgia. Due to restocking programs, improved habitat by changing land use, better game laws and enforcement, the whitetailed deer is again present and abundant in most areas of the state. Most of the 159 counties now have a deer season, and in the near future, probably all counties will have huntable deer populations and be opened to deer hunting.

Many studies have been made concerning the life history of the whitetailed deer. A good deal is known, but much is yet to be learned. Information obtained by biologists shows the breeding season of Georgia deer to be from mid-October to mid-December, depending on the location in the state. Generally, South Georgia deer breed earlier than North Georgia deer. The gestation period is about seven months, and fawns are born from mid-April to mid-June. Does are capable of breeding when about one and a half years old. Usually, one fawn is produced the first year and two each year thereafter. Does continue to breed as long as they live, but deer seldom live to be more than ten years old in the wild.

Fawns remain near their birthplace for two to three weeks after birth. At about one month of age they may follow the doe and begin to browse. They continue to nurse until about four to five months of age.

Bucks are capable of breeding at one and a half years of age. They may or may not actually breed, depending upon competition from older bucks. Bucks take no interest in rearing the young. This is left entirely to the doe.

The range occupied by deer has been

a subject of much controversy. Recent information indicates that doe deer may range on an area of only about 100 acres, in some areas. Bucks, particularly during the breeding season, will probably range over several hundred acres.

Deer are primarily forest animals. They occur in dense mountainous forest, as well as the piney woods of the coastal plains. The deer is a ruminant, cud-chewing mammal like cattle, sheep, goats, and camels. Deer feed on a wide assortment of herbaceous materials and certain kinds of fruits and nuts when available. Deer food is usually referred to as browse. Browse consists of leaves, twigs, and buds of vines and woody plants.

Deer populations can be maintained or increased by employing certain forest management practices. Thinning timber to encourage plant reproduction produces browse for deer. Clear cutting in strips or blocks provides both cover and stimulates growth of a variety of plants which may be utilized by deer. During timber operations, mast or acorn producing trees should be left, particularly white oak species. They provide winter food for deer as well as other wildlife species such as turkeys, squirrels, and quail.

Supplementary food plots planted to white clover or rye during the fall will provide food for deer during the critical winter months. Food patches ranging in size from one to five acres and interspersed in wooded areas are ideal. Plantings should be made about the first or middle of September to obtain good growth before cold weather.

In some areas, particularly the lower coastal plain of South Georgia, deer are in direct competition for food with range cattle and feral swine. All three species utilize many of the same food items. If deer management is the primary objective on such areas, the cattle and swine should be removed.

A very important aspect of deer management is to adequately harvest animals. Hunting is the only method to keep deer in balance with the habitat to prohibit overbrowsing. In some areas, limited legal hunting of does under Game and Fish Commission regulations may be necessary.

On the other side of the coin, deer can be easily overharvested, especially on small tracts that are heavily hunted. In addition to limiting hunting pressure, deer should be protected from illegal hunting, especially out of season hunting, illegal dogging in areas not allowed by law, and night hunting. Cooperation with local wildlife rangers in reporting violations and encouragement of local judicial officials to vigorously prosecute wildlife cases can be the difference in good or bad deer hunting.

In addition, control of free running domestic and feral dogs on the area under management is essential. Dogs should not be allowed to range at will through the woods without their owner, especially during the spring and summer months when does are pregnant or with young fawns.

Many new problems have arisen with the increase and spread of deer throughout the state. One of the most vexing problems is that of damage to agricultural crops, gardens, and orchards. Deer damage is most likely to occur where deer concentrations are dense, but may sometimes occur in areas containing a sparse population. The following suggestions and recommendations will eliminate or help to minimize deer damage.

When selecting an area for a garden, avoid choosing a location near a wooded area where deer are present. It is a good idea to locate gardens near houses, since deer are usually shy of inhabited areas.

The best method to eliminate deer damage to the garden is to construct a deer proof fence. The most economical deer proof fence is the overhanging type shown.

This fence can be constructed of six foot, two-inch high mesh chicken wire. The bottom edge of the wire should be fastened to the ground with stakes and extended up at an angle of about 50°, as shown in the photograph. The top of the fence should be nailed on the post four feet, six inches above the ground. Posts should be spaced 15 feet apart.

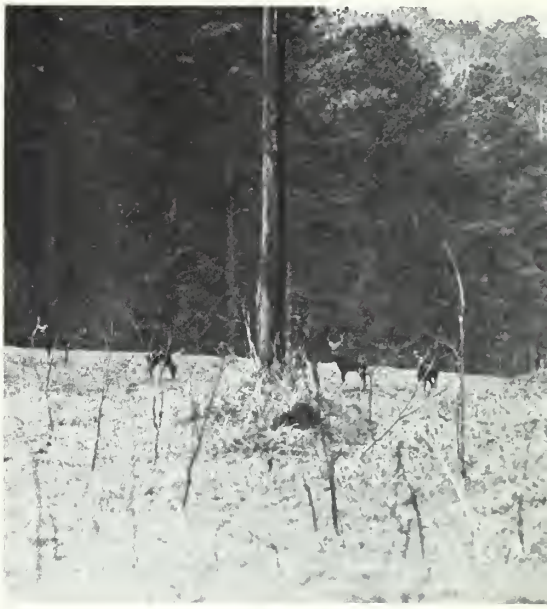
The fence works in only *one* direction. It slants down toward the area to be protected (garden). Deer usually try to go through fences rather than jump them. The design of this fence will discourage jumping.

The wire for this fence will cost approximately $33 to enclose one-half acre. The initial expense is high, but it will provide complete protection to the garden and should last for several years.

Several deer repellent compounds have been developed and are usually effective in repelling deer from protected areas. The effectiveness varies from area to area and depends upon the number of deer in the area. Information concerning deer repellents can be obtained by writing the manufacturers listed at the end of this article. The use of tankage or blood meal (described in the following section) has been also successfully used in gardens to repel deer.

Deer depredation in orchards occurs mostly on newly planted or young apple and peach trees. Browsing decreases with tree growth, and is negligible after the second or third year.

Browsing of young fruit trees has been successfully discouraged in some areas by using tankage or blood meal as a repellent. Tankage is animal tissue residue (50% protein, 5% fat, and 3% crude fiber and other materials). It is sometimes used as a supplement for hogs. Tankage or blood meal is applied in 3″ x 5″ grade AA tie part bags (sold by Millhiser Bag Co., P. O. Box 1117, Richmond, Virginia) which are hung on fences, stakes or trees around the area to be protected. Tankage costs about $5 per hundred pounds, and the small bags cost 1.2 cents apiece in large quantities. One hundred pounds of tankage will fill about 500 small bags. If used on small trees, some bags will be destroyed by dogs, foxes, and other animals that reach the bag and eat its contents. Both tankage and blood meals can be purchased from animal packing or processing companies.



Deer are more numerous in Georgia than they have been since the late 1700's. Biologists estimate there are more than 100,000 in the State. They are commonly seen on the Commisison's Clark Hill Management Area. This picture was made a few weeks after the 1968 hunts.

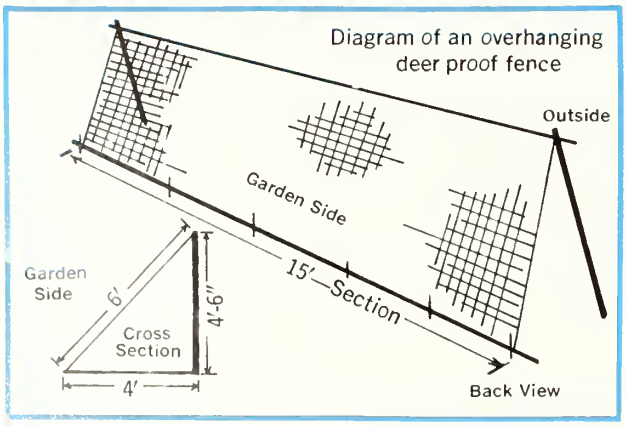
Chemical repellents are available for orchard use and information can be obtained by writing the manufacturers listed. Taste repellents are generally more effective in repelling deer than scent repellents like tankage, since they can be applied directly to the plants to be protected.

Damage to such agricultural crops as soybeans, peas, peanuts, and corn may occur in areas containing a high deer population. In small fields, tankage bags tied on a fence or trees at 15 to 20 foot intervals will minimize or eliminate deer damage. The electric fence has been used effectively in some

Right: This type of fence keeps deer out but is much more expensive than chicken mesh wire. This type must be eight feet high.

Below: Smell-type repellents like blood meal or tankage in cloth bags can be tied on to trees or fences to help repel deer. While not as effective as a fence or taste-repellents, they are cheaper to use.

Above: In some areas where deer are so numerous, they are a pest to gardeners. One of the authors, game biologist Dan Marshall, shows how to construct an over-hanging deer-proof fence described in the article.



parts of the country, but the cost of construction and operation may prohibit use, depending on the value of the crop to be protected.

Buffer food strips tend to reduce damage to other crops if properly spaced and made large enough. Three or four acre strips of peas in summer and rye in winter established on field borders adjacent to wooded areas or near principal deer travel routes have been successfully used in some areas.

Carbide guns are useful in reducing deer damage to such crops as watermelons. The guns should be set to explode at 45 to 60 minute intervals and moved to a different location in the field each night for the best results. However, they are unpopular with persons disturbed by them, especially at night.

To help prevent deer damage on large farms (small ones too), farmers can reduce deer concentrations by allowing their friends and reputable sportsmen to hunt and harvest this prized game during the hunting season. This method also can be employed to provide additional income to the farmer by charging a nominal fee for hunting privileges on his property.

True, deer sometimes are pesky. With the inevitable expansion of the deer herd and increasing popularity of deer with hunters, some problems will occur. But with a few precautionary methods, extensive crop damage can be prevented in selected areas. Eventually, landowners will adjust to the deer, and will begin to realize the advantages to themselves, as well as Georgia's sportsmen. It won't be long.

Manufacturers of Deer Repellent Compounds

Morton Chemical Company
Agricultural Division
110 North Wacker Drive
Chicago, Illinois 60606

NASCO, Incorporated
Fort Atkinson, Wisconsin 53538

O. E. Linck Company
Division of Walco-Linck Corporation
Clifton, New Jersey

Ringwood Chemical Corporation
Ringwood, Illinois 60072

Top: Don and Buster Bradford compare smallmouth bass taken from Lake Chatuge, hotspot for Georgia fisherman who like the chance of tieing into a lunker bass, and scrappy smallmouth.

Right: Doug Yelton, Ewing, Tenn., fisherman keeps a tight line on a Lake Chatuge smallmouth on the way down.

Bottom: A good string of bass is lifted into the boat. The point in the background gave up 12 bass in two days fishing.

Little Lake...Big Fish

North Georgia's Lake Chatuge By Carl O. Bolton

The bass skittered across the water for fifteen feet, reversed its field and passed me again as I stood open mouthed, looking at its frantic efforts to get rid of the treble hooks dangling from its upper jaw.

After three trips lengthwise of the boat, then with a vicious lunge and amid another series of gyrations and head shaking, the plug flew into the air, and the largemouth was gone.

"What are you trying to do, get five jumps out of it? asked my fishing partner, "Buster" Bradford. "All I've ever seen you get were four jumps, and with this one you failed to get even one."

I sat down and looked at him rather sheepishly. After all, losing the fish was strictly my fault. The bass had struck just as I was in the act of lifting the plug out of the water. It took me so by surprise, I simply had not given it enough line to offset its determined effort for freedom.

"O well, he won fair and square, and we have better ones in the live well," I said. "Let's hit another point." As I spoke I made one last cast, and instantly I was fast to another fish. I had no trouble boating this one, a half-a-pound white bass.

"Guess I'll never live that one down," I stated as "Brad" reached for the starter. What he was referring to was my urging a smallmouth bass I had hooked on a bass "bug" a year or so earlier to "jump" another time. "You should always get five jumps out of a bass," I had bragged as the bronzeback put on a good acrobatic show. On the fifth jump the "bug" went high in the air, and the fish headed for parts unknown. No — my so called "friends" will never let me forget that bit of bragging.

There was no need of bragging about the five smallmouth and one large mouth we had in the live well in the boat. They spoke for themselves. They were a bit over three pounds (weighed later at the dock), not lunkers, but the fishing had been furious while it lasted, early that morning. And how many bass fishermen will turn their noses at three pounds of fighting small mouth?

We were fishing out of the Farmer and Lynch dock at Young Harris, Ga., located just off U.S. Highway 76, 3½ miles from Hiawassee, on what I consider to be one of the best bass lakes in the country.

Lake Chatuge, one of the smaller of the TVA impoundments, has a shore line of 132 miles. It straddles the state line between Georgia and North Carolina, and to a bass fisherman, just about all those 132 miles of shore line look "bassy."

Brad and I had hurried out of the cove sheltering the dock just as the dawn light began streaking across the low mountain peaks which ring the entire area. Red lightning flashed in the north. We wondered how it would affect the fishing.

The afternoon before, at six o'clock, Bradford had boated the first fish, a two pounder from near one of the many tree tops dotting the lake near a bassy looking point.

Thirty minutes later, just across a small inlet on another point a small mouth had struck seemingly before his plug touched the water. What ensued during the next fifteen minutes, is the thing that makes a fisherman keep going back.

We had eased around the point and again Bradford had a good smallmouth on. "My gosh, give me a chance will you?," I had blurted out, and in the same instant I felt the jolting strike as a good smallmouth slammed into my lure.

The fish "bull-dogged" down deep as only a smallmouth can do. Before I slipped the net under my fish, Bradford was tied into another one.

I netted it for him and we both began casting the 600 series Bombers toward the gravelly shore. We each hooked and lost a couple of fish and Bradford put one more in the boat. Five bass landed and four lost in so short a time had us both on edge. Several casts later we sat down realizing the wild spree was over.

Young Tracy Cook, son of Bob Cook, Elizabethton, Tenn., has a hard time holding the 7½ pound largemouth and a 4½ pound smallmouth bass taken from Lake Chatuge.

Chatuge lake is without a doubt a prime place to tie into a B-I-G bass! Our recent trip produced fast and furious fishing (for a few minutes each time) upon three separate occasions during our two days of fishing. We accounted for about twenty bass, mostly smallmouths, a few "whites," several crappie, and a blue gill that weighed exactly one pound.

We were happy with our catch until we saw the 7½ pound largemouth caught by Bob Cook, one of the Tennesseans on the trip. Bob also took a 6½ pound largemouth the second morning. One lucky angler weighed a 9¾ pounder the same day.

Late last March, Glynn Padgett, a fishing tackle salesman from my home town, doing a bit of master minding to show his fishing buddies that he was an "expert," cast a plug on which he had attached a strip of pork rind into the tree tops sticking out of the water.

As he worked the plug, a "hellbender," out of the branches, he was as much surprised as his buddy was to suddenly feel the plug take off in the opposite direction, just as if he had lassoed a bulldozer.

His six pound test monofilament would have been no match for the monster he had tangled with, without a bit of Irish luck. A few minutes later he lifted the largemouth from the water and his eyes bugged out like a pot leg.

He was staring at a fish that weighed 11 pounds and five and one half ounces. But what gives the story an unbelievable dream-like ending, next morning he did the same thing, using the same Hellbender, but with a larger line. His second big mouth in two days weighed eleven pounds, six ounces!

I wasn't on the trip, so I didn't get a picture of the 23 pounds of fish for my newspaper until a couple of days later when Glynn took them out of his freezer. I wouldn't have missed getting a picture of those two, even if they were frozen to a cardboard.

The fellow who started the run of Tennesseans to this fabulous lake was Don Bradford Jr., one of the best bass fishermen in the state. On two successive days fishing he took only 8 bass. But listen to the weights, one 10 lbs. 6 ozs., three that weighed a total of 23 pounds, and four that were five pounds each or better.

Fishing the third day, he came out with three bass weighing 22 pounds. On his first trip there he took one 8 pounder and one that tipped the scales at a bit over 9 pounds.

Fishing at the same time when Padget got his two 11 pounders, Bradford's catch was a ten pound largemouth.

Chatuge is not a deep lake as some lakes go. But everything must be right for the production of big bass. It's nestled in fertile valleys fed by several cold water creeks and the Hiawassee River. It's far enough south to enjoy long "growing seasons," by Tennessee standards.

The Georgia creel limit is liberal so far as bass go, 15 per day, and the license is valid in either Georgia or North Carolina, although North Carolina allows only 10 bass per day. An out of state Georgia license is only $7.25, and a 5 day permit is a measley $2.25. Resident licenses are only $2.25 a year, one of the lowest fishing licenses in the United States.

As in all Southern states, fishing for the small tasty "pan fish" is indulged in by thousands of anglers. Lake Chatuge bream and crappie fishing is excellent in April and May. Bluegills are plentiful weighing a full pound, with many going to 1¼ pounds.

Georgia, long noted for its big bass, especially largemouth, has many lakes to whet the appetites of visiting fishermen. I have fished a few of them and was impressed each time.

I suspect that every time a fisherman pushes his boat from any one of dozens of good fishing docks, his mind races back to another bass fisherman who in 1932 lifted from out of the depths of a small Georgia oxbow lake a monster largemouth weighing a phenomenal 22 pounds, four ounces.

Who can tell when this long standing record will be broken? It's a good mark to shoot for. A lake like Chatuge just might harbor one a bit bigger.

Every bass fisherman knows or should know, of the excellent largemouth fishing in the Peach State. I doubt if a great percentage of the fishermen realize the potential thrill of tying into good smallmouth bass such as inhabit Lake Chatuge.

There is no argument about the fighting ability of this rugged individualist. It is the gamest of the two popular species, and lets loose all its concentrated energy when hooked. One can tell almost instantly when a smallmouth strikes. It's a jolting-hard smash, and he usually heads down in hard hitting lunges, though at times, especially if hooked with a fly rod "bug," the aerial acrobatics he displays are enough to quicken the pulse of anyone.

There will not likely be anything like a new world's record smallmouth come from Chatuge, but I'll settle for those which are there in great numbers. Largemouth — well now, that's a different fish, and the State of Georgia usually comes through with its share of huge ones. Chatuge and several small lakes nearby such as Blue Ridge, Nottely, Burton, then the larger waters such as Lanier, Hartwell, Clark Hill, Seminole, Walter F. George, and others could very well produce that new world record largemouth bass.

But for that pugnacious, scrappy fighter who likes the cold, clean waters of streams and lakes, the streamlined smallmouth, "Old Bronze Back" himself is mighty hard to beat.

Lake Chatuge and this prime fish go well together.

Put POUNDS in your POND!

By Phil Pierce
Fisheries Biologist

Fertilizers and fertilization are not new to man. Ponds have been fertilized to increase fish production in Europe and Asia for thousands of years.

There are basically two types of fertilizer — organic and inorganic. Organic fertilizers are those wastes containing carbon and derived from animal or vegetable matter. This type of fertilizer is not desirable for fish ponds because it can culture disease, reduce the oxygen in the pond as it decays, and produce large quantities of green, slimy filamentous algae that interferes with fishing and lowers fish production.

Inorganic fertilizers are those derived from elements not directly associated with animal or vegetable matter. These inorganic or chemical forms of fertilizer do not in themselves culture bacterial disease, reduce available oxygen through decay, or favor the growing of undesirable forms of algae.

It should be understood that fish do not feed directly on the fertilizer. Fertilizer actually makes available nutrients (nitrogen, phosphorous, potash, calcium, etc.) that microscopic plants and animals can use. These micro organisms in the water feed larger forms of aquatic organisms including underwater animals and insects which in turn provide food for the fish. This process is called the "food chain." Without the important link of sufficient nutrients, fish production could not exist.

The amount of fertilizer necessary to properly fertilize a fish pond in Georgia is about eight to twelve applications per acre per year. Each application consists of one bag of regular pond fertilizer per surface acre of pond. Fertilization should begin when the water temperature is less than 65°

F. in the spring, and continue until the water temperature is less than 65° F. in the fall. Fertilization is considered adequate when a green plankton "bloom" is produced in sufficient quantity to prevent sunlight from penetrating deeper into the water than 12 to 14 inches. Proper fertilization not only increases fish production fourfold, but also discourages most types of undesirable aquatic weeds from becoming established by "shading" out the necessary sunlight on the bottom that they need to grow.

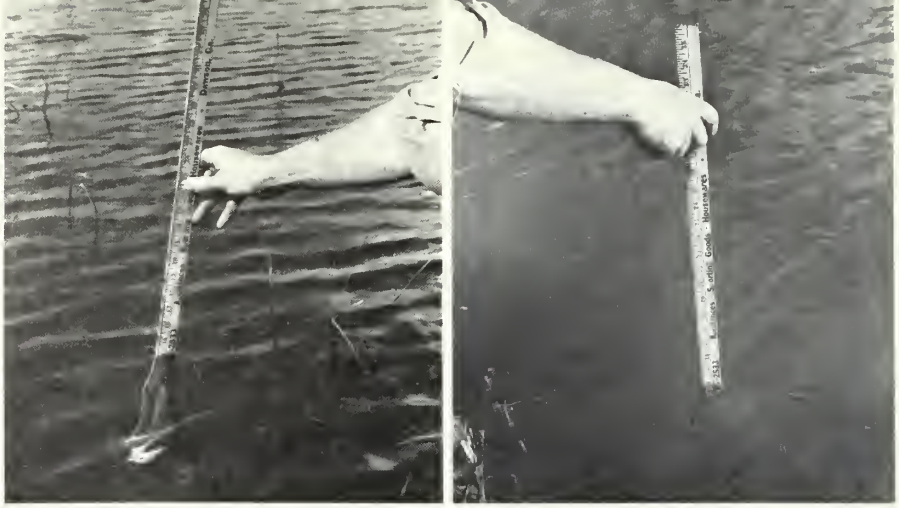
It is better not to fertilize at all than to only partially fertilize, since the increased fertility will encourage undesirable aquatic weed growth. Fertilization must be adequate, or aquatic weed problems are inevitable. If aquatic weeds are already present in your pond, they should be removed by using a herbicide prior to fertilization. Contact the Georgia Game and Fish Commission's nearest fish biologist for recommendations concerning aquatic weed control.

To produce a plankton "bloom" as early as possible, it is recommended that in the beginning, two bags of fertilizer per surface acre be applied at weekly intervals until the green "color" is adequate. After that, the pond should only be fertilized using one bag of fertilizer per surface acre when the "color" begins to fade.

Spreading fertilizer or lime from a boat works best until the bloom is established. Afterwards, a fertilization platform is better.

Research has shown that many ponds in Georgia are low in lime; therefore, if after the third application of fertilizer the pond water has not developed a desirable "bloom," the pond should be limed with builders lime (hydrated lime) at the rate of 100 lbs. per surface acre. If the need for lime was the cause of poor fertilization success, the pond water should "color" within ten days after liming.

If this proves effective, the pond should then be limed with agricultural limestone (pasture lime) at the rate of 2000 lbs. per surface acre. This lime should last two to three years. Continued use of hydrated lime is not nearly as beneficial as agricultural lime since it does not neutralize the acidity in the pond bottom nearly as effectively as does the agricultural limestone. If liming is not successful, contact the Game and Fish Commission.



How do you tell if a pond needs fertilizing? If you can see white paper on the end of a ruler 14 inches deep (left), the water is too clear. After fertilization, the green plankton "bloom" prevents the end of the stick from being seen, a good sign (right).

Even though many nutrients are necessary for proper plant and animal growth, greater quantities of nitrogen, phosphorous, potash and calcium are utilized than any other elements. For this reason, these are generally in more demand than is usually available without fertilization. Of the major nutrients in pond fertilizer, phosphorus is more limited, since it is readily "fixed" in an unavailable form by iron in the pond bottom. It is not commonly leached into the pond during rain as nitrogen, potash, calcium and other elements often are. Nitrogen is also added to the water from the atmosphere, and through the decay of plant and animal matter in the pond.

In older fertilizer ponds, it has been found that only phosphorus is necessary (unless lime is also needed) to produce a plankton bloom, since sufficient nitrogen and potash generally accumulate in the pond mud over the years. However, it is advisable to fertilize the pond early in the spring with regular pond fertilizer, and then switch to super phosphate at the rate of 50 lbs. per surface acre to maintain the "bloom." This practice can reduce fertilization costs by fifty percent.

Fertilization Techniques:

Prior to the development of concentrated pond fertilizers (20-20-5 and 16-16-4), it was necessary to spread the fertilizer evenly over the shallow areas (less than six feet deep) of the pond. Even now, this technique is still recommended until the "bloom" is established.

One of the latest fertilization techniques is to place the fertilizer on platforms, allowing the fertilizer to slowly leach into the water. The advantage of this procedure over placing the fertilizer directly on the pond bottom in shallow water is that much of the phosphorous is immediately wastefully tied up in the pond mud near the bag. This is not true if the fertilizer is placed on a platform away from shore. This same platform can be used for both regular pond fertilizer, super phosphate and lime. However, if the pond is in great need of lime, it should be spread over the entire pond as mentioned previously. Do not place the fertilizer on platforms before an adequate "color" has been established through spreading. Each 6′ x 6′ platform will fertilize five acres of water.

Materials Needed For Constructing One 6′ x 6′ Fertilizer Platform:

Lumber (Creosoted)

Four six-foot 2″ x 4″ 's

Sufficient 1″ lumber to cover the top allowing for a ½″ space between each board.

Nails,

Use rust and corrosive proof nails.

Flotation

Four styrofoam blocks approximately 12″ x 12″ x 5″.

Wire

Enough to fasten styrofoam blocks to underside of platform and to reach the bottom allowing for fifteen (15 feet of slack.

Anchor

Two cement blocks or equivalent.

Factors Effecting Fertilization Results:

Unfortunately fertilization does not cure all of the ails associated with pond

management. The following are considered to be the main causes of poor fertilization success.

Excessive Water:

Fertilization is not practicable for ponds having large quantities of water flowing through them most of the time. Even periodic heavy "flushings" can reduce the fish production drastically, making the benefits of fertilization questionable. To correct large flow problems, a diversion ditch should be constructed. The feasibility of such a ditch can be determined after contacting the local Soil Conservation Service technician or a qualified consultant. Slight excessive water flow problems can be corrected by installing a bottom discharge drain.

Insufficient Water:

It is generally not practicable to fertilize ponds whose water levels fluctuate greatly during the growing season due to leaks, inadequate water sheds, or irrigation demands.

Muddy Water:

Ponds that are muddied after each rain should not be fertilized, since a plankton bloom cannot survive under such conditions. If the watershed cannot be altered to reduce this common problem, one should not expect top fish production. Proper land management must often precede water management.

Deep Water:

Since ninety percent of the fish food organisms are produced in water less than six feet deep, deeper ponds produce less pounds of fish than shallow ponds. The ideally constructed pond has no water less than two feet deep and 70% of the pond does not exceed six feet in depth. One should take the depth of his pond into consideration when determining its production potential.

Shallow Water:

Extremely shallow edged ponds generally do not react favorably to fertilization, since undesirable types of aquatic vegetation readily become established on the shallow sunlit edges and utilize the fertilizer. Such aquatics do not provide nearly as much food for the fish food organisms as does plankton algae. At the same time, they make sport fishing impossible. Such ponds should be renovated by having the vegetation killed out and the edges deepened to a minimum of two feet. This allows the fertilization "bloom" to discourage aquatic vegetation from becoming re-established.

Fish Population Balance:

Fertilization can increase fish production. However, it should be understood that such an investment (averaging $20.00 per surface acre) is totally wasted if the fish population is not in balance. Therefore, it is not advisable to expect a pond that is out of balance to produce improved fishing through fertilization alone. The best guarantee for producing and maintaining a good fish pond is through proper construction, accurate stocking, adequate fertilization where practical, and sane harvest.

Contrary to old beliefs, it has been proven that ponds can be over-fished, particularly the first year. To protect against this most common cause of pond failure, it is recommended that not more than 150 lbs. of fish per surface acre be harvested annually from a fertilized pond, and that all bass under ten inches in length be released back into the pond unharmed.

Proper fertilization helps to prevent weeds by shading them out, but pond edges should be deeper than two feet if weed growth is to be completely prevented.

Left: In some ponds, the addition of lime (below) is necessary for the fertilizer to produce a bloom. Lime should be tried if the third fertilization fails to produce results.

Below: One bag of regular pond fertilizer for each surface acre of the pond is the proper ratio.

National Wildlife Week

Mountains, seashores, and towering forests usually come to mind when we talk about natural resources. Conservationists are warning that another resource, our abundant wildlife, could be lost in the path of progress and expansion. These hallmarks of civilization take an ever-increasing toll of natural areas, destroying them as homes, or habitats, for wildlife forever.

Once America was a land of forests, marshes, woodlots, and fields, with clean water and fresh air. Wildlife seemed a part of every landscape. Now the serene countryside is being transformed into a land of sprawling suburbs, giant airports, super highways, and mammoth shopping centers. As these appear, the living space for our wildlife vanishes.

Before it is too late, we must stop and consider what this loss of natural environment will mean. Animals from deer to robins need food and cover, clean waters, and room to roam — if they are to survive. Areas destroyed by our civilized progress are finished as far as wildlife habitat is concerned.

Spaces for wildlife cannot be treeless subdivisions; they cannot be factory sites or drained marshlands; they cannot be stream beds for sewage or speeding lanes for power boats.

Providing habitats, those vital living areas for wildlife, is a matter of choice and economics. The choice is simply: "Do we value this heritage of natural beauty?" If so, we must decide that the beauty of wild animals in natural settings is worth the expense and effort of developing and protecting habitats.

The presence of wildlife in our fast-moving world means that we have not yet destroyed the delicate balance of nature. The prospect of moon travel may fire our imaginations, but the wild beauty of this world is unbeatable for giving a little peace of mind. To ensure a future for this great natural heritage, the National Wildlife Federation, during Wildlife Week, March 16-22, is urging us all to "Provide Habitat — Places Where Wildlife Live."

Sportsmen Speak...

LEGISLATION

I have only been a resident of Georgia about eight months, but I and my family (my wife Ann, and 15 year old son) like it very much. I take the **Game and Fish** magazine and I think it is one of the finest sports magazines on the market.

I am particularly impressed with the five bills for the General Assembly. I am in complete agreement that they are all long "over due," and of utmost importance for all Georgians, regardless of whether or not they hunt or fish.

All the bills, especially the anti-water pollution bill will eventually have to be passed for everyone's well being. Not just the wildlife or sportsmen.

Donald L. Weatherford
Marietta, Georgia 30060

EX-CRACKER

Just finished reading your article "January Jackpot" of fishing on Lake Seminole. It was nothing short of being great as usual with your articles. You wouldn't realize how much good a transplanted Cracker gets from the **Game & Fish** Magazine. I always read it from cover to cover; keep up the good work.

Wayne Abbey
Slidell, Louisiana

POLLUTION

I have read your story in the Jan. issue of **Game & Fish** on water pollution. Hope something can be done about it.

I have a lot at Lake Lanier, on Balus Creek. Four or five years ago, there was always good fishing in this area. Now there is something (I have been told it was dye) being put in this creek from Chicopee Mills. Sometimes the odor is so bad, it will take your breath. The fishing is nothing now and has not been in three years. Some days the water is black as tar, next day green or red.

I think a place, as large as Chicopee, should be made to do something about it.

Sure hope Director Bagby can do something about water pollution.

Thank you for a fine story, and also a fine magazine.

E. N. Holcomb
Atlanta, Ga.

COHUTTA

I enjoyed your recent article on the closing of the Cohuttas. I'm glad that is finally getting done. My brother-in-law and I hunted there last fall and saw nothing but one fresh deer track. It was a great disappointment to us since my father-in-law remembered, in his younger days, that it was a place of abundant turkey and deer.

I also had the experience, earlier, of seeing a doe dogged and shot out of season while I was trout fishing in those mountains. My partner and I took down the name of the owner from the collar and turned the owner in to the commission. I also knew of a deer being jack lighted and shot just below our camp on Jacks River on the night before the season opened.

I am glad that mess is going to be set right, and that we are going to have good hunting there, even if we have to wait five years to have it.

I wish Buford Withrow all the luck in the world.

Wilson Hall
Rome, Ga.

HUMANE?

In your 1969 January issue, in your Sportsmen Speak; a Defender of Wildlife was talking about the bobcats and deer at the Jasper County Deer Festival being cramped into small cages. Then he talked about putting mounted specimens in the cages. If the man would have thought about what he said, I'm sure he would have realized that you have to kill these animals before you can stuff them. I believe if more people thought about what they say, there would be more praising than criticising of your magazine.

Stan Montgomery
Reynolds, Georgia

PRAISE

I recently stumbled on your magazine, and found it to be interesting and much informative.

Am looking forward to your magazine, and hope your year is good.

Nevin D. Woodward
Dunwoody, Georgia

DEDICATION

I have thoroughly enjoyed reading your very informative and educational magazine.

It is nice to know the State of Georgia has some dedicated people in the conservation program who wish to save and rebuild our natural resources so that future generations will be able to enjoy the sport of hunting and fishing.

I wish to thank you for a fine magazine and renew my subscription so I may keep current with all the latest developments in the field of conservation.

Sincerely,
M. Sgt. Joe A. Fields
1883rd Comm. Sq. Box 82
APO San Francisco,
Calif. 96368

EXTRA COPIES

My subscription to **Game and Fish** Magazine is paid up through 1969. But the January issue is so interesting and beautiful, I am asking—will you please send me three more copies for January?

Enclosed find $1 to cover cost.

These three will be sent by me to out

SPORTSMAN SPEAKS—*continued*

of state friends—New Orleans, La., Detroit, Mich., and Cincinnati, Ohio.

I often do this—sending my copy, but it just happens this January copy, I want.

Thank you very much for this favor. It is appreciated. (Liberty County, Southeastern Coast of Georgia, Colonel's Island, Hinesville is the County seat—my home faces the North Newport River.)

Elizabeth R. Kelly
McIntosh, Ga.

THANKS

Thank you very much for the Winchester Rifle that you and the Georgia Sportsman Federation gave me. This is the nicest prize that has ever been awarded to me, and is one in which I take extreme pride.

I would like to thank men like you who join together to make it possible for those sportsmen to have the opportunities to hunt and fish in Georgia. The results of your efforts are being seen by sportsmen all over the state every year.

Thank you again for my rifle and rest assured that I will use it in the best interest of all Georgia Sportsmen.

Yours very truly,
Barry Hancock
Thomaston, Ga.

Mr. Hancock killed the 320 pound buck that was the heaviest deer killed in Georgia during the 1967 season.

EDITORIAL—*continued*

registration of ammunition and asked members of Georgia's congressional delegation to press for the repeal of the requirements for it in the recently passed Federal Firearms Act. The Federation urged other concerned Georgia sportsmen to follow suit in contacting their own U.S. district congressman and the two U.S. senators, Richard Russell and Herman Talmadge.

The letters should be personally written, and addressed to the appropriate individual at either the House Office Building or Senate Office Building, Washington, D.C.

While other portions of the new Act probably will do little good in halting crime either, the ban on mail order sales of guns and ammunition and federal minimum age requirements are not as obnoxious as the ammunition registration requirement. Sportsmen are willing to abide by those requirements, but the registration of ammunition sales should be repealed before the next hunting season. —J.M.

Sportsman's Calendar

SEASONS OPENING THIS MONTH

TURKEY

Season—March 24, 1969 through March 29, 1969 on the Bullard Creek Wildlife Management Area only. Clark Hill Wildlife Management Area March 31-April 5, 1969.
Bag Limit—One (1) turkey gobbler.

Turkey: March 15-April 12, 1969 in Ben Hill, Coffee, Charlton, Dodge, Pierce, Stuart, Telfair, and Wilcox counties. Only that portion of Church and Echols counties lying East of U.S. 441 and South of Ga. 94. Bag limit one (1) turkey gobbler.

Turkey: March 24-April 16, 1969 in Camden, Chattahoochee, Columbia, Lincoln, Marion, McDuffie, Muscogee, Talbot, Warren and Wilkes counties. Bag limit one (1) turkey gobbler.

SEASONS OPENING NEXT MONTH

TURKEY

Season—April 14, 1969 through April 19, 1969 on Blue Ridge, Chattahoochee, Johns Mountain, and Warwoman Wildlife Management Areas only.
Bag Limit—One (1) turkey gobbler.

Season—April 19, 1969 through May 3, 1969 in Banks, Chattooga, Dawson, Fannin, Floyd, Franklin, Gilmer, Gordon, Habersham, Murray, Rabun, Stephens, Towns, Union, Walker, White, and Whitfield Counties.
Bag Limit— One (1) turkey gobbler.

TROUT

Open Stream Season — April 5, 1969 through October 4, 1969.
Creel Limit—Eight (8) trout of all species per day. Possession limit—8.

(Management Area Streams—Open on scheduled days, May 3-Sept. 1, 1969).

TIDE TABLE

MAR.-APR. 1969

GEORGIA COASTAL WATERS

HOW TO USE THESE TABLES

The calculations are for the outer bar. Find the reading for the desired tide. In the table below find the number of minutes to add to correct for the place you are going to fish or swim. The outer bar calculation, plus this correction, gives the correct reading for the point desired.

Adjust For Daylight Saving Time By Adding One Hour

CORRECTION TABLE

The times given are for Savannah River entrance (Tybee).

	Hrs.	Min.
Savannah High	0	44
Savannah (Low)	*	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabaw Sound	0	05
Vernon View	0	35
Coffee Bluff	0	55
Ogeechee River Bridge	3	50
St. Catherine Sound	0	25
Sapelo Sound	0	00
Brunswick Bar	0	00
St. Simon Pier	0	25
Frederica Bridge	0	50
McKay Bridge	0	50
Brunswick East River	0	50
Turtle River Bridge	0	55
Turtle River, Crispen Is.	1	10
Humpback Bridge	1	00
Jekyll Point	0	30
Jointer Island		55
Hampton River Village Creek Ent.	0	20
Village Fishing Camp	0	45
Taylor Fishing Camp	1	00
Altamaha Fishing Park, Everett, Ga.	4	00
Two-Way Fishing Camp, S. Altamaha	2	00

	Full Moon	Last Quarter	New Moon	First Quarter
MAR.	4	11	18	26
APR.	2	9	16	24

MARCH, 1969

Day	A.M.	HIGH WATER A.M. HT.	HIGH WATER P.M.	LOW WATER HT.	LOW WATER P.M.
1. Sat.	6:06	6.6	6:34	5.9	12:34
2. Sun.	6:48	6.8	7:06	6.3	12:36	1:06
3. Mon.	7:24	7.0	7:42	6.6	1:18	1:42
4. Tues.	8:00	7.1	8:18	6.9	2:00	2:24
5. Wed.	8:36	7.1	8:54	7.1	2:42	3:00
6. Thurs.	9:12	7.0	9:36	7.2	3:24	3:36
7. Fri.	9:54	6.8	10:18	7.2	4:06	4:12
8. Sat.	10:36	6.5	11:06	7.1	4:48	4:54
9. Sun.	11:24	6.2			5:42	5:48
10. Mon.	12:06	6.9	12:24	5.9	6:42	6:48
11. Tues.	1:12	6.7	1:30	5.7	7:54	8:00
12. Wed.	2:24	6.6	2:42	5.6	9:06	9:18
13. Thurs.	3:42	6.7	4:06	5.9	10:12	10:24
14. Fri.	5:00	7.0	5:18	6.4	11:12	11:30
15. Sat.	6:00	7.3	6:18	7.0		12:06
16. Sun.	6:54	7.6	7:06	7.4	12:24	12:54
17. Mon.	7:36	7.7	7:48	7.7	1:18	1:42
18. Tues.	8:18	7.6	8:30	7.8	2:06	2:24
19. Wed.	8:54	7.3	9:06	7.8	2:48	3:06
20. Thurs.	9:30	6.9	9:48	7.5	3:30	3:42
21. Fri.	10:06	6.5	10:24	7.2	4:12	4:24
22. Sat.	10:48	6.1	11:06	6.9	4:54	5:00
23. Sun.	11:24	5.7	11:48	6.5	5:30	5:42
24. Mon.			12:12	5.4	6:18	6:30
25. Tues.	12:36	6.3	1:00	5.1	7:12	7:30
26. Wed.	1:30	6.1	2:00	5.0	8:18	8:30
27. Thurs.	2:30	6.0	3:06	5.1	9:18	9:36
28. Fri.	3:36	6.0	4:12	5.4	10:12	10:30
29. Sat.	4:36	6.2	5:06	5.9	11:00	11:18
30. Sun.	5:24	6.5	5:54	6.4	11:42	
31. Mon.	6:12	6.8	6:36	6.9	12:06	12:24

APRIL, 1969

Day	A.M.	HIGH WATER HT.	HIGH WATER P.M.	HIGH WATER HT.	LOW WATER A.M.	LOW WATER P.M.
1. Tues.	6:54	7.0	7:12	7.4	12:54	1:06
2. Wed.	7:30	7.2	7:54	7.7	1:36	1:48
3. Thurs.	8:06	7.2	8:30	7.9	2:18	2:24
4. Fri.	8:48	7.1	9:12	7.9	3:06	3:06
5. Sat.	9:30	6.8	10:00	7.8	3:48	3:48
6. Sun.	10:18	6.5	10:54	7.5	4:36	4:36
7. Mon.	11:12	6.2	11:54	7.2	5:30	5:30
8. Tues.			12:18	5.9	6:30	6:36
9. Wed.	1:06	6.9	1:30	5.8	7:42	7:54
10. Thurs.	2:18	6.7	2:42	5.9	8:54	9:12
11. Fri.	3:36	6.7	4:00	6.3	9:54	10:18
12. Sat.	4:42	6.9	5:06	6.8	10:54	11:18
13. Sun.	5:42	7.1	6:00	7.4	11:42	
14. Mon.	6:30	7.3	6:42	7.8	12:06	12:30
15. Tues.	7:12	7.3	7:24	8.0	1:00	1:12
16. Wed.	7:48	7.1	8:06	8.0	1:42	1:54
17. Thurs.	8:24	6.9	8:36	7.9	2:24	2:36
18. Fri.	9:00	6.6	9:12	7.7	3:06	3:12
19. Sat.	9:36	6.2	9:48	7.4	3:42	3:48
20. Sun.	10:06	5.9	10:30	7.0	4:24	4:24
21. Mon.	10:48	5.6	11:12	6.7	5:00	5:06
22. Tues.	11:36	5.4			5:48	5:54
23. Wed.	12:00	6.4	12:24	5.2	6:36	6:48
24. Thurs.	12:48	6.2	1:24	5.2	7:30	7:54
25. Fri.	1:42	6.1	2:24	5.4	8:30	8:54
26. Sat.	2:42	6.1	3:30	5.8	9:30	9:54
27. Sun.	3:42	6.2	4:24	6.3	10:18	10:42
28. Mon.	4:42	6.4	5:12	6.8	11:00	11:36
29. Tues.	5:30	6.7	6:00	7.4	11:48	
30. Wed.	6:18	6.9	6:42	7.9	12:24	12:30

To report violations or if you need assistance in the Coastal Area—Call—State Game & Fish Commission, Brunswick, Georgia, P. O. Box 1097, Phone 265-1552, Savannah 233-2383, Richmond Hill 756-3679.

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LAUGH (Before it's too late)

It's a discouraging time for conservationists in Georgia.

It's a close race between agencies of our own government, private industry, and individuals themselves to see who can ruin our state the fastest.

Sure, most people don't realize what they are doing. Even worse, some of them do, but they just don't care. Especially if they can make themselves a fortune by putting personal gain over public interest.

We won't argue that many governmental or industrial or private assaults on the environment we are living in may be justifiable in the public interest, at least right now. But when the long range view is considered, we may well be killing the goose that laid the golden egg by mining the only coast we will ever have, filling in seafood and recreation producting marshes to build new pulp mills or factories to further pollute the most fertile estuarine area in the world. Maybe we won't miss tourist dollars that would have been spent to see an area that wasn't all one honkytonk or factory after another, while enjoying the unspoiled beauties of nature ourselves.

Maybe it's a fine thing for a federal agency to spend millions of dollars of our tax money all over Georgia making permanent fishless, muddy ditches out of some of Georgia's once beautiful streams, while draining thousands of acres of wild swampland that once served as a home and refuge for thousands of ducks, squirrels, rabbits, deer, turkey, raccoon, and bear.

Maybe it's a good thing another federal agency has a plan for a big dam on every stream that's too large for a small dam or a ditching job. Maybe we don't need any beautiful flowing rivers, water rushing over the rocks of a shoal in the glistening sunlight, bordered by lush green forests, and nourishing all the wonderfully varied species of fish that disappear when the water stops flowing.

And maybe we need all those picnic tables and camp sites that federal and state agencies are putting up or planning at every once secluded beauty spot that once was reserved for the hardy hiker, the fisherman, the hunter, the deer, or the wild trout.

Maybe it's important that we have those "scenic roads" that state and federal agencies are building through the wilderness at every turn, so that people won't have to get out of their car to see nature at 60 miles per hour, or at least what's left of it after the construction work is done, the ugly cuts gouged out of the mountains, the eroding fills adding their muddy poison to the nearest stream.

Sure, we need all of those new subdivisions, apartments, and shopping centers where we used to raise corn and cattle, and shoot doves and quail. More people need a place to live, and a place to work. Who would argue that point?

But will our children, and their children, like the world they are living in better with more people crowded into the same area, but with more houses, stores, smoky factories, strip mines, highways, streets, automobile exhaust, parking lots, picnic areas, camp grounds, race tracks, ball fields, drainage ditches, little lakes, and big lakes, all of them polluted with sewage, industrial wastes, silt, pesticides, and radiation?

Laugh at the idea of conserving our natural resources, or at the enjoyment that we get out of our short existence on earth. Keep on laughing while you look at the way man has ruined his own habitat in Europe, how he is doing it now in New York, New Jersey, Massachusetts, Ohio, Indiana, and Illinois, to name only a few of our own states.

Laugh while you see the same thing happen to your state.

But in the meantime, laugh with the men who have dollar signs for eyeballs. At least they know why they are laughing. It's only our world they're ruining.

J. M.

ON THE COVER: A north Georgia rainbow trout, fresh from the water. Thousands of Georgia trout fishermen will be taking their first closeup look at a rainbow in six months during April. Many of them will be caught on the durable Mepps spinner, most popular lure among mountain trout fishermen in Georgia. This year's trout season runs from April 5 to October 4. Color photo by Ted Borg.

ON THE BACK COVER: The beautiful and mysterious Okefenokee Swamp, "Land of the Trembling Earth," and Georgia's most famous fishing spot. April is one of the best months for swamp fishing. Bream and chain pickerel are waiting for the angler who's looking for something different. Color photo by J. Hall.

PHOTO CREDITS: Ted Borg 1, 5, 9, 10, 11; Dan Keever 2; Marvin Tye 6, 7, 8.

WHOOPEE! WHITE BASS

By Jim Morrison

The author and a healthy string of Allatoona white bass caught in the Etowah River.

If there is a fish that makes you feel like an expert fisherman, it's the white bass.

Maybe that's not saying much about your ability or the intelligence of a white bass, one or the other, but if the author can catch his limit of them, anyone can!

Never heard of white bass? Maybe you have, but you haven't ever caught one? If not, then you've really been missing a treat.

What's so great about the white bass? Plenty . . . in fact, he's got just about all the arguments for a popular game fish in his favor. For most fishermen, the primary requisite for a game fish is either that he is good to eat or that he puts up a good fight. The white bass meets both requirements, in whatever order you prefer.

In fact, he's so accommodating to the amateur fisherman that he even securely hooks himself, in case you can't remember a little detail like setting the hook at the crucial moment. And as long as you keep the line tight, he won't throw the hook at the last moment, as some of his notorious largemouth brothers do. If you're careful where you put your hand, you can even land him without a net. Of course, like most fish, he still reserves his piscatorial constitutional right to fin you in the fingers at the last minute and escape!

If you are a purist who insists on using only artifical lures, you'll like white bass just as well as a live bait fisherman. The white bass likes them both.

How about size? Well, white bass aren't whoppers, compared to some of their cousins, but the average of from half a pound to two pounds or even more usually satisfies most Izaak Waltons. White bass pull so hard, you never know how big they are until you see them. Size doesn't seem to have much to do with their fight.

But the greatest thing about the white bass is the way he swells your ego up when you go around the neighborhood waking up your friends to show them what a big string you dug in!

Of course, by the time you finish cleaning your limit of 30 by midnight, you wonder why you were such a pig. But don't worry, the feeling won't last until your next white bass fishing trip,

Top: Landing a fighting white bass in swift water is a real fishing treat. The fish pulls twice as hard by turning sideways against the current.

Bottom: In areas that are too rocky, shallow, or swift for a small boat or that can't be reached from shore, wading is the answer when white bass run the rivers above lakes to spawn, as in the Oconee River above Lake Sinclair. A canvas seat built into an innertube cover is a good safety aid.

when you'll do it all over again, if you can!

Where do you go to catch white bass? (Where there are some, naturally!) Puns aside, almost anyone who lives in Georgia is just a short drive away from good white bass fishing in one of 14 major reservoirs. In fact, white bass are plentiful in all of Georgia's big lakes, except Lake Jackson and the cold northern lakes like Blue Ridge. To a lesser extent, they are found in the rivers above and below the reservoirs, but the white bass is more of a lake fish than a stream dweller. He usually doesn't thrive in small lakes or ponds.

The major exception to the river rule, and it is only a partial exception, is during the spring spawning season. Usually for several days in March, April, or early May, depending on the weather, the spawning season causes males to move in to the major tributary streams above their lake home by the thousands, congregating below the first major shoal, dam, or other obstruction in the stream.

Within a few days, if river water temperatures move up, the females join the males for the brief spawning period, before retreating back into the lake. Not all of the fish spawn at once, so if weather conditions are right, several waves or schools arrive at the river at different times.

Many of the white bass never enter the tributary streams at all, but spawn instead in the lake itself, usually on shallow sand or gravel bars, frequently in casting distance of shores.

During this spawning period, it's not unusual for dozens, or even hundreds, of fishermen to catch thousands of white bass in a few days time. It has to be seen to be believed.

Unfortunately, catching the time of greatest concentration of fish in the river isn't easy, unless you can check on the fishing every day, or get a report from someone else who can. White bass fishermen have been known to forget their best friends' names on hearing that white bass are running in the river! They might not even remember them until the time comes to pass on the old adage, "Boy, you should have been here last week!"

What makes hitting the run on the nose so difficult without a good reliable scout is that the run is directly dependent on the temperature of the water and the amount of mud in the water. Males move into the river at about 55 degrees, females at 62. A sudden drop in the temperature or an April shower can halt fishing success for several days, maybe weeks.

The hardest trick is trying to hit the first good run of fish, which could start any time from late February through June, depending on the location, weath-

er, etc. Anglers are especially anxious to get there "furstest wiff thu' mostest," because the biggest white bass generally spawn the earliest, while the spawning fish get smaller and smaller and less numerous as the spawning period goes on. At the same time, more and more fishermen arrive on the scene as the word leaks out to assorted relatives, bosom buddies, neighbors, and fellows that you owe a good turn.

In fact, there really isn't much point in fishing for white bass on the spawning run on weekends, unless you like company better than catching fish. Maybe just as many fish are caught each day on Saturday and Sunday as the rest of the days of the week, but more fishermen are dividing up the catch. Or maybe so many of them zeroing in on the target area at one time in motorboats, waders, etc., spooks the fish so badly that they go on the lam until Monday, or get an attack of weekend lockjaw. So if you can, take a day off during the week when you get the word. But don't wait — he who hesitates on the white bass run is left saying "wait until next year."

What about lures? Well, it doesn't really seem to make much difference, on the run. Small leadheaded, hair jigs or bucktails like the Doll-Fly or Potgut in yellow or white are popular, along with small silver or flashing spoons like Little Cleo, and smaller plugs such as the green-backed Thinfin or Rapala.

Live bait? The small minnow is the best. In fact, minnows produce white bass when lures fail in badly overfished or muddy water. They also seem to work better fishing deep at the head of the lake for large females who are rarely caught in the shallow river area.

During the spawning run in the rivers, there are a few tips about where to cast, and how to work your lure. But like most rules, they are made to be broken, and spawning white bass sometimes break them all.

Generally speaking, you're more likely to catch white bass within a few feet of the river bank, sometimes only within a few inches and nowhere else. The fish seem to prefer resting there in the slower current, rather than fighting the stronger current in the middle of the stream. Fishing is best behind some obstacle or cover that breaks or slows the current, like a rock or a log, or a fallen tree top. A place where the currents swirls backwards behind an outcropping that runs out into the river is a prime congregating spot. But to be on the safe side, try casting across even the swiftest current, and downstream or up.

Usually, it isn't necessary to retrieve very fast, although sometimes varying the speed may help. Slow retrieving with occasional short jerks usually works well, but if white bass are really biting, you can just make a steady slow retrieve without any action at all, even using a jig, perhaps bumping the bottom. One important thing to remember: don't plan on getting by with two or three lures. You'll need two or three dozen, if you expect to catch any fish. White bass seem to prefer hanging around rocks, logs, roots, tree limbs, etc., that eat up your lures. You can't buy them on the river, and other fishermen won't be generous with their's!

Because of thick vegetation or steep, muddy banks, it's often best to fish the rivers from a boat. If the water is shallow enough, warm enough, and the current not too swift, wading is a good way to reach fish you'd miss in a boat, or might tear your prop up trying to reach. (Take extra shear pins, and a paddle with your anchor). The safest way to wade is using an innertube with a seat built into the middle of a canvas cover, allowing you to float over hidden holes in stained water deeper than the top of a pair of chestwaders. These usually have a pair of suspenders for picking up the tube when walking over shallow sand bars or rocks. As long as your feet reach the bottom, you have complete maneuverability. If they don't, you'll just have to go with the current. (And it's a long walk upstream, dragging your tube, rod and fish back through the jungle!)

For the even more hardy, fishing from the bank is the way to limit out when other fishermen are going home empty handed. The "catch" is that you frequently won't be able to do it by staying in the same spot with all the other bank fishermen in a nice level, grassy open place next to your car and your ice chest. The real expert takes his boat to a good area that can't be easily reached from an automobile, (or by lazier fishermen) then ties up to the shore and begins walking the bank and fishing within a few feet of the bank.

Often, you don't even have to let out more line than the length of your rod. Simply "jigging" or bouncing your jig up and down in a foot or two of water within inches of the bank or just beside a fallen tree top's branches will bring a mad white bass charging out to snatch your lure! Sometimes you can fill your stringer in one such spot, if the fish keep striking every two or three casts. If not, then move on to another spot, since you may have caught all the fish in that particular spot, or spooked the rest. It's important to sneak up on each likely spot as quietly as possible.

If this sounds like a rough way to fish, you're right! Count on skinning your head on tree branches or briars several times, getting your feet muddy, falling in once or twice, snagging your lure, rod, or reel several million times in bushes, getting mosquito bit, threatened by a few snakes, and most important, dragging a stringer of 40 or 50 pounds of white bass back to the boat on your aching wrist! And unless you reach your limit first or you're afraid of the dark, don't leave early. White bass characteristically go on a striking spree at the last light of day, hitting anything in sight, cast after cast. The same thing happens at the first light of day, if you're up that early. Results drop off through the middle of the day, then increase in the evening toward dark. Significantly, white bass bite better on cloudy days in the middle of the day than sunny ones.

By now, if you've faced the prospect of staying up all night cleaning the limit of white bass that you and two or three generous but lazy companions caught, you've learned not to waste time gutting and scaling white bass. Like his largemouth namesake, a white bass can be quickly and easily fileted without gutting or scaling or skinning. To do it, just take a long, slender bladed knife, cut behind the gill to the backbone, then follow the backbone to the tail. Without cutting off the skin at the tail, lay the flap of meat and skin you have just cut out flat, then run your knife back to the head of the flap between the meat and the skin. If you wish, you can then trim out the rib bones you have cut off and discard them with the poor belly meat, leaving a perfect boneless filet! Turn the fish over and repeat the process, then throw away the intestines, head, and skin, all in one piece

Fileting white bass not only saves time and freezer space, but also seems to improve the flavor of the fish when cooked by removing the slight oily taste of the skin. The filets can be fried, but baking brings out their natural flavor the best, producing a delicious meal. Like all fish, white bass is best fresh, but the flavor can be held very well by freezing in water. Months after the white bass run is over, you'll wish you had caught more

But so much for the fabulous spring spawning fishing. What about the rest of the year? As you might suspect, the "stripers" as some fishermen inaccurately call them, spread back out into the lake, where they prefer large open water areas. Since white bass mainly feed on schools of small threadfin shad and other open water forage fish, they are found in the same locations at the same time as their prey. Generally, this means that in the middle of the day, they submerge to the lower levels of the open water in the lake, away from the light of day. Early in the morning, or late in the afternoon, they can sometimes be seen feeding in voracious schools on shad at the water's surface.

During this schooling activity, which lasts from the end of the spawning run

Georgia's White Bass Hot Spots

until cold weather, shad can be caught "jump" fishing, which simply means sitting in a motorboat watching for the schools to break the surface. Naturally, this works best on a calm day. At the first sight of feeding activity, you race your boat over to the edge of the school and cast into the middle of it. If you are lucky, you may be able to hook and land several fish before the schools sounds. Then the waiting and watching begins again.

If you don't like just sitting around, you can try trolling, using a small wobbling spoon or a spinner lure such as a Shyster. This is an especially good technique for locating the larger spawning white bass that seem to stay back in the stiller impounded waters at the head of the lake, instead of bucking the swift river current like the smaller fish do. When you get a strike trolling, you attempt to find the same spot again while casting, usually close to the bank or over a shallow bar.

If you're after a trophy, it's worth noting that the largest white bass are always caught in the winter, usually December, January, February, or March. For instance, the two four-pound, 14-ounce fish that share the state record honor were both caught in Lake Lanier, one on January 11, 1966, and the other on March 26, 1968. The winner of the previous year's Georgia fishing contest was caught in Lake Hartwell on February 6, 1967.

Significantly, 10 out of 12 entries in the contest over three pounds in size during the last two years were caught in Lake Lanier. Wildlife rangers and fishermen say that hundreds of three pound white bass were caught in Lanier and in the Chattahoochee River above the lake the past two years. Of course, more people fish in Lanier than any other Georgia lake.

Where will the best white bass fishing be this year? Next year? Well, crystal balls sometimes get muddy water in them, but fish biologists of the Game and Fish Commission expect Clark Hill from the standpoint of both numbers and size to be one of the best lakes in the State for white bass in 1969, with a good year crop of fish up to three pounds in size. Lake Sinclair has a good year class of younger fish averaging a half a pound in size, which should provide much bigger fish next year and the year after. Results at Lake Lanier should continue to be good, with bigger than average white bass the rule. Allatoona white bass should hold up in size and numbers to last year.

A puzzling aspect of white bass fishing is that it usually flourishes for several years in a lake, then seems to drop off sharply for a couple of years before peaking again. This cyclic population tendency is common to several other types of fish which spawn only once a year, including crappie, but is most pronounced with white bass. Apparently in some years, spawning success is much greater, perhaps due to favorable water temperatures, lake currents, food supply, or some other unknown factor. Apparently, conditions must be almost perfect, since a good spawning year seems to occur only about once every three or four years in most lakes. The eggs are fertilized by one or more males gathered around the female, then settle to the bottom on gravel or debris where they remain attached for two or three days before hatching. During this time, the water temperature should remain at between 58 to 64 degrees for the best hatching success. As a result, millions of small white bass fry enter the lake. (One female can produce up to one million eggs.)

Want more specific information on where to fish for white bass in Georgia? There are only two places in northwest Georgia: Lake Weiss, mainly in Alabama, with a good spawning run into Georgia up Big Cedar Creek and up the Coosa River to the old Lock and Dam just below Rome; and Lake Allatoona, with good spawning runs up Stamp Creek and the Etowah River to Canton.

There are three locations in Northeast Georgia. There is a fair population in Lake Hartwell with a spawning run up the Tugaloo River to Yonah Dam, and a fair spawning run out of Lake Burton into the Tallulah River. The best white bass fishing in northeast Georgia almost year round is Lake Lanier, with good spring spawning runs up both the Chestatee and the Chattahoochee Rivers. For some reason, the larger fish seem to be caught in the Chattahoochee.

Middle Georgia is the prime white bass area, from the South Carolina line to Alabama. On the east, Clark Hill has always been a good white bass lake since it was stocked by the Game and Fish Commission. There is an excellent spawning run in the Broad River at Anthony Shoals, and in Little River, where a majority of the spawning seems to be on shallow bars in the impounded water itself. Few fish are caught in the colder Savannah River discharge from upstream Lake Hartwell. Some white bass are also caught south of Augusta below the Savannah Bluff Lock and Dam, but not in great numbers since there is no downstream reservoir.

Farther west, Lake Sinclair is a good white bass lake, although fishing has been in a slump the past two seasons. There is normally an excellent spawning run out of Sinclair up the Oconee River into Long Shoals above the Georgia 16 bridge between Eatonton and Sparta. A good run also occurs on the Little River and sometimes in smaller creeks.

In spite of repeated stocking of hundreds of adult fish since the 1950's, there are no white bass in Lake Jackson, apparently because of illegal netting of game fish in Lake Jackson and the Alcovy River. As a result, the Game and Fish Commission has banned all commercial nets in Jackson in an effort to successfully introduce white bass there. This year, the Commission also banned all commercial netting in all of Georgia's streams including the Alcovy, except for commercial shad netting in coastal rivers.

Since it is three times as fertile as most Georgia reservoirs, Jackson should be an outstanding white bass lake in the future, unless threatening upstream developments ruin the Alcovy as a spawning stream.

Jackson only has three main tributaries: the South River, Yellow River, and Alcovy River. Heavy pollution from Atlanta eliminates the South River as a spawning stream. The Yellow River, as its name implies, is heavily silted, reducing its potential. Only the relatively clear Alcovy remains. But its future has been clouded by proposals by the U.S. Soil Conservation Service to dredge out and channel 80 miles of the Alcovy and two of its tributaries, Flat Creek and Cornish Creek, along with drainage of 4,000 acres of swamps along the river.

Channelization is usually accomplished with heavy machinery, primarily bulldozers and draglines (steam shovels to some). The bulldozers go down both sides of the river, clearing out a path for the draglines by knocking down all the trees on the riverbank for a distance of up to 90 feet from the bank, supposedly to keep any

trees from falling into the river in the future. Of course, removing the stabilizing influence of the tree roots on holding the river bank results in a lot of bank erosion into the stream. Although adjacent landowners are encouraged to plant the bulldozed areas to protective grasses or wild life foods, grasses can't compete with established trees for holding a stream bank. Even worse, many landowners never get around to doing the promised seeding.

Even more damage occurs when the draglines work their way along the river banks, scooping mud and logs out of the river bed to deepen and straighten it. While this does allow flood waters to escape faster in a larger channel, the primary reason for it seems to be lowering the river bed so that adjacent swampy areas (important to wildlife) can be drained off into it with side ditches or culverts. This land is then available for planting to add to agricultural surpluses. Both the digging in the stream and the drainage of more water off the side, often through new accidental erosion gullies, results in a great deal more mud in the stream water. The construction of flood control dams upstream usually adds to the problem, especially if it is not carefully done.

The ironic thing about watershed projects that include destructive channelization and drainage is that their proponents claim the project is intended to eventually reduce siltation in streams, among other things. But the many critics of the technique say it often has produced the opposite result, especially so during the construction years and several years afterward, often permanently.

Interestingly, in a new large Soil Conservation Service watershed lake near Macon where there was no upstream channelization, Lake Tobosefkee, white bass succeeded quickly after being stocked there by the State Game and Fish Commission. Fair catches are already being made there by anglers.

Farther west in middle Georgia is the first home of white bass in the State: lakes Bartletts Ferry, Goat Rock, and Oliver, all stocked by the Game and Fish Commission in the early 1950's. Brood stock for Georgia's other lakes were later captured from those lakes by Commission biologists. Thousands of white bass are caught each year in all three lakes, especially just below the dams on the heavy spring spawning runs in the lower two lakes, plus an upstream run in the Chattahoochee out of the upper lake of the chain, Bartletts Ferry.

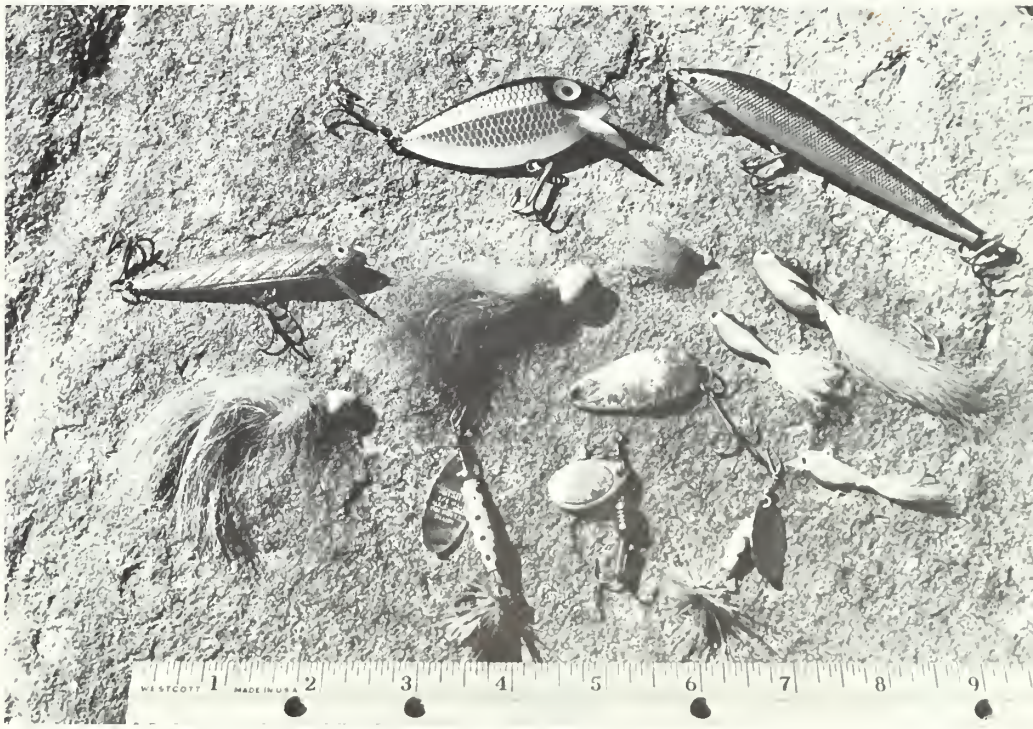
Just below Columbus, white bass have thrived in Georgia's newest large reservoir, Walter F. George (Lake Eufaula, Fort Gaines, or Chattahoochee, take your pick). There is a good spawning run up the 85-mile long lake to the Columbus city limits below the private Phenix Eagle Mill Dam on the Chattahoochee.

Downstream, white bass have a fair population in Lake Seminole, from which they make an annual spawning run up the Chattahoochee to the Walter F. George Lock and Dam, and up the Flint River to the Georgia Power Company's Lake Worth Dam, in the city limits of Albany.

There is a fair white bass population in Lake Worth itself, spawning in the Flint River, sometimes all the way up to the Blackshear Dam at Warwick. Blackshear has a good population of white bass in most years. Apparently, the bulk of the spawning there occurs in the relatively shallow lake itself, although some spawners are caught in Gum Creek, Cedar Creek, and the Flint River. Since white bass populations also tend to rise and fall with their main forage species, the threadfin shad, poorer fishing there last year coincided with a shortage of threadfins. This year may be a different story, at least for the shad, followed by better white bass fishing in years ahead, with the other variable of spawning success.

As you probably can deduct from comparing the lakes in the list, white bass thrive best in the middle Georgia lakes, where year round temperatures are more favorable for growth and reproduction. Results aren't quite as good in the warmer southeast Georgia reservoirs, or in the colder ones of extreme north Georgia. (There are no white bass to speak of in Blue Ridge, Seed, Tallulah, Tugaloo, or Yonah.) The unusual size, but not numbers, of white bass reached in Lake Lanier can be attributed to the two-story temperature level in the lake during the summer, allowing the white bass and other species to seek out the temperature level they like best for fastest growth and clearness of lake. Only in the coldest months of December, January, and February does their growth stop. Although white bass occur in most Northern waters, where they are natives of the Great Lakes and the Mississippi River drainage, they don't grow as fast or as large there as in their new Southern homes. (Can't beat that Southern food!)

Anyway, at this point, it's a sure thing that you won't have to take a vote among Georgia fishermen to know they're glad the white bass is here to stay!



The most popular white bass lures are small lead headed white or yellow jigs like the Doll-Fly or Potgut, small spoons like Little Cleo, spinners like the Shyster, and small plugs such as the Thinfin, Rapala, or Rebel.

LAKE SEMINOLE

CARPORee

Georgia's Newest Archery Spot

By Marvin Tye

■ Wayne Weaver waded slowly through the muddy water, his bow held ready for action. Suddenly he spotted the outline of a hefty carp swimming by almost at his feet. Wayne took careful aim and fired. As his shaft struck, the carp thrashed about violently. Wayne grabbed the line attached to the arrow and soon had the situation well under control.

This fish plus a stringerfull more taken during the one and one-half days of the first Seminole Carporee gave him a total weight of 124½ pounds of carp and first place in the contest. Did I say a day and a half? I'll have to modify that a bit. Actual fishing time was much less than that. Rain fell almost constantly. The contestants spent about half of their time drying their clothes or fleeing from the downpour. The rain roiled the water and made it difficult for the archers to spot carp beneath the surface. Despite these handicaps, the archers bagged a large number of carp and bowfin (mudfish) during the carporee. More than 1,000 pounds of rough fish were taken from the lake. Many more could have been bagged without damaging this fishing resource.

Winners of the contest were Wayne Weaver of Ocilla with 124½ pounds, first; Ralph Smith of Valdosta with 80 pounds, second; Bill Bradford of Ocilla with 52 pounds, third; Rodney Doss of Camilla with 52 pounds, fourth; and Frank Johnson of Valdosta with 48½ pounds, fifth. Only carp were scored in the contest. As Doss and Bradford had an identical amount of fish, third and fourth place were decided by a toss of a coin. Each of the winners received a handsome trophy.

The Seminole Carporee will be held April 12 through April 13 this year. All contestants must register at Jack Wingate's Lodge and enter the lake from his camp. Registration costs $4.00. This entitles the contestant to a barbecue dinner and a chance at one of five trophies to be presented to the archers who bag the most carp. First place will be awarded to the archer who bags the largest amount of carp, determined by weight. Second place will go to the bowfisherman who bags the second largest amount of carp. The same criteria will be used for determining winners of the other trophies.

Bowfishing is a sport that is growing in popularity in Georgia. The archer who hunts carp, gar, and bowfin in shallow water will usually find a lot of action. He may get dozens of shots in a morning or afternoon outing.

Due to refraction, the bending of light rays as they enter the water, fish appear to be nearer the surface. To hit a submerged target, the archer must aim beneath it. A target near the surface can be hit by aiming only slightly below it. A deeper target requires more allowance for refraction. The only way to learn how to hit underwater targets is by a lot of practice. Spawning carp schooling in the shallows are abundant and provide plenty of opportunity for

Far Left: Valdosta hunting and fishing outfitter Jack McKey draws a bead on a bowfin lurking in the shallows along the edge of Lake Seminole.

Left: The shot pays off with a seven pounder, which McKey promptly adds to his stringer.

Jack Wingate, the man behind the Lake Seminole Carporee, bagged this bowfin less than fifty yards from the spot where McKey scored. The bowfin is a living fossil that inhabited the earth when dinosaurs and other prehistoric creatures roamed Georgia.

Winners of the Carporee last year are from left: Wayne Weaver of Ocilla, Ralph Smith of Valdosta, Bill Bradford of Ocilla and Rodney Doss of Camilla. Frank Johnson of Valdosta, fifth place winner, was seeking more carp when this photo was made. This year's Lake Seminole Carporee will be April 12 and 13.

this practice. Carp spawn in April or May in most Georgia lakes and rivers.

Carp, gar, bowfin, and similar rough fish are the only fresh-water targets that may be legally fired upon by the bowfisherman. Game fish are strictly off limits. Any bowfisherman found with game fish in his possession is in violation of the law. For this reason, bowfishermen may not have conventional sportfishing tackle in their possession while fishing with archery gear. Archers may not shoot within 150 feet of anglers using rod and reel or pole and line, from any bridge, or from any public road. Arrows must be equipped with barbs or other devices to recover the fish and must be attached by a strong line or cord to the archer or to his bow. Legal hours for bowfishing are from sunup to sundown.

Rough fish are not generally prized as table fare and are usually thought of as a nuisance by the sport fisherman. By adding a bowfishing outfit to his equipment, the fisherman or the archer can enjoy a bonus of exciting sport from previously overlooked species.

The first item needed to start bowfishing is the bow. Many archers use their hunting bow. This provides familiarity with the weapon that can later prove beneficial during the fall hunting season. A 40-pound bow is just about ideal for this activity. It is light enough to use for an extended period without tiring, yet hefty enough to cast a heavy fishing arrow. The archer must be capable of using his own bow to shoot an arrow more than 100 yards.

Arrows for bowfishing are made of solid fiberglass shafts which are quite a bit heavier than arrows used for ordinary hunting or target practice. The additional weight enables the arrow to penetrate several feet of water and then impale a large carp. Feathers are not used on fishing arrows. Instead the arrows are fletched with plastic or rubber vanes. Feathers would soon be torn off the shaft in this rough and tumble sport.

These arrows feature barbed points that hold the fish after it is hit. When he has landed his catch, the archer can either reverse the barbs or remove them. This way, the fish may be taken from the shaft without having to untie the line after each catch.

A bowfishing reel is attached to the bow with tape or by clips made into the more expensive models. The reel is placed on the back of the bow, the side away from the archer, either above or below the handle. When an arrow is fired, the line peels off the reel like line from a spinning reel. Most archers use 100-pound test line. This line takes plenty of abuse from a hard-fighting carp, and also enables the archer to retrieve his shaft from several inches of mud when he misses a fish! The line is attached to the rear of the arrow through a small hole and helps to stabilize the shaft on its flight.

A pair of Polaroid glasses helps the bowfisherman to see fish and other submerged objects. Waders protect his feet and also keep out the cold water usually found in Georgia in the early spring. An arm guard and shooting glove or tab and your regular fishing license complete the list of items needed for bowfishing.

LUNCHTIME CRAPPIE

By John Culler

■ The cigar-shaped float nodded slightly twice, then began moving away, about an inch under the surface. Loy McNeal, my fishing partner who took time out from a busy schedule as Wildlife Ranger in Muscogee County, pointed the end of his fishing pole at the cork and began following it along. "Sock it to him," I said, unable to stand the suspense that had been building up since my last fishing trip six months ago.

"Wait until he gets it good — I hate to waste minnows," Loy said as he gave the pole a slight twitch, just enough to set the hook in the tender mouth of a Lake Walter F. George crappie. The fish made one strong run, then in typical crappie style allowed himself to be pulled almost to the boat before making another run, this time trying for a large stump near the back of the boat. Loy stopped him with a little more pressure, then brought the fish alongside and into the boat.

While he was stringing him up — along with the two he already had on the stringer — I had to admit he was

The author and his string of Walter F. George crappie, all caught on a light spinning rod using small minnows for bait. The crappie and bream limit in both Georgia and Alabama is 50.

doing something better than I was, because I hadn't had a nibble. "How deep you fishing?" I asked, trying to be casual. It didn't work. "About four feet," he laughed.

We were fishing in the upper end of the lake, near Florence Landing, about a 45-minute drive south from Columbus. I stopped by Florence Landing two weeks earlier to see how the fish were biting, and had seen enough to give me a good case of "fishing fever." Walter F. George has always been a good crappie lake, as well as offering outstanding bass fishing.

The crappie begin biting in February, with the best months perhaps March and April. There are few days in the spring when a hard-working fisherman can't catch his limit, and most fishermen catch their share of fish weighing over two pounds. Most are caught on minnows, fished from two to eight feet deep, and almost always around stumps, submerged treetops or bridge pilings.

We were about a five-minute boat ride from the landing down the old river channel, in the mouth of Grass Creek. We pulled up into a clump of dead trees, and tied both ends of the boat to keep the wind honest. After Loy boated his third fish, it was my turn. I caught three before he caught another, one a two-pound sneak-thief that almost pulled my spinning rod out of the boat. We caught about 10 more in as many minutes, then they quit biting as suddenly as they started. After a 15-minute wait, I started catching them again. "How deep you fishing?" Loy asked, and it was my turn to laugh.

I had been worried earlier because we got a late start, and didn't begin fishing until about 10:30, but it seemed to work out fine, because we caught most of our fish between 11 a.m. and 2 p.m., the warmest part of the day. Since neither Loy or I had ever fished that part of the lake before, we had to rely on John Barfield, who operates the Florence Marina, to tell us where the fish were.

"Just go up in any of the creeks along here and fish around the trees, and I don't think you will have any trouble finding the fish," John said. He knew what he was talking about, because he has operated the marina since it was built almost four years ago. While there are several launching ramps along the lake, the Florence Marina is the only marina on the Georgia side of the 48,000-acre lake. Many larger boats, including houseboats are kept at the marina, from which a boat can go to the Gulf of Mexico. John also rents first rate cabins by the day or week, and has boats, motors, bait and anything a fisherman or boater may need.

The first year or two after the lake was full it also had excellent bream fishing, but now the lake is so overpopulated, most of the bream caught are small. Leon Kirkland, Chief of Fisheries of the State Game and Fish Commission, says he doesn't ever expect the lake to be a really good bream lake, because middle Georgia lakes have an extended spawning season for bream but not a year-round growing season as do the lakes farther south.

"The bass in the lake prefer to eat the shad instead of the bream, and Walter F. George has a good shad population," Kirkland said. "The lake is also a good catfish lake, and catfish compete with bream for available food." However, help may be on the way, because Kirkland said the Game and Fish Commission plans to stock the lake with striped bass, "just as soon as they are available, probably in 1970."

A good population of striped bass should help the bream fishing, because stripers will prey heavily on the shad, hopefully forcing the bass to eat more bream. Kirkland said there was a possibility the stripers could spawn in the lake, and eliminate the need of a continual stocking program.

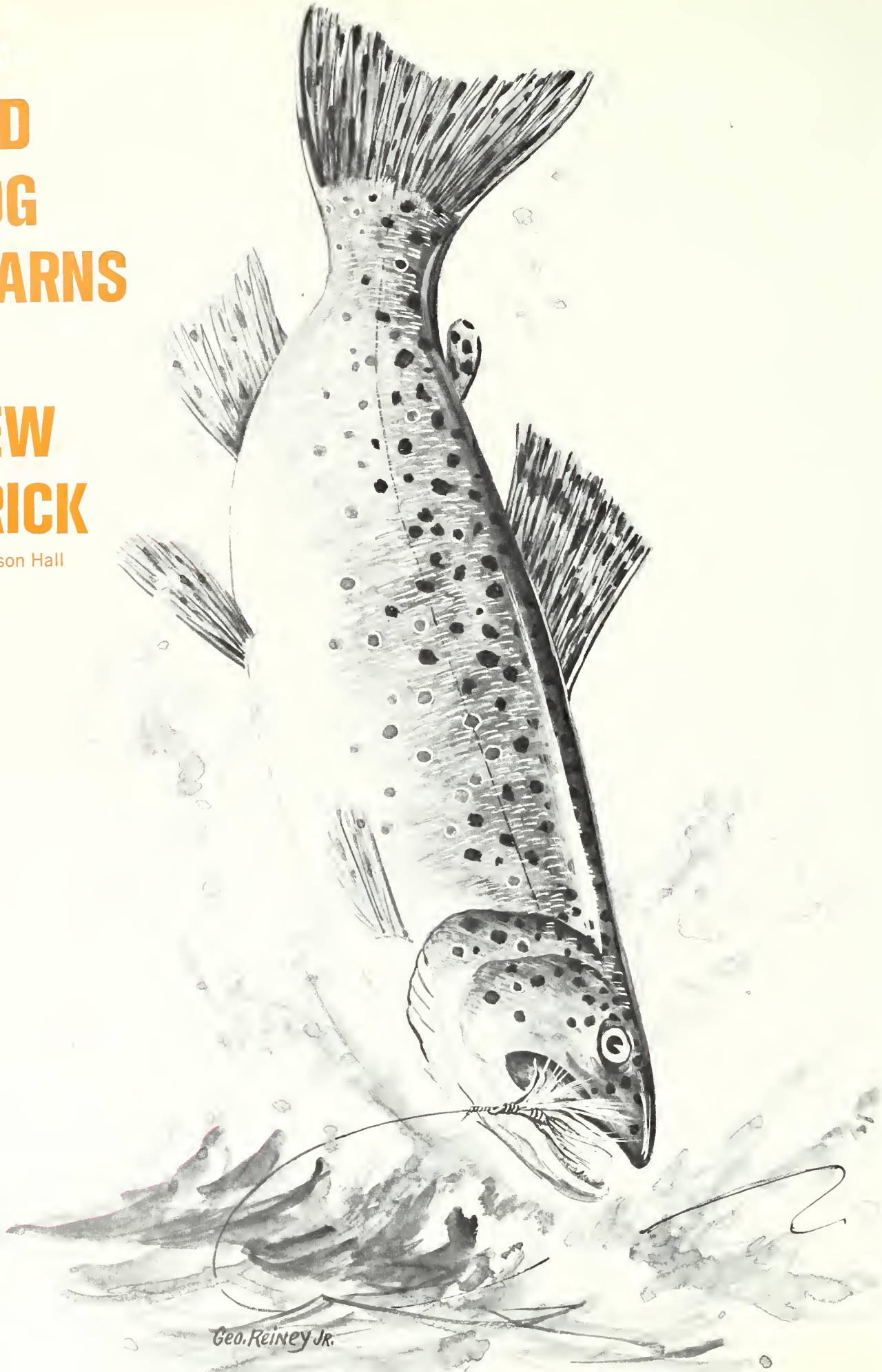
April has always been an excellent bass month on the big lake, and its 600 plus miles of shoreline are a bass fisherman's delight. A ranger estimated the average weight of spring bass caught there at four pounds, which is as big as they get in some lakes.

We shouldn't blame the early-season crappie for biting only in the warm part of the day, because that's when most of us would rather fish anyway. It's those sneaky ones that get my goat. Somehow or other they always seem to wait until a fellow is fixing up another pole or rod before they bite. This little trick has caused hooks to be stuck in fingers, tackle boxes to be turned over, coffee to be spilled, and $40 rods to be dropped overboard. But I've got them figured. I throw out a line, watch it a minute to be sure one doesn't hit it immediately, then act like I'm tying a hook on another rod. When he bites, I throw the hook over my shoulder and reel him in. It works — but after an hour or two you are ankle deep in hooks and you have to be careful how you move around in the boat!

Hello there! Adding another fish to his stringer, a Walter F. George fisherman proves again that crappie like to hang out in dead tree branches and stumps, as well as around bridge pilings and rock piles.

AN OLD DOG LEARNS A NEW TRICK

By Wilson Hall



When I came east from Alabama to Georgia, a distance of only seventy miles, I assumed that I was trading bass water for bass water, and that Georgia, being much like Alabama, was not going to offer me anything new in the way of fishing. But that was where I was wrong, and wherein I underwent a conversion.

It all began one day in the faculty lounge of Shorter College at Rome, where I teach English. I encountered the Dean of Students, Bill Leach, whom I had met several times, but whom I had not talked to for any length of time. There was something about him that looked outdoorsy, and at first I thought it was because his study area was biology, and that this was what got him outside occasionally. But on a hunch, I asked, "Bill, do you fish?" And the bond was established. He did fish, and hunt, and hike, and camp, and collect snakes—he is a herptologist for fun.

"How are you on trout?" he asked.

"Trout?" I laughed. I knew as well as any deep south fisherman that trout belong to regions and waters farther toward the Mason-Dixon line than he and I lived.

And then he mentioned the magic words: "Cohutta Mountains," the foothills of the Appalachian Mountain chain, which extend down into the northern part of Georgia, and are part of the Chattahoochee National Forest. And in the same breath he said, "Rainbow, Browns, and Native Speeks." This was in March. On the first day of April, the first day of Georgia's trout season, he and I were standing in the roaring white water of the spring swollen Conasauga River, and I was having trouble convincing myself that this was really Georgia.

On that day I began a summer-long odyssey that was almost an obsession, one that led me again and again to the mountains of north Georgia, and one that caused me to release every fish I caught that summer because it was not a trout. My odyssey did not end until late August, and the experiences which I accrued during that summer won me to a new kind of fishing.

The first time I saw a trout stream in seriousness was on that cold April morning with Bill. It was just at day break and we saw the upper reaches of the Conasauga River from the road, two hundred or more feet below us. It was almost directly below us, the slope was so steep. Somehow, in the half light of dawn, we slipped, slid, and climbed down the slope to arrive at a rapids of swirling clear water that broke and roared into white water and eddies and pools. In the white roar I assembled my fly rod and found in myself a wild desire to be in the water, to be a part of it.

What little I know of trout fishing now reveals to me how ignorant I was then. So I do not wonder why I did not catch a trout that day. But the experiences of the day did not lessen my desire to catch, or even see, a trout, for I had never seen one, live and swimming or even in a creel — only pictures.

I had not been fishing for more than fifteen minutes when I learned the first lesson of stream fishing — care. As I gave my fly line plenty of length and felt the rod just right in my hand, I got a mental picture of myself standing in the fast water, fly line lashing out. It was a very pretty picture, just like on the tackle store calendar. As I concentrated on the image, I stepped over a rock and found no bottom on the other side. Too late, I felt the April waters of the Conasauga River running into my new waders. The shock was fantastic. But later I built a fire, stripped off my clothes and dried both them and me.

I did not see a trout that day, but for several nights after that, when I closed my eyes to sleep, I saw swirling water washing clear and sun brightened over a kaleidoscopic pattern of multicolored rocks. I heard the water roaring and rippling, and saw mountain banks of white pines, mountain laurel — not yet bloomed — American holly, and beneath them, deer tracks and turkey tracks. And this was in the mountains of north Georgia — not the Rocky Mountains nor the fast water of Maine. I had to go back, and once I woke my wife to tell her I was glad we moved to Georgia.

An obsessed odyssey is probably the best way to describe that summer, for it was an odyssey in search of a trout and an obsession to the point that no amount of time, money or distance seemed too great. Many Friday afternoons after my last lecture I gassed up the car, packed a sandwich for supper, and drove some sixty-five miles to thrash trout waters for three or four hours and then drive home again in the dark. Every Saturday morning as daylight came, I waded out into the rising mist and rushing waters of the Conasauga River to try dry flies, wet flies, whole kernel corn, salmon eggs, spoons, spinners, crickets and worms, releasing everything that was not a trout, regardless of size.

What I realized later was that if I had gone to Holly Creek, which had been stocked before opening day, or one of the trout management streams such as the ones at Blue Ridge, Chattahoochee, Chestatee, Lake Burton or Warwoman, I would probably have had much better luck much sooner.

But I did not realize it, and I worked on the theory that if I fished one area long enough and tried enough bait, I would eventually learn the area well enough and the correct bait soon enough to eventually catch a trout. I chose the Conasauga River, mainly because it was the first one I had fished, and I fished the lower end of it more than the upper section, which proved later to be better fishing.

I fished it in the gray light of early morning. I fished it when I was wet from head to toe, a condition brought on by slippery rocks and deep holes, and one which I finally came to accept as inevitable. I fished it until it was too dark to see a fly on the water and I had to find my way back to the car in the pitch black of night. I fished it in drenching downpours and sweltering heat and swarms of black flies and mosquitoes. And I fished it when I could see fish dimpling the surface of the water but could not get a taker.

Catching a trout then seemed to be the most impossible thing in the world. And what should have been trips of relaxation were, in reality, trips of "quiet desperation."

But while I did not catch a trout, I did improve my skills and my knowledge of fish and angling. Let me hasten to add that I am no fishing novice by any means. I cut my fishing teeth on a bamboo fly rod and an old-fashioned tubular steel casting rod. In fact, when I was eleven years old, I won the local weekly bass-fishing contest with a solid five-pound large mouth bass. But in a trout stream, I was most certainly out of my element. What I had to do was adapt what I already knew to a completely different surroundings and a completely different kind of fish.

On my home ground of Guntersville Lake in Alabama, I had been accustomed to miles of open water to accommodate my back cast. Forty feet of fly line never required a backward glance or a glance upward out on the lake. I simply picked my target and flipped a fly to it. But I learned quickly that a stream fisherman's eye has got to be quick and that his hand has got to be as quick as his eye, that he must make split second judgments of distance, not only between himself and his target, but also between himself and the overhanging limbs and bushes behind him, and that he must watch behind him for outcropping rocks that will cut his line or break his hook.

The grandest trick of all was to learn to negotiate a rapids while keeping up a false cast, watching fore, aft, and aloft for limbs and branches, sizing up the water for likely trout holes, and feeling with the feet for a solid place to stand. More times than once I have wished for feet that could grasp rocks like eagles' claws.

Little tricks that I had once learned for fun I now practiced in earnest. The side cast, for example, is of little importance to a lake fisherman standing in the bow of a boat and dropping a popping bug into the lily pads. He may use it simply to vary the monotony. In the close quarters of a trout stream with a low over-head and wide water I was glad that I had learned it. The roll cast, which I learned in order to flip a popper under an overhanging bush where a bream was rising, I now learned to do in close places with a bush or rock at my back. The reverse cast I do not ever remember learning; it came almost as second nature. In fact, I was doing it with accuracy before I realized that I was doing it at all.

Little by little, I polished my technique and little by little I lost fewer and fewer flies. By trial and error I learned to mend my cast on fast moving water and as I got used to the fast water, I also learned to use it to my advantage.

The first time I stepped into a pool and saw the long dark shadow of a trout streak away to the other end, I realized that there was some benefit in reading water. By book and by experience I learned this too, to some degree. Writers on trout fishing got as much study, scrutiny, outline, and notation from me as Emerson or Kant ever got. By applying something new each time I went fishing, I arrived at last at a time when I could stand at the edge of a new water and, making mental notations, map my route and lay a plan of action before I began to play out line for my false casts. I could spot an undercut bank, determine the streams of current within the stream and find the quiet waters and the eddies.

I added new words to my vocabulary too, such words as hackle and split wing, hair wing and fanwing. I added stone fly, brown quill and nymph. I learned the life cycles of the May fly, the caddis fly, the stone fly and dragon fly. Trout fishing was pretty educational, I told myself, and I even went so far as to buy a copy of Dame Juliana Berners' *The Treatis of Fishing with an Angle* and read it in the middle English in order to convince myself that I was not neglecting my study time.

There is a belief in this country that if you wait long enough and work hard enough, eventually you will succeed. And maybe there is something to it. Certainly an obsession will not let you rest, and the obsession coupled with the statistics on which that old saw must rest must eventually produce results, even a result as wily as a trout.

I actually caught my first trout in the Great Smoky Mountains of Tennessee. He was only seven inches long, and he was a very stupid trout, having taken a cigarette filter before I caught him, but he was mine and I felt as though I had not joined the tail end of the trout fisherman's ranks, that I also had rejoined the human race. And this one fish was the beginning of a new world of fishing for me, because after that I began to catch trout. Whether I learned something over the summer or broke a jinx or whether I found the right places to fish, I don't know, but I began to limit out rather frequently, a thing which, in July, I had come to expect never to do.

The days from September to mid-October were beautiful days in the Cohutta mountains. Every weekend I caught my limit, and as the leaves turned in the mountain's early fall, I became aware of cardinal flowers and the blue of lobelia along the streams. There were pools where I floated a fly in the dark purple reflections of ironweed, the orange of jewelweeds and the yellow of wild sun flowers. And now I became aware that during the summer I had fished in the over-hanging whites and pastels of mountain laurel and rhododendron. I also remembered orange banks of flame azaleas in the spring, but in my obsession I had not seen them. Now, in my more relaxed mood, my subconscious, which had stored these images for me, released them, and I remembered that there had been more to trout fishing than catching trout; there had been something besides the lures of rainbows and browns that kept calling me back.

And through it all, what kept amazing me was that all of this was in Georgia, a state that I had always associated with quail hunting, peaches and lunker bass. Later I learned of the work of such men as Claude Hastings, Northern Region Fisheries Supervisor, who have worked to make Georgia trout fishing what it is today. Their work of transplanting the rainbow from the west and the recent importation of the brown German trout, coupled with ideal trout waters natural to the mountains of Georgia, have brought far away fishing right to our door steps.

Thankful for it all, I went about my trout fishing. On the last day of the season in mid-October, Bill and I fished Holly Creek over most of its fishable length. It was a day that dawned cloudy, but in the banks of fall leaves, the reds and purples of sweet gums, the reds and yellows of maples and hickories, the gray sky was not important. The water swirled clear and cold around our waders and the outcropping rocks, and in the water, fall leaves came floating and tumbling along the fast water to eddy and float in still waters as montages of reds, greens, purples and yellows. I limited out that day and saw a doe cross the creek ahead of me. It was the end of a perfect season.

The author spent a long hard summer in pursuit of his first Georgia trout.

the outdoor world

Alcovy Project Costly To Game And Fish

Channelization of the Alcovy River in Walton and Newton counties under a proposed Soil Conservation Service watershed project could be very costly to wildlife and fish in the river bottoms, the State Game and Fish Commission told landowners of the two counties, February 27.

At a hearing for the project, held at Monroe, the Commission's coordinator of Information and Education, Jim Morrison, emphasized that the State Game and Fish Commission was not opposed to the entire project, but did feel that channeling and dredging of some 80 miles of stream would not only destroy habitat for both game animals and fish, but would jeopardize fishing in Lake Jackson.

Morrison pointed out that studies of similar projects show that channelization of streams result in losses as high as 90 per cent of game fish. He added that draining the swamps would destroy habitat for deer, ducks, rabbits, raccoons, mink, otter, muskrat and beaver. "All of these species will virtually disappear from the area permanently if the planned modifications are maintained in future years," he said.

"The State Game and Fish Commission is seriously concerned about the siltation that inevitably will occur in the Alcovy during the project work, which will last over a period of at least seven years," said Morrison. "This is especially disturbing at a time when the State Game and Fish Commission is spending thousands of dollars on research and management programs in Lake Jackson designed to improve fishing there which are dependent on a high water quality in the Alcovy River.

"Only two weeks ago, the Commission stocked 150 adult white bass into Lake Jackson in an effort to establish this popular game fish there," he said.

He cited a study of twenty-three similar projects in North Carolina which were highly destructive to wetland wildlife. In Mississippi, he said, one stream that had averaged 240 pounds of fish per acre had only five pounds of fish per acre after channelization.

As an alternate, he suggested that deadfalls, logs and similar obstructions be removed from the river channel, to open it to freer flow and to small boat passage.

Deer populations have reached such a high in the Alcovy swamps that for the past two years, Newton County has had a one-day doe season, he said. "The largest Boone and Crockett Club deer rack of the 1967 Georgia hunting season was bagged by a hunter in Newton County in the Alcovy River Swamp," he pointed out.

Morrison said the Game and Fish Commission was calling on the Soil Conservation Service and the U.S. Bureau of Sport Fisheries and Wildlife to meet with them to resolve these problems before proceeding with the project. *Dean Wohlgemuth*

Hunting on Cumberland?

Hunting and fishing on portions of Georgia's 23,000-acre Cumberland Island will be allowed if the island becomes a national seashore, Vincent Ellis, representative of the National Park Service in Georgia, has revealed.

Eighth District Representative W. S. Stuckey Jr. of Eastman, is considering introducing a bill which would make the island a national seashore.

Described as a wildlife paradise, the island teems with deer, ducks, wild hogs and small game. Within its boundaries are some of the finest examples of unspoiled beaches, oak and pineland forests, and saltwater marshes in the United States. (See "An Island Called Cumberland," Sept. 1968).

The island is now under private ownership, but Ellis said he believed several thousand acres could be purchased immediately. "Of course, hunting and fishing would not be allowed on all the island, or on all of the area," Ellis said. "But we would work with Georgia's Game and Fish Commission to set up hunting areas and schedules allowing as much hunting as possible."

Ellis explained there are three categories of National Parks, natural areas such as Yellowstone; historical, as Georgia's Kennesaw Mountain National Battlefield Park; and recreational, such as Cape Cod, Massachusetts; Hatteras, North Carolina; and Padre Island, Texas.

Larry Smith, project leader of the State Game and Fish Commission's striped bass study, presents a check to Marion Beckworth of Louisville, Georgia, for the tagged striped bass he caught out of the Altamaha River. More than 1,000 stripers have been tagged and released in the Altamaha, Savannah, and Ogeechee rivers. Each tag is worth $1 or more to the angler who returns it to the State Game and Fish Commission, P. O. Box 1097, Brunswick, Georgia 31520. Each year the Commission draws a tag from those returned to the office and presents the lucky angler who returned that tag with an additional cash award. The striped bass study is supported by federal and state funds provided by the Andadromous Fisheries Act of 1965.

Hunting is only allowed in recreational areas, which would include Cumberland Island, unless legislation establishing the seashore specifically prohibits it, Ellis said.

The United States Park Service is against building a causeway to Cumberland if it becomes a national park. Instead, Ellis said ferry service could be provided from Cabin Bluff, in Camden County.

"Private boats could dock at the island, but the only ferry service would be from Cabin Bluff. Visitors to the island would not be ferried from Jekyll Island or any other island or point on the mainland," Ellis said.

Several conservation groups have endorsed the proposal. The Sierra Club, a nationwide conservation group, is encouraging interested persons to write Representative Stuckey and the Camden County Commissioners urging establishment of the national seashore without a causeway.

However, Stuckey has postponed introduction of a Cumberland Seashore Bill at the request of the Camden County Commissioners, who voted five to one to leave development of the island to private interests. The Sea Pines Corporation, developers of the exclusive Hilton Head Island Resort in South Carolina have already announced that they have purchased 3,000 acres on Cumberland, to be developed into a private resort. *John Culler*

Sportsmen Speak...

JACKALOPE

When sports writers (outdoor—pardon the pun) have nothing to do, we come up with most anything....

I did a little playing with my camera and came up with this one, thought you might be interested.

Here is a picture of a 'Jackalope' (Ananias Prevaricatus) reputedly the product of a mesalliance between a near sighted western jack rabbit and a small antelope.

Little is known about this creature but it is said to be one of the fastest runners in the world since both antelopes and rabbits don't like the sight of it and hope to do it bodily harm.

It feeds, exclusively, on bees and small birds, which it overtakes, from behind while in full flight. The only known method of capture is to shoot 50 feet ahead of a speeding road runner which has just been passed by a jackalope.

It breeds only once in a lifetime and this in its 1st adult year, since the young are born with horns and the mother doesn't want to go through that again.

The only portion of the jackalope that is of use is the horn which makes a fine can opener.

Maybe the Georgia Game and Fish Commission can do something with it. Here in Tennessee there is no interest as the jackalope is totally unmanageable.

Ken Wynn
Outdoor Editor
The Chattanooga Post
Chattanooga, Tennessee

STEWART COUNTY

I read with much interest of the research that has been done about the effects of running deer with dogs.

Season before last, several of my friends and I hunted on a large tract of Georgia land in Stewart County, with about half of us getting one buck apiece. There were a lot of deer in this area and plenty of signs. A large group of dog hunters from South Georgia started hunting in this area, and would have run after run all day long, practically every day during the season, in this area. One of them told me they had killed 28 deer in this area in one season. This season there were no signs of any deer anywhere in this area.

These group of dog hunters, sometimes numbering 35 men and about 50 dogs, just take over the hunting areas; a deer can hardly escape this wholesale slaughtering. It is hard to tell what sex a deer is, running from dogs, so a lot of doe are killed. Also, sometimes the dogs come back bloody indicating they had caught and killed a fawn or doe or maybe even a buck.

We still hunters don't have a chance. I live in Muscogee County, where all the deer hunting is either on privately owned land or on the Ft. Benning Reservation, so I have to drive 35 miles to land owned by Georgia Kraft and St. Regis that is open to hunt. Now the dogs have done away with that. Several times this year my friends and I would go into the woods and get on a stand only to be interrupted by a large group of dogs and men and have to come home. These men hunt in the public roads and shoot deer when they cross the roads. The roads are blocked with their vehicles and the local residents can hardly travel them. Also, there is a St. Regis Hunting Preserve near this area and the men put the dogs into it and kill the deer when they come out. Any posted land can be hunted in this manner.

One of the local residents told me the Sheriff of that County was considering asking the timber companies to close their lands for hunting, because he has had so much trouble this past season from hunters — mostly dog hunters — hunting on posted land, shooting cattle and hogs, breaking down fences and gates, and blocking up the public roads. If this happens, a lot of us might as well not buy hunting licenses next season.

Because of it being legal to hunt with dogs and because of the large open hunting areas in Stewart County hunters come from all over Georgia. Some laws need to be passed, maybe to limit the amount of dogs and hunters together or restrict dog hunting to one month, or preferably do away with dog hunting entirely while there are some deer left. One Game Warden in a County of this size cannot possibly control the fishing and hunting at the same time.

Please print this letter or pass it along to anyone that would be interested and could possibly help this situation.

Yours truly,
W. T. Womack, Jr.
Midland, Georgia

DOGS AND DEER

I don't seem to have your Director's address. After reading this letter, will you please see that he reads it too, for I am not only writing this for myself but for 15 or 20 more that feel the same way I do, and probably hundreds of others, I don't know.

We all buy hunting and fishing licenses each year, and it is very disgusting to go out to hunt and there be no game to hunt, because of wild dogs brought out from the city to the woods. Fox hunters carry packs of 15 to 20 to the woods every night of the year and leave most of them to kill doe and yearlings and destroy quail nests and kill young birds.

We were hoping that the State Game and Fish Commission could get a $10 tax fee on every dog in Georgia with every dog having to wear a collar with a state tag and rabies tag with the owner's name and address, with half the money going toward management of game and the other half to our schools.

To my knowledge, the fox hunters are training dogs to be deer dogs at other hunter's expense and loss, and then are selling them farther down in the state.

If there could be a law passed to the effect that all dogs without a collar in the woods be destroyed, we would have fewer dogs, and better dogs, a lot more game, and a better state to live in.

I have written to the Governor. I am also going to get in touch with our county representative. If it will be of any help to the Commission, I can send a list of hunters' signatures that feel the way I do.

J. W. Todd
Toccoa, Georgia

"CONTRADICTION"

I would like to congratulate you on a fine magazine that is experiencing deserved success. I feel that your stories, in the past, have been interesting and beneficial to the Georgia sportsman. An example of this is your article "Duck Hunting Georgia Style." This article is very informative and helpful to anyone who is interested in duck hunting in Georgia.

The only complaint I have with the January 1969 publication is that in the article, "Duck Hunting Georgia Style," you stated: "Another asset to this hunting has been the creation of ponds by beavers in many areas of Georgia. These ponds afford excellent nesting habitat for the wood duck, as usually produce a food crop that is used extensively by wintering flocks of migratory birds."

The reader has only to turn eight pages and he would find the article entitled, "Tan Your Own Hide," in which you explain how beaver pelts can be sold to Out of State companies. I feel that your choice of articles, in this case, was very poor and contradictory. The sportsman of Georgia should be encouraged to protect the beaver rather than use it as a profit motive. I feel that this article also fell short in clarifying to the readers what restrictions are placed on trapping by the State Game and Fish Commission. An article in the future explaining the trapping regulations of animals and fish would be very helpful.

Charles Moseley
Macon, Georgia

As brought out in the duck article, beavers are valuable for increasing wood duck nesting and feeding habitat. Like any wildlife species, when they become numerous enough, they should be harvested within reason. If they become a pest to a landowner, in many such instances they should be removed, in which case the removal is best done by a trapper or youngster who can benefit from it by selling the hides. Incidentally, we were unable to locate any fur companies in Georgia.

In Memoriam

Charles Mercer, 33, of Macon, Wildlife Ranger for Bibb County, died Nov. 28, 1968, in a vehicle accident while on duty. He had been employed by the Game and Fish Commission as a Wildlife Ranger for nearly six years.

Sportsman's Calendar

SEASONS OPEN THIS MONTH

TURKEY

Season—March 15-April 12, 1969 in Ben Hill, Coffee, Charlton, Dodge, Pierce, Stuart, Telfair, and Wilcox counties. Only that portion of Clinch and Echols counties lying East of U.S. 441 and South of Ga. 94. Bag limit one (1) turkey gobbler.

Season—March 24-April 16, 1969 in Camden, Chattahoochee, Columbia, Lincoln, Marion, McDuffie, Muscogee, Talbot, Warren and Wilkes counties. Bag limit one (1) turkey gobbler.

Season—April 14, 1969 through April 19, 1969 on Blue Ridge, Chattahoochee, Johns Mountain, and Warwoman Wildlife Management Areas only.
Bag Limit—One (1) turkey gobbler.

Season—April 19, 1969 through May 3, 1969 in Banks, Chattooga, Dawson, Fannin, Floyd, Franklin, Gilmer, Gordon, Habersham, Murray, Rabun, Stephens, Towns, Union, Walker, White, and Whitfield Counties.
Bag Limit— One (1) turkey gobbler.

TROUT

Open Stream Season — April 5, 1969 through October 4, 1969.

Creel Limit—Eight (8) trout of all species per day. Possession limit—8.
(Management Area Streams—Open on scheduled days, May 3-Sept. 1, 1969).

Management Area	Stream	May	June	July	August	September
BLUE RIDGE	Jones Creek (Artificial Lures)	Sat., Sun.	(Sun., June 1) Wed., Thurs.	(Fri., July 4) Sat., Sun.	Wed., Thurs. (Sat., Aug. 30) (Sun., Aug. 31)	(Mon., Sept. 1)
	Montgomery	Wed., Thurs. (Closed May 1)	Sat., Sun. (Closed June 1)	Wed., Thurs.	Sat., Sun.	(Mon., Sept. 1)
	Nimblewill	Sat., Sun.	(Sun., June 1) Wed., Thurs.	(Fri., July 4) Sat., Sun.	Wed., Thurs. (Sat., Aug. 30) (Sun., Aug. 31)	(Mon., Sept. 1)
	Noontootley (Artificial Lures) (Catch and Release)	Wed., Thurs. (Closed May 1) Sat., Sun.	Sat., Sun. Wed., Thurs.	Wed., Thurs. Sat., Sun. (Fri., July 4)	Wed., Thurs. Sat., Sun.	(Mon., Sept. 1)
	Rock Creek	Wed., Thurs. (Closed May 1) Sat., Sun.	Sat., Sun. Wed., Thurs.	(Fri., July 4) Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Mon., Sept. 1)
CHATTAHOOCHEE	Chattahoochee	Sat., Sun.	Wed. Sat., Sun.	(Fri., July 4) Sat., Sun.	Sat., Sun.	(Mon., Sept. 1)
	Dukes	Wed., Thurs. (Closed May 1)	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	(Mon., Sept. 1)
CHESTATEE	Boggs	Wed., Thurs. (Closed May 1)	Sat., Sun. (Closed June 1)	Wed., Thurs.	Sat., Sun.	(Mon., Sept. 1)
	Dicks	Sat., Sun.	(Sun., June 1) Wed., Thurs.	(Fri., July 4) Sat., Sun.	Wed., Thurs. Sat., Aug. 30 Sun., Aug. 31	(Mon., Sept. 1)
	Waters (Artificial Lures)	Sat., Sun.	(Sun., June 1) Wed., Thurs.	(Fri., July 4) Sat., Sun.	Wed., Thurs. Sat., Aug. 30 Sun., Aug. 31	(Mon., Sept. 1)
LAKE BURTON	Dicks	Wed., Thurs. (Closed May 1)	Wed., Thurs.	Wed., Thurs.	Wed., Thurs. Sat., Aug. 30 Sun., Aug. 31	(Mon., Sept. 1)
	Moccasin (Not stocked)	Sat., Sun.	Sat., Sun.	(Fri., July 4) Sat., Sun.	Sat., Sun.	(Mon., Sept. 1)
	Wildcat	Sat., Sun.	Sat., Sun.	(Fri., July 4) Sat., Sun.	Sat., Sun.	(Mon., Sept. 1)
LAKE RUSSELL	Middle Broad	Wed., Thurs. (Closed May 1) Sat., Sun.	Sat., Sun. Wed., Thurs.	(Fri., July 4) Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Mon., Sept. 1)
WARWOMAN	Finney (Not Stocked)	Wed., Thurs. (Closed May 1)	Sat., Sun.	Wed., Thurs.	Sat., Sun.	(Mon., Sept. 1)
	Sarahs	Sat., Sun.	(Sun., June 1) Wed., Thurs.	(Fri., July 4) Sat., Sun.	Wed., Thurs. (Sat., Aug. 30) (Sun., Aug. 31)	(Mon., Sept. 1)
	Tuckaluge	Wed., Thurs. (Closed May 1)	Sat., Sun. (Closed June 1)	Wed., Thurs.	Sat., Sun.	(Mon., Sept. 1)
	Walnut Fork and Hoods Creek	Sat., Sun.	(Sun., June 1) Wed., Thurs.	(Fri., July 4) Sat., Sun.	Wed., Thurs. (Sat., Aug. 30) (Sun., Aug. 31)	(Mon., Sept. 1)

TIDE TABLE

APR.—MAY 1969

GEORGIA COASTAL WATERS

HOW TO USE THESE TABLES

The calculations are for the outer bar. Find the reading for the desired tide. In the table below find the number of minutes to add to correct for the place you are going to fish or swim. The outer bar calculation, plus this correction, gives the correct reading for the point desired.

Adjust For Daylight Saving Time By Adding One Hour

CORRECTION TABLE

The times given are for Savannah River entrance (Tybee).

	Hrs.	Min.
Savannah High	0	44
Savannah (Low)	*	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabaw Sound	0	05
Vernon View	0	35
Coffee Bluff	0	55
Ogeechee River Bridge	3	50
St. Catherine Sound	0	25
Sapelo Sound	0	00
Brunswick Bar	0	00
St. Simon Pier	0	25
Frederica Bridge	0	50
McKay Bridge	0	50
Brunswick East River	0	50
Turtle River Bridge	0	55
Turtle River, Crispen Is.	1	10
Humpback Bridge	1	00
Jekyll Point	0	30
Jointer Island		55
Hampton River Village Creek Ent.	0	20
Village Fishing Camp	0	45
Taylor Fishing Camp	1	00
Altamaha Fishing Park, Everett, Ga.	4	00
Two-Way Fishing Camp, S. Altamaha	2	00

	Full Moon	Last Quarter	New Moon	First Quarter
APR.	2	9	16	24
MAY	2	8	16	24

APRIL, 1969

Day	A.M.	HIGH WATER HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Tues.	6:54	7.0	7:12	7.4	12:54	1:06
2. Wed.	7:30	7.2	7:54	7.7	1:36	1:48
3. Thurs.	8:06	7.2	8:30	7.9	2:18	2:24
4. Fri.	8:48	7.1	9:12	7.9	3:06	3:06
5. Sat.	9:30	6.8	10:00	7.8	3:48	3:48
6. Sun.	10:18	6.5	10:54	7.5	4:36	4:36
7. Mon.	11:12	6.2	11:54	7.2	5:30	5:30
8. Tues.			12:18	5.9	6:30	6:36
9. Wed.	1:06	6.9	1:30	5.8	7:42	7:54
10. Thurs.	2:18	6.7	2:42	5.9	8:54	9:12
11. Fri.	3:36	6.7	4:00	6.3	9:54	10:18
12. Sat.	4:42	6.9	5:06	6.8	10:54	11:18
13. Sun.	5:42	7.1	6:00	7.4	11:42	. .
14. Mon.	6:30	7.3	6:42	7.8	12:06	12:30
15. Tues.	7:12	7.3	7:24	8.0	1:00	1:12
16. Wed.	7:48	7.1	8:06	8.0	1:42	1:54
17. Thurs.	8:24	6.9	8:36	7.9	2:24	2:36
18. Fri.	9:00	6.6	9:12	7.7	3:06	3:12
19. Sat.	9:36	6.2	9:48	7.4	3:42	3:48
20. Sun.	10:06	5.9	10:30	7.0	4:24	4:24
21. Mon.	10:48	5.6	11:12	6.7	5:00	5:06
22. Tues.	11:36	5.4			5:48	5:54
23. Wed.	12:00	6.4	12:24	5.2	6:36	6:48
24. Thurs.	12:48	6.2	1:24	5.2	7:30	7:54
25. Fri.	1:42	6.1	2:24	5.4	8:30	8:54
26. Sat.	2:42	6.1	3:30	5.8	9:30	9:54
27. Sun.	3:42	6.2	4:24	6.3	10:18	10:42
28. Mon.	4:42	6.4	5:12	6.8	11:00	11:36
29. Tues.	5:30	6.7	6:00	7.4	11:48	
30. Wed.	6:18	6.9	6:42	7.9	12:24	12:30

MAY, 1969

Day	A.M.	HIGH WATER HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Thurs.	7:00	7.1	7:24	8.3	1:12	1:12
2. Fri.	7:42	7.1	8:12	8.4	2:00	2:00
3. Sat.	8:30	7.0	9:00	8.3	2:48	2:42
4. Sun.	9:18	6.8	9:48	8.1	3:36	3:36
5. Mon.	10:06	6.5	10:48	7.7	4:24	4:24
6. Tues.	11:12	6.3	11:48	7.3	5:24	5:24
7. Wed.			12:18	6.1	6:24	6:30
8. Thurs.	1:00	7.0	1:24	6.2	7:30	7:42
9. Fri.	2:06	6.8	2:36	6.3	8:30	8:54
10. Sat.	3:12	6.7	3:42	6.7	9:30	10:00
11. Sun.	4:18	6.6	4:42	7.1	10:24	11:00
12. Mon.	5:12	6.7	5:36	7.5	11:12	11:48
13. Tues.	6:00	6.7	6:18	7.7		12:00
14. Wed.	6:42	6.7	7:00	7.9	12:36	12:42
15. Thurs.	7:24	6.5	7:36	7.9	1:18	1:24
16. Fri.	8:00	6.4	8:12	7.8	2:00	2:00
17. Sat.	8:30	6.1	8:48	7.6	2:42	2:42
18. Sun.	9:06	5.9	9:24	7.3	3.18	3:18
19. Mon.	9:42	5.7	10:00	7.1	4:00	4:00
20. Tues.	10:24	5.5	10:42	6.8	4:36	4:36
21. Wed.	11:06	5.4	11:24	6.6	5:18	5:24
22. Thurs.	11:54	5.4			6:00	6:12
23. Fri.	12:12	6.4	12:48	5.5	6:48	7:12
24. Sat.	1:06	6.2	1:42	5.7	7:42	8:12
25. Sun.	1:54	6.2	2:42	6.1	8:36	9:12
26. Mon.	2:54	6.2	3:36	6.6	9:30	10:12
27. Tues.	3:48	6.3	4:36	7.1	10:18	11:00
28. Wed.	4:48	6.4	5:30	7.6	11.06	11:54
29. Thurs.	5:42	6.6	6:18	8.1	11:54	.
30. Fri.	6:30	6.8	7:06	8.4	12:48	12:42
31. Sat.	7:24	6.9	7:54	8.6	1:36	1:36

To report violations or if you need assistance in the Coastal Area—Call—State Game & Fish Commission, Brunswick, Georgia, P. O. Box 1097, Phone 265-1552, Savannah 233-2383, Richmond Hill 756-3679.

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A Silver Lining in Every Cloud?

This year's session of the Georgia General Assembly was less significant than the sportsmen and conservationists of our State could have hoped for.

Although they were much weaker than most observers felt were necessary to completely do the job, the General Assembly did pass two dog control laws in their 1969 session. The most important bill will require (rather than merely allow) county boards of health to have a dog control warden and dog pound. Only 35 of Georgia's 169 counties now have such facilities for taking care of abandoned or stray dogs responsible for most of the State's dog problems.

In addition, the new law to take effect on July 1, 1970 will require all dogs to be vaccinated for rabies, to be identified by a numbered tag on a collar or harness, and will authorize counties to charge a modest 50 cent fee for individual dog licenses. A second new law will make dog owners liable for the actions of their dogs, and will require the penning of female dogs in heat.

The two bills were supported by the State Game and Fish Commission as improvements over existing law, although they contained no provisions for state-wide administration of the control program or any state-wide requirements for penning or leashing of dogs not being used for useful purposes like hunting, etc., or except while on the property of their owner or under his direct control. Without these features, it remains to be seen if the two new laws will go far enough to halt the annual slaughter of more than 3,000 deer and 8,000 cattle in Georgia by uncontrolled dogs. Additional strengthening may be necessary.

The other highlight of conservation legislation that passed both houses of the General Assembly was the Scenic Rivers Act, establishing a system of legal protection for unique Georgia streams from desecreation by dams, channeling, and unwarranted development or pollution. The Act does not create any scenic rivers, but provides the framework for future additions of rivers to the system by individual acts of the General Assembly, based on recommendations from studies of the Georgia Natural Areas Council.

Conservationists in all parts of Georgia were disheartened by the failure of attempts to provide legal protection for the Georgia coast and its invaluable marshlands. A bill to create a State Marshlands Protection Board of conservation-oriented members to place a check rein on irresponsible uses of marshlands and adjacent sea bottoms was stripped of many of its important provisions in a House committee. (State Institutions and Property)

A "compromise" committee substitute which eliminated the state board in favor of local county and city control did contain a worthwhile provision requiring marsh meddlers to prove their ownership before permits would be issued to them for filling or dredging in the coastal area. This modified bill barely passed the House after Speaker George L. Smith cast his "aye" vote for it, but then it spent the rest of the session bottled up in a Senate committee. (Industry and Labor)

Since this year's bills will carry over into next year's session, it could be revived again, especially if more interest is shown in it by the general public. So far, the support given the bill by residents of the Georgia coast itself has been discouraging. For instance, at a House public hearing called on H. B. 212, not a single resident of Savannah cared enough to attend to support it, even though the bill would have provided a legal bar to efforts like last year's by the Kerr-McGee Company of Oklahoma to turn Chatham County's green marshes and fertile saltwater rivers and creeks into an underwater open-pit phosphate mine. There was a strong turnout by Georgia's "home-grown Kerr-McGee" industrial and commercial interests from the Brunswick area in opposition to the original bill.

continued on page 16

ON THE COVER: The shellcracker, one of Georgia's larger species of "bream," highly prized by pond fishermen. For more about shellcrackers, see Dean Wohlgemuth's story on page five. Painting by Duane Raver.

ON THE BACK COVER: A nice string of shad, caught in the Augusta City Limits just below the Savannah Bluff Lock and Dam on the Savannah River. Located 201 miles from the ocean, the dam blocks the only spawning run the shad make in their lifetime, creating the best fishing spot for them in Georgia on a rod and reel. The fishermen are Cecil Clapp of Chamblee, right, and *Game* and *Fish* editor Jim Morrison. Color photo by Ted Borg.

PHOTO CREDITS: Ted Borg b. 3, 5, 6, 7, 8, 12, 13, 14, 15; Marvin Tye 9, 10, 11; Dean Wohlgemuth 2, t. 3, 4.

the outdoor world

DRAINAGE DAMAGE ON STREAMS PROTESTED BY GAME & FISH COMMISSION

The State Game and Fish Commission has defended the right of its director and professional game and fish biologists to criticize proposed river dredging and wildlife wetland drainage.

At its regular meeting in Atlanta Thursday, March 20, the Commissioners heard a report from the Commission's Director, George T. Bagby, on small watershed project activities of the U.S. Conservation Service, an agency under the federal Department of Agriculture.

Bagby said stream channelization and drainage programs initiated, planned, and financed by the SCS posed a dangerous threat to fish and wildlife habitat, and that "it is the duty and the obligation of the State Game and Fish Commission to inform the people what the effects of these projects will be, without being accused of irresponsible criticism, without being called liars, without being threatened with political reprisals."

The issue reached the Commission after a Game and Fish Department spokesman delivered a report two weeks before to the Soil Conservation Service critical of proposed stream channelization and drainage above Lake Jackson, a popular middle Georgia fishing reservoir. The report said Commission game and fish biologists believe the proposed work would destroy fishing in the Alcovy River and possibly harm fishing in Lake Jackson as well, as a result of dredging and channeling of 80 miles of the Alcovy and two of its tributaries, Big Flat Creek and Cornish Creek.

The report noted that the SCS work plan called for the drainage of 4,000 acres of swampland adjacent to the river, and the anticipated conversion of 8,000 acres of timberland into open pasture, causing a 12,000 acre loss of deer habitat and an extensive waterfowl area.

Reacting to the report, a delegation of local landowners and sponsors of the Alcovy watershed project from Walton, Newton, and Gwinnett appeared before the Game and Fish Commission meeting to protest the staff report, and to call on the Commission to approve plans for the project.

Several of the speakers denied that the Alcovy River and its swamps were good hunting and fishing areas, and said that the project would not hurt Lake Jackson, although more than 30 Jackson cabin owners and fishermen appeared in opposition to the project. Several told the Commission they believed the Alcovy River section of the Lake would be silted from the upstream dredging and draining. "The watershed plans could be changed to prevent this damage," Bagby told the meeting. "Enlarging the reservoirs instead of channeling the river is the obvious answer."

Director Bagby emphasized to the Watershed Group that the Commission did not oppose the proposed reservoirs in the Alcovy project, only the downstream channelization and draining.

"Public Law 566 does not give veto power over these projects to state game and fish commissions," Bagby said. He told the group that the SCS was required to submit final plans of the project to state wildlife agencies and the U.S. Fish and Wildlife Service, but that their comments were not binding on the Soil Conservation Service. *The SCS has already submitted their final plans for the project to Congress with their request for funds, in spite of objections to the channelization and drainage portions of the plan.*

"The false statement has been deliberately and maliciously made that the State Game and Fish Commission and its Director have opposed the approval of the Alcovy River Watershed Project," Bagby said. "This is a barefaced lie. We are not trying to kill this project. We don't have that authority. We are not trying to keep these three counties from having seven large lakes for recreation and municipal and industrial water supplies," he said. "We have objected to one portion and one portion only of the proposed watershed plans, and that is the channelization and drainage of the Alcovy River above Lake Jackson."

Bagby told the Commissioners that the Department had exerted considerable efforts over the past three years to improve fishing in Lake Jackson, and that the results had been successful. He said that the U.S. Fish and Wildlife Service recently had promised to give the State 23,000 saltwater striped bass to stock in the lake as a result of the detailed scientific work the Commission had carried out on Jackson and nearby Lake Sinclair.

The Commissioners looked at color pictures of channelization in progress or completed on several small Georgia streams, including Little River above Lake Allatoona in Cherokee County, Marbury Creek in Barrow and Oconee Counties, and Little Satilla Creek in Appling and Wayne Counties. The photographs showed bare stream banks and muddy water caused by the dredging. A series of before and after pictures showed bulldozers and draglines moving earth in the stream beds as the current flowed over the disturbed areas, including rock shoals being dynamited away.

In addition to the Lake Jackson interests, representatives of several sportsmen's organizations spoke against the channeling and draining. Executive secretary Jim Adams of the Georgia Sportmen's Federation and President Tom Goble of the Izaak Walton League both expressed their opposition to the downstream disturbances, but approved the upstream lakes.

C. Edward Carlson, Regional Director of the U.S. Bureau of Sport Fisheries and Wildlife, confirmed that his agency and the State Game and Fish Commission were not given copies of the final watershed plans until late in 1968, and that neither agency had ever approved them, but had instead protested the channelization and drainage provisions.

"Stream modification projects have destroyed between three and four million acres of bottom land hardwoods of significance to waterfowl in the last 20 years in the Southeast alone," Carlson said.

"In contrast, we have acquired only 158,751 acres of wintering ground habitat for waterfowl from 1948 to 1968 in the Southeast, and it has cost $12,430,325 from our duck stamp fund in the process," Carlson told the Commissioners.

Bagby gave the Commissioners a copy of a map of Georgia showing that 14 SCS watershed projects containing channeling and draining had already been completed, 46 had been approved for construction, and a total of 164 projects had already been applied for.

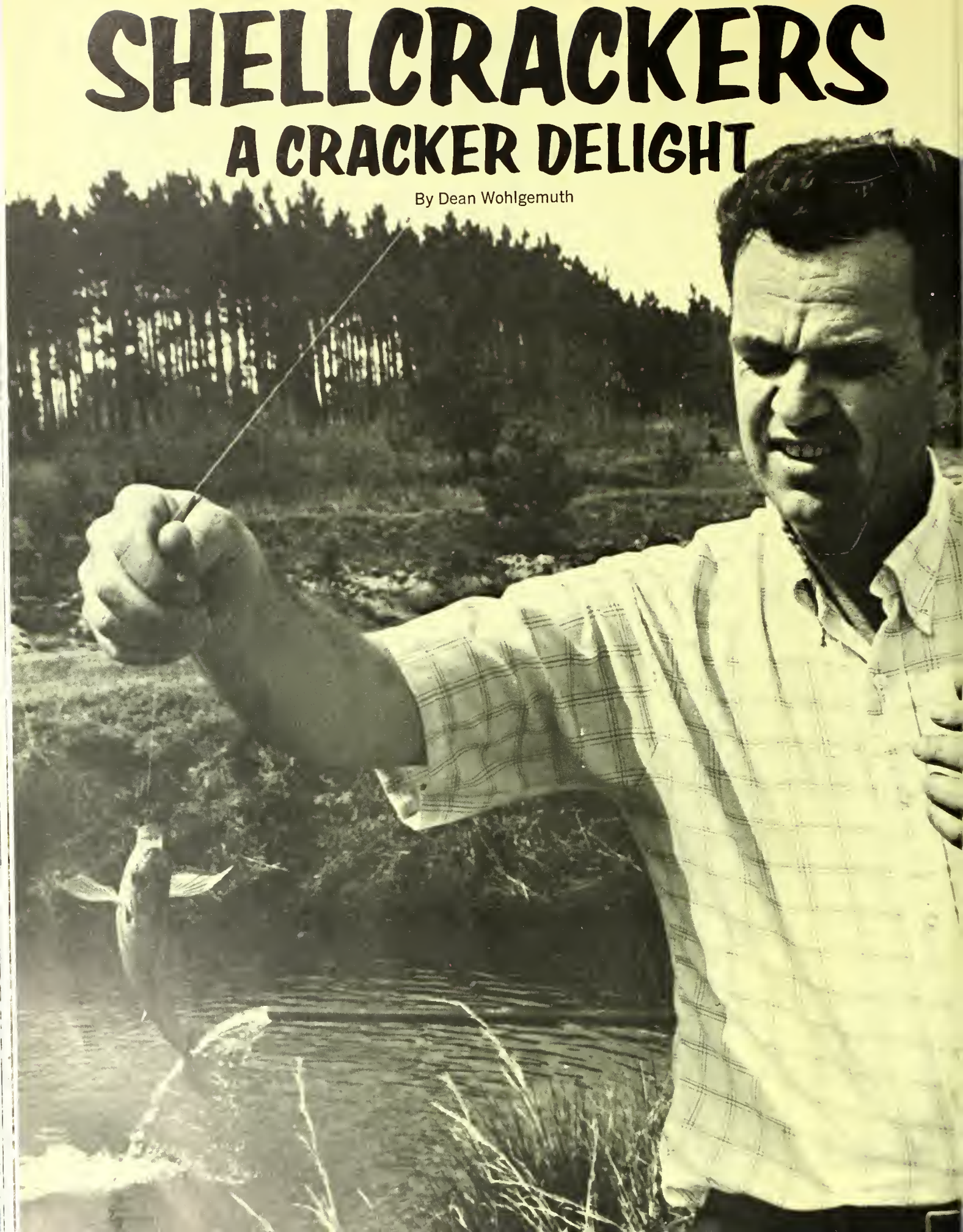
"The Alcovy project is not the most frightening aspect of the small watershed program of the SCS," Bagby said. "What disturbs me even more is the list of fine little fishing streams marked for destruction, running into every major lake and river in Georgia. We know that these channeled streams and these swamps are gone during our lifetime, if not forever."

At the conclusion of the meeting, the Commissioners unanimously passed a resolution supporting the right of the Director and his staff to inform the public of adverse effects of such projects or portions of them on fish and wildlife habitat. —*Jim Morrison*

SHELLCRACKERS

A CRACKER DELIGHT

By Dean Wohlgemuth



In spite of all the talk and writings about bass, trout, salt water big game fishes and such "glamor" species, the popularity polls still show the "bream" . . . members of the sunfish family . . . maintain a high spot in the rankings.

Though highly popular nationwide, Georgia probably is the state that appreciates these little scrappers as much as any. There's good reason. Bream are plentiful, they're ravenously hungry most of the time, and for their size they give a very fine account of themselves on light tackle.

The term "bream" covers several species, actually, though generally it could be translated to mean "bluegills." Others covered by the term, however, include redbreasts, green sunfish, pumpkinseed and shellcrackers.

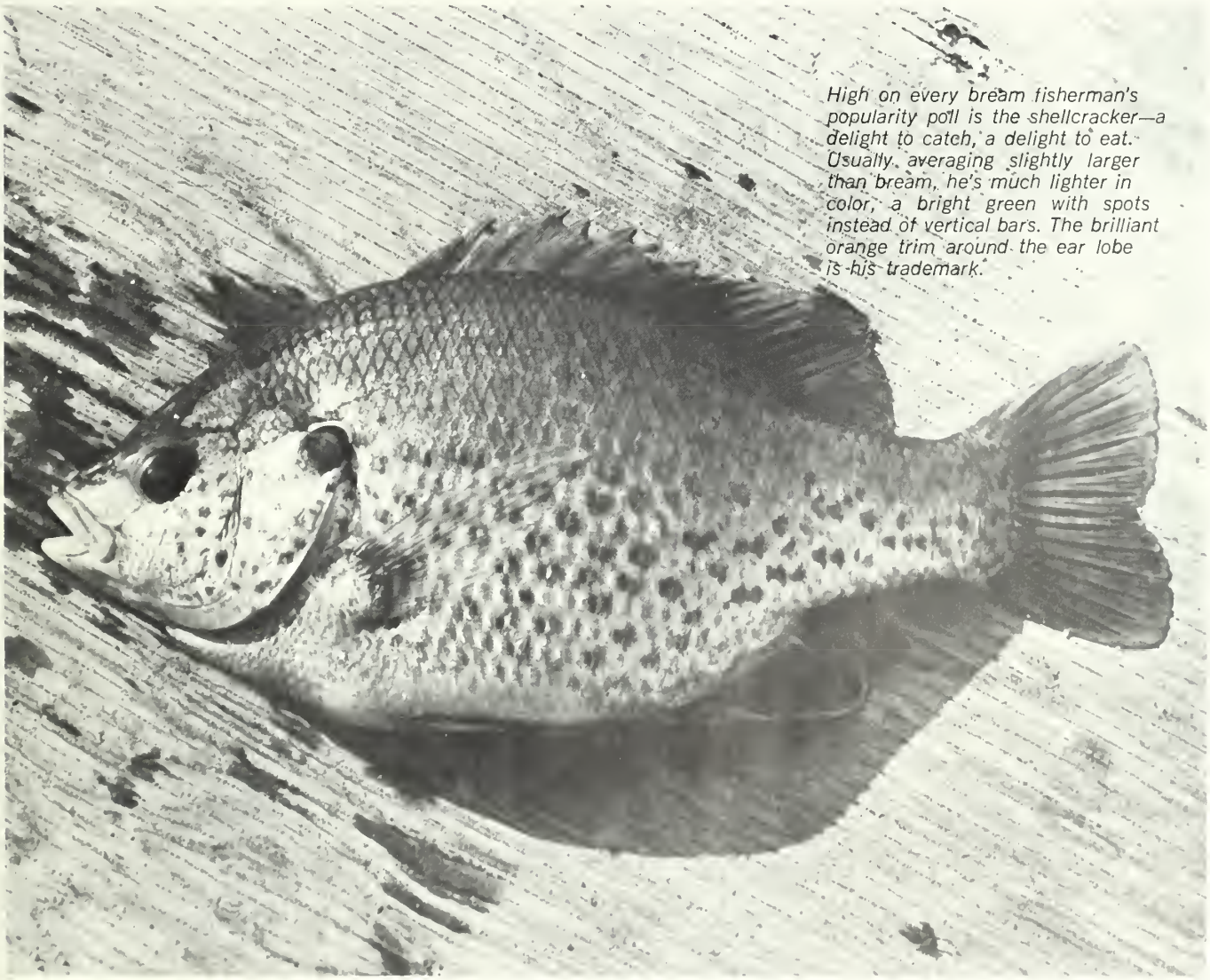
Not as plentiful as the bluegill, the shellcracker or red ear sunfish, has a following all its own. Somewhat harder to catch, he's a tenacious fighter, and generally runs a little larger than his cousin.

The shellcracker has an orange or reddish border on the ear lobe. Also, he doesn't have the barred effect that the bluegill has. He's a sort of greenish color with small, dark markings.

The diet of the red ear sunfish runs largely to snails and similar crustaceans found on the bottom of a pond, lake or river, and with a set of teeth built especially for the job, he can crack these open for dinner. This habit is responsible for his widely known nickname of "shellcracker."

Though this is a large part of his diet, it doesn't seem to be the right bait for him. You can't beat a red wiggler on a shortshanked No. 6 or 8 hook, fished right on the bottom. The best method for getting him is to put a single split shot about a foot above the hook, and use a slip cork set to let the weight go all the way to the bottom. The cork is vital in sending back to the angler the message that Mr. Shellcracker has arrived for dinner. Actually, this method is deadly on the bluegill as well, however, being on the bottom increases greatly your chances of getting the 'cracker. You'll rarely find him far above the bottom, and almost never get him on artificial lures, particularly top water types.

Here's the way to rig your line to catch him. Put a single split shot about eight inches or so above the hook, and rig your float so it will slide freely on the line. This allows the weight to reach bottom. When the shellcracker moves off with your bait, that float will still telegraph his presence!



High on every bream fisherman's popularity poll is the shellcracker—a delight to catch, a delight to eat. Usually, averaging slightly larger than bream, he's much lighter in color, a bright green with spots instead of vertical bars. The brilliant orange trim around the ear lobe is his trademark.

The best time to catch him is in early spring, a few weeks before the bluegill begins to bed. The shellcracker beds a little earlier in the year. Also, his bed will be in deeper water than the bluegill, which likes shallow water a foot or two in depth usually along the edge. The shellcracker will probably bed at least three feet deep, and perhaps as deep as six feet.

He's found in a lot of ponds and small lakes, but also is a fairly common resident in rivers and streams in south Georgia, plus some of the large reservoirs.

The Ocmulgee River is one of his favorite stomping rivers, while he also can be found in good numbers in Lakes Seminole, Blackshear and Walter F. George. Seminole seems to be his favorite lake, and sometimes shellcracker beds there are an acre or two in size.

Can't you imagine what a bed like that would do to the nose of an angler accomplished in the art of smelling out a bream bed! You can't smell bream beds? Then you haven't taken a deep breath when you've been over one! Sometimes, a bed can practically take your breath away.

A good many farm ponds have shellcracker populations, too, and the 'cracker is often stocked on purpose. His presence is a complement to the bluegill in a good balanced farm pond, because the two usually eat different foods, thus utilizing the ponds' productivity to greater advantage.

His fans are fanatical enough that some would like to see their ponds stocked only with bass and 'crackers, rather than putting bluegills in at all. Unfortunately, this won't work too well.

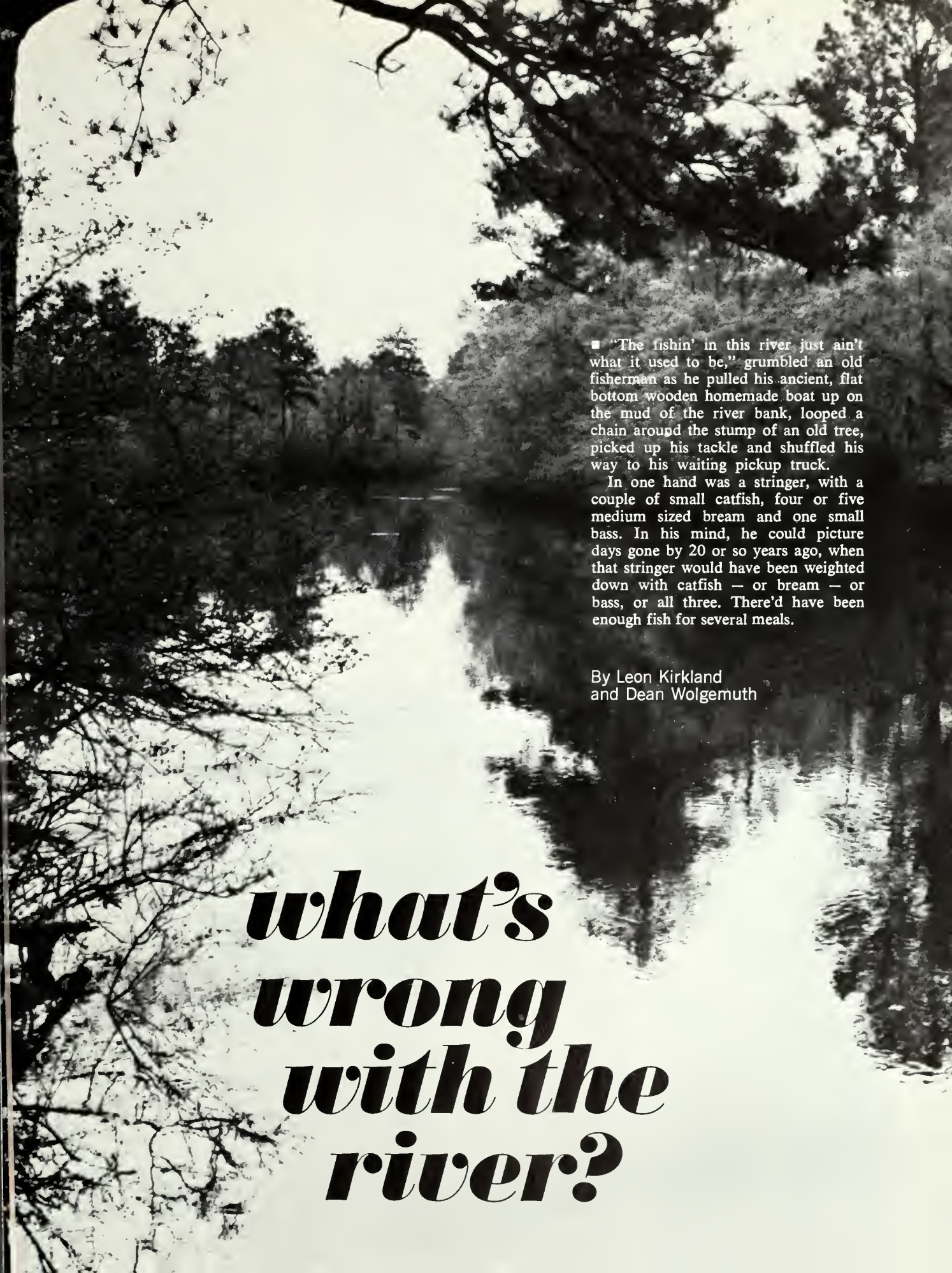
One reason for this is that the new crop of shellcrackers each year is insufficient to supply food for the bass. Then, too, they reproduce earlier in the year, and often are too large too soon for the little bass. And unless they are thinned by bass, they'll become overcrowded and stunted.

Stocked together with bluegills, 80 per cent bluegills and 20 per cent shellcrackers, they're very compatible and work together to provide good balanced fishing.

Even so, because of poor reproduction and hybridization with bluegills, a large percentage of ponds stocked with crackers within a few years will probably not produce any shellcrackers at all.

Thus, the shellcracker is an elusive fish, sought after and highly prized by many. Perhaps the fact that he can be rather elusive is one of the qualities, coupled with his larger size, that makes him the target for many anglers.

Red wigglers, meal worms, and similar baits are potent ammunition for shellcrackers. Note the vertical bars on the bluegill bream, at top.



what's wrong with the river?

■ "The fishin' in this river just ain't what it used to be," grumbled an old fisherman as he pulled his ancient, flat bottom wooden homemade boat up on the mud of the river bank, looped a chain around the stump of an old tree, picked up his tackle and shuffled his way to his waiting pickup truck.

In one hand was a stringer, with a couple of small catfish, four or five medium sized bream and one small bass. In his mind, he could picture days gone by 20 or so years ago, when that stringer would have been weighted down with catfish — or bream — or bass, or all three. There'd have been enough fish for several meals.

By Leon Kirkland
and Dean Wolgemuth

No doubt about it, the fishing isn't what it used to be in some of the state's rivers, particularly those in South Georgia. This is not something that is a secret to the State Game and Fish Commission, nor is the Commission unconcerned about the problem.

There are many secrets, however, about exactly WHAT is wrong with these rivers, that once were so productive. These secrets at present appear to be kept closely guarded by the rivers. However, the days may be numbered for some of these mysteries.

In solving a mystery, the first thing to do is realize that a mystery is there that needs solving. This alone is not enough, needing to know that there are questions seeking an answer. You have to know what the questions are before finding the answer . . . specific questions, like "Is there enough food for all the fish?" and "If not, why isn't there more food?" and "How can the Commission improve the conditions of the river?" Most of the questions are far deeper than these.

Complaints that river fishing is no longer as good as it was are valid enough. Just knowing this, however, leaves a lot to be done in determining what to do to correct the situation.

For some 35 years, intensive studies have been conducted on farm ponds. Biologists can make educated guesses about what may be wrong with a particular pond, without even seeing it. For example, in 90 per cent of the cases, the thing wrong with most ponds is that they actually have too many fish in them . . . they're overcrowded, with bream at least.

Unfortunately, there are no studies such as those on ponds to rely on when tackling problems with rivers. There has been very little research in Georgia or in any other state concerning warm water rivers. Before any corective measures can be taken, therefore, the first step is to conduct intensive studies on these waters.

Such studies are underway in South Georgia, but there are many more rivers to cross before the studies begin to jell and reveal the secrets of the rivers.

At this stage of the game, research on the rivers has produced some theories. These might be called educated guesses. These theories are very likely quite close to accurate but as yet there is no way to prove them, no scientific data to support the theories with fact.

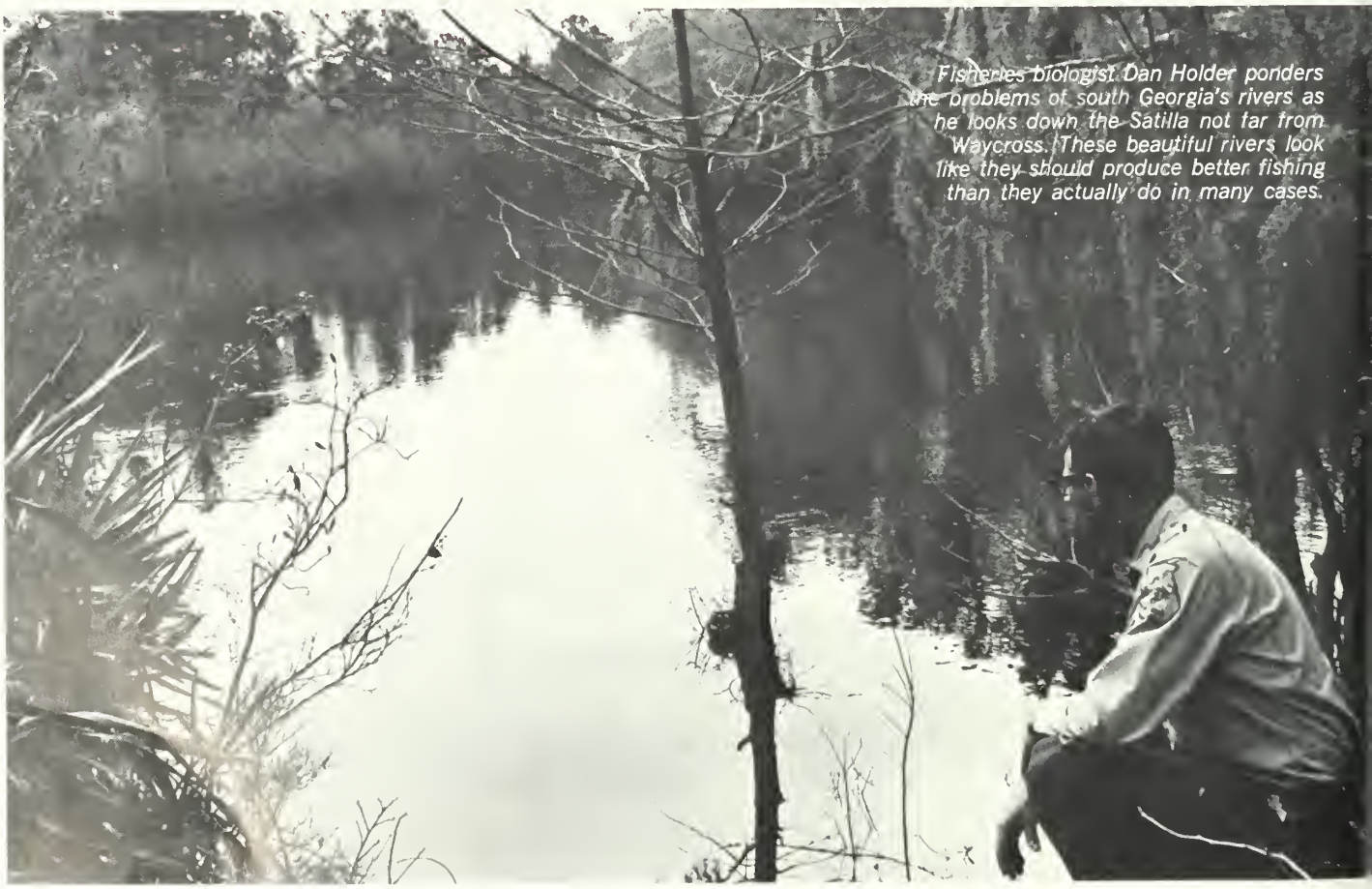
Since these theories are all there is to go on at this stage, they must be considered carefully even though perhaps with a grain of salt.

There's a little room for doubt, however, that the theories are at least partly right. For example, dry weather is the suspected culprit for a lot of the problems with the rivers. It was a long, hot, dry summer for the past two summers. Water levels were low. There was little food and cover for fish. There was a lot less water, therefore a lot less space for fish to occupy. They were crowded together. Because of this, the small fish were easy prey for the larger ones.

Just how drastic can low water conditions be? One of the best examples would have to be the Suwance River, born in the Okefenokee Swamp. While the majority of this stream is in Florida, a quite noteworthy section is in our state. And because once it reaches Florida's limestone springs it changes drastically, Georgia's Suwanee has a personality all its own.

Georgia's portion of the Suwanee, at its low point last fall, covered only about 300 surface acres of water. Yet, when the water is at normal or high levels, it may cover as much as 5,000 acres! This means the river during dry weather covered only one acre for every 16 or 17 acres it occupies at high levels! At this rate, who could expect anything other than that the river be severely damaged, as far as fish production is concerned?

Put two or three such years together, and you'll find the fish are getting mighty hungry. The river bottom itself produces little if any food. The prime source of food for such a river is the rich soil along its banks, that is normally covered a large portion of the



Fisheries biologist Dan Holder ponders the problems of south Georgia's rivers as he looks down the Satilla not far from Waycross. These beautiful rivers look like they should produce better fishing than they actually do in many cases.

Photos by the author

year by flood waters.

When a river meanders along, through wide curves, spilling out of its banks into low woodlands making swamps, and cutting across corners to leave "oxbow" lakes, the river makes its own "supermarkets," providing an abundance of food for fish. Most of the spawning of a river's population will take place in these areas. Also, most of the feeding, and therefore most of the fishing is here.

Another theory of what is wrong with the rivers has to do with rough fish populations and with commercial fishing. Back in 1955, baskets were legalized to catch catfish for commercial use. These baskets took tons and tons of catfish and in many streams reduced their numbers to only a remnant of their original population. Channel catfish of two pounds or more, were probably the major carnivorous species in the rivers. That is, they ate more of the young rough fish than any other species, and thus kept the carp, suckers, bowfin and so forth, under control. Without the catfish, these "undesirables" thrived.

The mistake was realized some five years ago, and the basket law was repealed. But the road back is long and slow. It may take two or three more years before there are enough catfish of a size capable of reducing rough fish numbers.

High water or low water are probably the two main enemies of good fishing in southern rivers. Here, the Suwanee is well out of its banks. The water normally comes just to the base of these tupelo trees. During this flooded stage, the river covers several thousand surface acres, while at low water, it covers only a few hundred acres.

Biologist Dan Holder, right, and biological aide Denny Hill of Waycross, check a trap set on the Suwanee dike, to determine how many fish go over the dike and into the river.

A third theory concerning the problems of the rivers deals with the most effective predator in the world . . . man. As man increases his population, and as he has more leisure time in which to fish, waters are more and more crowded with anglers. More pressure is put on the productivity of the rivers.

Highly fertilized farm ponds can support only 150 fishing trips per acre in a year and stay in good condition. A river can support only a part of that much pressure. When fished excessively, the ratio of one species of fish to another can be thrown badly out of balance. This is complicated in a farm pond where only two or three species exist . . . think what it can be like when there are perhaps 25 species in a mile of river!

To help ease the pressure, the Game and Fish Commission has set tighter regulations on creel limits in the Suwanee. Anglers may take only 25 sunfish and only five bass . . . no channel catfish at all, for the present. By reducing the take per day, the numbers of fish will provide fishing for a greater number of days during a year.

It is even considered possible that by providing more access to rivers, the pressure may be distributed over a larger percentage of the water. The commission plans within the next few years to build one boat ramp for every 15 miles of stream. This will make more water accessible, and distribute fishermen over more of the stream. Since the boat ramp building program began two years ago, the Commission has built 52 ramps, and the vast majority — 45 — have been on rivers.

The automatic reaction of the angler, when realizing that his fishing is declining, is to comment, "Why doesn't the Game and Fish Commission stock fish here?"

Stocking fish is a very complex operation in waters that contain some fish. Unless nature's scales are balanced very carefully, stocking may do far more damage than help.

When fishing for bream seems poor, it just might be that the problem is there are too many bream rather than not enough. If it were mistakenly assumed there were too few bream, and more were added, the problem would be compounded. Before any stocking can take place, careful studies are necessary. It must be determined which species are in short supply, and what size of fish are lacking. Then, perhaps . . . and we emphasize *perhaps*, stocking fish of the right size, *might* be of some help. Yet, this will not be known for certain, until experiments are carried out.

At any rate, putting corrective measures into practice cannot be done until exhaustive studies are made to assure which measures really are, in fact, correct.

Many anglers find the fishing good just below the dike that separates standing swamp water from the flowing water of the Suwanee. This string includes some fine bream, and one large bowfin (bottom of stringer).

Eddie Bunch of Richmond Hill shows a fine catfish he took from the Ogeechee River. Trapping of catfish is another cause of a decline in river fishing. Since fish baskets were outlawed in the rivers about five years ago, catfish are making a comeback, and overall fishing is gradually improving.

When the Suwanee River is high the fish are spread out more and difficult to catch. At these times, anglers find the best success fishing at the spillway of the dike between the Suwanee and the swamp. Suds in the water are the result of the softness of the water and high tannic acid content, not pollution.

Photos by the author

By Marvin Tye

Where the Boars Are...

Georgia hunters are becoming increasingly interested in the wild boar. These two specimens were bagged by Bo Royal and Junior Arrington in the swamps along the Altamaha River near Uvalda, Georgia, on one of the few preserves in the state where they can be legally hunted.

Dan Quillian and Ron Cannon look for boar sign in typical hog habitat. These animals prefer dense cover and feed on roots, acorns, and other vegetation.

Dan Quillian sharpens his technique with a few practice shots. Bows used for hog hunting range from 40- to 60-pounders. All are adequate for taking wild hogs, but archers are troubled by heavy brush which deflects well-aimed shots and causes them to miss.

■ The sun was just beginning to peep over the horizon as I worked my way slowly along the edge of a thick stand of mixed hardwoods deep in the swamp country of South Georgia.

I had moved only about 100 yards from the road when I spotted an unusual-looking object on the ground about 30 yards away. It was a wild boar, apparently sound asleep.

I started to shoot right away, then decided against it. I was using a bow and arrow, and even at that close range I would need an open line of flight to hit the pig. Any small twig in an arrow's path will deflect the shaft and cause an otherwise perfect shot to miss the mark.

To be sure of a killing shot, I began a slow stalk, taking pains to avoid loose stones, dead branches, or other noisemakers. As I moved closer, I could see that there were two hogs sleeping together, instead of just one. They were huddled up against each other, probably for warmth and protection from the cold March wind.

I was only inches away from a clear shot at the two boars when they leaped to their feet with a series of excited grunts. The pigs were still shielded by heavy brush. Their attention was focused on something in the trail behind me. I knew I would probably not get a better chance, so I raised my bow and fired. The arrow hit several small twigs, and was deflected before it reached the boars. The alarmed animals turned to face me as I frantically groped for another shaft. The second arrow met the same fate as the first. The boars ambled off a few yards deeper into the brush, and seemed to stare back at me in defiance. A third deflected shaft that clattered noisily off the underbrush seemed to convince them that I was up to no good. They raced off to even thicker cover.

At that moment, I noticed two other hunters approaching from the direction I had just come. These were beginners who had not yet learned how to still hunt. They were walking almost in a straight line, talking to each other, and probably expecting all sorts of game to wait around until they approached within bow range. This type hunter can sometimes help the man who stays put by driving game toward him. In this case, they had driven the game away before I could get a good shot.

The proper method of still hunting is to move into or across the wind very slowly. The successful still hunter then pauses for several seconds or even takes only a step or two at a time, then pauses for several seconds or even minutes to observe everything about him before moving on again. He knows that in thick brush he will rarely see an entire animal. Instead he will usually spot only the head, tail, ears, legs or some other portion of the body. Anything that looks out of place is worth investigating. An object that forms a straight line might turn out to be the back of an otherwise concealed boar or deer.

Two hunters who made that technique pay off that morning were 17-year-old Bo Royal of Valdosta and Junior Arrington of Franklin. Bo bagged a jet black hog that weighed an estimated 200 pounds. He used a 42-pound bow to drive a razorhead-tipped shaft through the pig's lungs. Junior used a 45-pound bow to bag his hog, which weighed a little more than 100 pounds. Jack Carter of Vidalia and Don Wilkerson of Bon Air, Alabama, also bagged boars during the hunt. One hunter bagged a 55-inch rattlesnake!

We were on a two-day hunt on land owned by Robert Mobley of Uvalda, Georgia. Mobley is in the business of raising pigs for market. In addition, he has trapped wild hogs from his land along the Altamaha River for years. By opening this land to bowhunters for a fee, Mr. Mobley has found that he can make a better profit for much less effort. He charges a flat fee of $5 per day for hunting wild hogs only. There is no guarantee that the hunter will score, and no guides are provided. To most of the bowhunters, this is the way it should be.

Judging from requests received in the Information and Education Office of the Game and Fish Commission, there are many people throughout the state who want to hunt wild boars. The number of prospective boar hunters seems to be growing each month. (The term "boar" technically applies only to male hogs, but sometimes is used to include sows as well.)

Just what is this animal that is causing all the commotion? During the 19th Century and early part of the 20th Century, much of Georgia was free range. Hogs, cattle, and other animals were allowed to roam at will over the woods

Robert Mobley, right, welcomes bowhunter Dorwin Lee to his hunting preserve in the Altamaha Swamp lands. Some 20 hunters participated in an early spring hunt there, bagging four wild hogs.

Dan points to a "gopher" hole dug by a species of tortoise. These holes are also used by rattlesnakes and should be avoided by the hunter.

Included in the bag of the bowhunters was this 55-inch rattler. A snake as large as this one carries a big dose of venom and can inflict a fatal bite upon the unwary hunter.

and countryside. These animals were rounded up or killed when the owner was ready to eat or sell them. Some hogs were identified by brands or tattoos placed in their ears. Because of this custom, the wild hog is classified as a non-game animal by the Game and Fish Commission. Hogs are considered to be the property of the landowner, and they cannot be legally hunted without his permission.

In an effort to curtail illegal poaching of deer, the Game and Fish Commission has made it illegal to hunt any non-game animal (including wild hogs) with any weapon other than shotguns with number 4 shot or smaller, .22 rimfire rifles, centerfire rifles with bore diameter .225 or smaller, all caliber pistols, muzzle loading firearms, and bows and arrows.

Some wild hogs are found on U.S. Forest Service lands and on management areas administered by the Game and Fish Commission. On some of these lands, the killing of wild hogs is allowed during deer season. During the gun deer season on these areas, high-powered rifles can legally be used to kill boars. To kill wild boars at any other time on Forest Service lands outside the game management areas, the hunter must use the weapons prescribed for hunting non-game animals.

The Game and Fish Commission encourages the shooting of wild hogs on many of their management areas, especially those in the mountains. On areas suitable primarily for deer hunting, the wild hog is looked upon by game biologists as an undesirable species. It competes with deer and turkey for food, roots up valuable plant life, and by wallowing in trout streams, makes them extremely muddy and unfit for aquatic life. Hogs are never intentionally stocked in the management areas. As in most other parts of the state, they are descendants of free-roaming pigs from the open-range days. Besides, more deer than hogs can be raised on the same area, providing more hunting for a better game species, since deer are better eating and often sport trophy racks.

A boar that has been wild for a number of years or an animal that is descendant of generations of wild hogs sometimes bears little resemblance to a barn-yard porker. The wild boar can be a lean, rangy animal with long tusks which it uses to dig roots and other vegetation from under the ground and to fight its enemies. It very closely resembles the European wild boar from which most domestic stock was probably derived when man first began to capture and tame wild animals. Some wild pigs, especially those that have only recently reverted to the wild, could easily pass for twins of domestic livestock.

Robert Mobley's Bowhunting Preserve is one of the few places in Georgia where an archer can hunt wild boar without fear of running afoul of the law. Of the 20 archers who hunted on Mobley's land during the recent weekend, four brought home bacon, at least half saw wild hogs, and several fired shots at the elusive boars, but failed to score. No one was disappointed in the hunt. Most of them said they would be back for a return bout with the boars at their first opportunity.

Most of the hunters on this outing were members of the newly organized Bowhunting Sportsmen of Georgia. Dan Quillian of Athens, President of the group, made all the arrangements for the hunt. The archers camped on land owned by Mobley near the hunting area.

One question that always comes up when discussing wild boars is whether or not the animals will charge the hunter. I have talked to many hunters who claim to have been charged by enraged boars or sows with young pigs. These charges have often been stopped at the last minute with a load of buckshot or a high-powered rifle slug.

Dan Quillian believes that a boar will not follow through on a charge if a man stands his ground. He says that the man who runs is inviting trouble. Quite a few archers have taken to the trees when charged. I believe I would be tempted to do the same rather than test out Dan's theory. Watching a domesticated hog snap a bone with his powerful teeth is argument enough, even without seeing razor sharp tusks on a wild boar.

Dangerous or not, the wild hog can provide some interesting sport for the bowhunter. If you want to try it, write to Mr. Robert Mobley, Uvalda, Georgia or call him at 912-594-3361.

For the best hunting, go during the late fall or winter. It seems that the cooler months often produce the hottest action, and the smallest number of snakes and mosquitoes.

FLY ROD ...LONG ON SPORT

Here's how to learn fly fishing

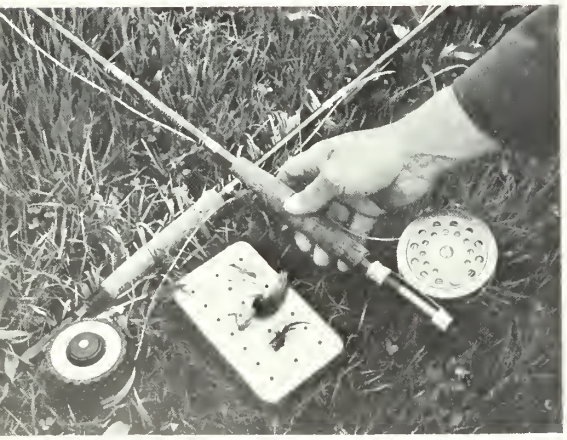
By Dean Wohlgemuth

Motorized camera catches the various positions of the fly rod during cast. (1.) Rod points toward target, angler picks up line with left hand. (2) Rod tip lifted sharply, line pulled up with left hand (3.) Rod stopped slightly beyond straight up, angler pauses before forecast, to let line straighten out behind. (4.) Rod snaps forward, getting the line moving in the right direction. (5.) Rod is again pointed toward target, and line is released from left hand just before end of cast, to let the line "shoot" through the rod guides.

The day my fly rod came back from the factory with the broken tip replaced, I set out to prove a point. "I'm going to give you a few lessons on how to catch a lot of bass," I boasted to my host, Tim Harris.

With that kind of audacity, it's a wonder I even got an invitation from Tim. I had become a regular visitor to his two-acre bass pond behind his house, frequently availing myself of his hospitality that summer, during the last couple hours of daylight after work.

Tim and I would work the pond from the shore, tossing out a variety of lures, and usually we were good for two or three bass apiece. We caught nothing big. I don't recall a one over a couple pounds or so. But it was a handy pond and staved off the urge for a full-blown excursion to more distant waters for bigger game. These little outings did wonders for my disposition.



Tackle found in a flycaster's kit is different from that of other anglers. The two types of fly reels shown are single action (right) and automatic. A spring in the auto pulls the line back onto the reel when the trip is released. Flies or popping bugs are light weight, since the weight of the line, not the lure, makes the cast.

Anyway, back to the case in point. The rod was ready and I was dying to get it back into action. A lot of bass were breaking water on that pond about sundown every time I fished it, as is normal in bass water. Even so, topwater plugs had yielded no better results than the usual fare of shallow-runners we presesented.

I figured a bass bug just might be the medicine we needed.

Tim didn't appear convinced or impressed as I came out, adorned in waders, landing net and other paraphernalia peculiar to those who use the long, thin rod. He took his spinning rig and began working his way around the shoreline, determined to call my bluff.

I picked the shallowest shoreline, closest to the house, and waded out cautiously, casting ahead of me. In two hours, Tim had been all the way around the pond, and had two bass. I had moved less than 50 feet, gradually working toward deeper water, until I was waist deep.

"How'd you do?" he queried.

"They're striking short," I complained smugly. "Or else I'm badly out of practice. I've caught 12 bass, and missed about 20 more strikes." I held up the three I had kept.

To add insult to injury, and drive the point home, I went back the next evening and in an hour I caught 10 more while he went fishless.

Sure, I was reckless in my boast that I'd show him something. It wasn't altogether chance, however, since I'd seen other bass waters produce similar results with a bass bug when plugs had scored much less.

What tops all this off is that you'll get much more action out of a bass, particularly the small ones, when you use a fly rod. A big rascal will keep you as busy as you care to be!

Many an angler looks upon the fly rod as a tool for those who fish the mountain streams for trout. If you're one of those, you're missing a lot of fine sport! That willowy wand is a top-notch producer of fishing for panfish, bass . . . in fact just about any good sportfish species. Flyrodding in saltwater is really becoming big these days.

You don't have to go far to find a good place to flyfish. The closest fishing water to your home will most likely do.

Bluegills very often go crazy over a fly or small cork bodied bug, or perhaps a sponge rubber cricket, giving you both more fish and more action than you can get with bait fishing. (You can use a worm on a flyrod.) No one will argue that a bluegill puts up a real scrap for his size, but he really seems to "grow up" fast when he's on the other end of a light fly rod.

Tackle needn't be expensive. With fiberglass rods what they are today, an adequate panfish or bass rod can be bought for less than $15. You can get away with the cheapest of all types of reels, since this portion of your equipment is merely used for line storage, not casting. Flies are cheaper than plugs, and it's not too difficult to tie your own.

More important by far than the reel is your line . . . and it could well cost you more, particularly if you favor tapers. A level line, however, is only a few dollars, and is best to start with. It's quite sufficient for bream and good enough for the bulk of fishing for just about all species.

Don't be lured into scrimping on your line, however, since it ranks equally in importance with the rod. It's chief purpose is to produce the weight for the cast, unlike other kinds of casting where the lure or bait produce the casting weight. Further, fly line has another special purpose. Depending on the kind of fishing you're doing, lines

are made to either float or sink. For dry flies (those that float on the surface) and cork bodied bugs, you'll need a floating line. For wet flies, nymphs, streamers, spinners-and-flies and so forth, a sinking line is a must. You will encounter no difficulty in finding floating lines in all tackle shops, but for some odd reason few dealers put sinking lines out on the counter. Many don't even carry them. If you decide to try a sinking line, my guess is that you'll have to order it.

Not only are single-action reels generally least expensive and adequate, they're preferred by a majority of experts. Automatics are fine, however, and perhaps easier for a beginner to learn with. Many top fly rodders prefer the convenience of the auto. I have both, and use an auto most of the time.

Learning to cast a fly line awes many newcomers. Though graceful and seemingly easy when performed by an expert, the fly cast is a stumbling block to the novice.

Timing is highly important. Not long ago, I read an article claiming that wrist action should not be used in flycasting. Perhaps I'll draw some argument here, but I believe the wrist is highly important to good flycasting. I'm convinced that experts in all fields of sports (except perhaps girlwatching, where the neck must be limber, and swivel easily . . . so I'm told), the man who can demonstrate good use of the wrist is the man who will excel.

Before trying to cast, be sure your equipment matches. Basically, this means getting the right weight line for your rod. Most good rods will be marked with the size line you should use.

However, all but the more experienced anglers would be better off using the next size heavier line, than what is recommended. For example, a rod rated for Number 7 (old rating Size C) line, should actually use Number 8 (Size B) line. The heavier line is much easier to cast, and easier to "feel". You're not proving a point as to your ability to use the smaller line, and you'll receive no medals for it. You WILL cast better, therefore catch more fish, if you use the bigger stuff. Is the bigger line noisier on the water? Not if you can present a better cast with it than you can with the lighter line.

The strength of the line is unimportant, but the weight is. The strength is regulated by the leader. And you MUST use a leader, if you want the fish to think your lure is a meal. The length of leader to use will be determined by the amount of need in fooling the fish, and by your ability as a flycaster. Longer leaders are hard to cast, and of no value if not cast properly. You're better off laying a six-foot leader out straight, than piling up a nine-foot leader within a few feet of the end of the flyline.

Generally speaking, a 7½ foot leader is a good length for fish that are wary, in clear water, but to start, five or six feet is much easier to use. Some anglers

At start of cast, angler picks up line in left hand. By pulling on the line at the same time he lifts his rod, he can get the line off the water and moving more quickly and quietly.

use nine feet, and a few expert go as high as 14 feet for certain conditions, but to me this is ridiculous except in the most extreme circumstances and then only in the hands of real pros.

Anytime you put on a leader that is no longer, or even as long as your rod, you're putting a strain on your casting ability, and therefore, your cast. The average fly rod is 8 or 8½ feet, therefore my choice is 7½ feet for the leader. Yet, for bream, and a large percentage of bass fishing, six feet of leader is plenty. Like the line, leader is available in both level and taper. The taper is used when you need very low visibility of the leader, and is used primarily on such fishing as for trout in the summer when streams are extra clear. Level leader is fine for bass and panfish. Strength may vary from four to eight pounds for bass, depending on how big they're running, and from four on down for bream, trout, etc. Four is a good choice to start with.

When choosing lures, don't forget that the weight of the line makes the cast, not the fly. A big, heavy bug is very hard to cast, because its size creates a wind drag . . . it pulls more air with it than does a small fly or bug. More expertise is required for the big ones.

The best way to learn flycasting is to leave off the lure altogether, using only a short (about five feet long) leader. Instead of going to the water, take a dry-run in the back yard.

To begin casting, pull off enough line to extend perhaps 12 feet or so beyond the end of the rod and lay it out in front of you. Hold the rod in your right hand, nearly parallel to the ground, but with the tip a foot or so higher than the butt.

Imagine an arc over your head, from front to back, and number it like a clock. Straight up is 12 o'clock; the rod parallel to the ground straight ahead is 9 o'clock, and of course, straight back and parallel to the ground would be 3 o'clock.

The starting position, then, would be about 10 o'clock. Take the line, between the first guide and the reel, in your left hand. As you start the rod back, pull in perhaps a foot of the line with your left hand, thus picking up the line smartly. Start the motion slowly and smoothly to lift the line quietly off the water, but accelerate the motion as you pick up the line.

Stop the rod abruptly just barely past straight up, at about the 1 o'clock position. At this point, don't forget to take a brief pause, to allow the line enough time to straighten out behind you. This is highly important. If properly matched to the rod, you should barely be able to feel a gentle tug as the line reaches its limit. At this exact instant, snap the rod forward with plenty of wrist. If you start forward too soon, you'll hear a "POP!", like a whip cracking. This kind of casting is expensive . . . you'll have to replace a snapped-off or frayed fly.

Stop your forecast smartly at about the 10:30 position, and release your hold on the line. If properly executed, the line should straighten out beyond the line. In dry fly or bug fishing, the line should straighten out in the air, just above the water surface, and settle gently onto the water.

If you note, as the line straightens out in front of you, that the cast is not long enough to reach your target, don't wait for the line to touch the water, but immediately start another cast. This time, however, instead of taking in the foot or so of line, pull as much line off the reel as you can quickly, while making the backcast. It may take several more casts to work out enough line, before you're satisfied with the length of the cast. This is called "false casting."

Don't get the notion that you must qualify for the Olympic team in distance, to be a good flycaster. Accuracy — putting the fly where you want it — is far more important than distance in flyfishing. Delicacy, finesse, or whatever you want to call it, is likewise important. If you can present your fly gently and quietly, and can wade or scull your boat quietly to get you into position for fishing, you won't need great, long casts.

If you do find you need to lengthen your casts to reach bigger, spookier fish such as big bass on ponds or lakes, then you'll need to get a good tapered fly line.

There are two types of taper, regular and weight forward. Other names, including bug taper, rocket taper, shooting taper . . . all these are another way of saying "weight-forward." The distinction is this . . . a "level" line is the same diameter from start to finish. A taper has a small diameter on both ends, but is much thicker in between. A weight-forward taper is a line that quickly tapers to the largest diameter, then goes back to the smaller diameter much sooner, with much of the tail end of the line the small diameter.

A tapered leader, on the other hand, is thickest on one end, and gradually tapers down to the smallest diameter at the other end. The fly, of course, is tied to the smallest end and the thickest end is attached to the fly line.

There's really no mystery about the accessories of a fly fisherman. If he wades, he can use boots or chest-high waders, or the boat that a baitcaster might use. If wading, he needs a short handled net instead of the long handled boat net. Since a fly rod is limber, and the leader very light test, the flyrodder always lands his fish with a net (or by hand), regardless of the fish's size, rather than put the strain on the rod by lifting the fish out, cane-pole style. Of course, glass rods of today are not nearly as fragile as were yesterday's bamboos, nonetheless there's no point in risking the very real likelihood of pulling the hook out of the tender mouth and losing the fish.

The left hand stays on the line through the back cast, and is held until the rod tip is well forward. On a double haul cast, the left hand relaxes the line on the backcast then pulls it forward at the start of the forecast.

Unless you have a lot of slack line out, it very likely won't be necessary to set the hook. Yet it pays to tighten the line smartly, as quickly as possible, both by pulling in line by hand and lifting the rod tip quickly, if gently, to make sure the hook is set.

As in playing fish by all methods, you must keep the line tight. With a single action reel, some anglers take up slack with the reel. You DO NOT do this with an automatic. You pull the line in by hand. And don't horse the fish, play him against the rod. Keeping the line tight does not mean pulling hard on the line. Let the fish play himself out. Here's the chief purpose of fly fishing . . . letting the fish fight as much as possible, for maximum sport.

When you gain experience and ability, you will want to try some of the more advanced techniques such as the double haul cast, and roll cast.

For the double haul, pull in the line on the back cast as previously described, letting it go out at the end of the back cast. Then, when starting the forecast, once again pull in line, turning it loose at the end of the forecast, so that it shoots through the guides. This is done only when a great deal of line is already out. Accomplished anglers can take more line off the reel between "hauls," in midcast.

Fly casting requires as much space behind the angler as it does straight ahead for the cast. Sometimes, you'll find yourself in a tight spot with brush close behind you, preventing you from casting in the desired direction. This calls for the roll cast, a technique not nearly as difficult as imagined.

Instead of picking the line up off the water and making a backcast, merely lift the rod tip slowly to the 1 o'clock position, leaving the line laying on the water, and creating a long curve slightly behind the rod. Then, snap the rod forward. The line will "roll over," seemingly unrolling on the water, and lay out straight in front of you. This cast is also very helpful when there is a strong breeze to your back.

To start fly rod fishing, I'd suggest the use of small cork bugs or sponge rubber bugs. They float easy, and are highly effective. Even small bream-sized bugs are very good for bass fishing.

Wet flies and streamers might be a good follow-up. You won't want to wait long before trying dry flies. These must be presented quite delicately, so be sure your casting technique is up to them. The long hackles are what keep the fly afloat, but no fly will long stay afloat without some dryfly oil. Even so, a few occasional false casts help to dry the fly out, and keep it floating longer. When all else fails to keep it floating, change to a new fly. A finger nail clipper is a handy item for clipping the line.

You'll want a good fly box that will fit into a pocket easily. You may want a creel to keep your fish in when wading, if they are few in number or small enough. A stringer hanging from your belt can get tangled up in your legs, and doesn't always keep the fish in the water well enough. Dress your line after each trip to assure its floating ability.

Just don't forget to get in all the practice you can before going fishing, and frequent practice in between trips, in your back yard, will polish your technique.

If a neighbor begins making cracks like "Hey Joe, how're they biting today?" Simply put him down by commenting, "Oh, I get a sucker now and then!" Maybe he'll get the point!

Notice how the line slips out through the rod guides at the instant the flycaster releases the line completely. Timing is important in this and all phases of flycasting, but it comes only through practice.

Watch that rod tip on the backcast! Don't let it get too low behind you. If the tip gets this low, you'll get the line fouled, either on the rod tip or on brush or it will hit the water, spoiling your forecast.

Sportsmen Speak...

LITTLE RIVER DRAINAGE

The Soil Conservation Corps is at it again.

Making **corpses** out of marsh orientated wildlife and plants, not to mention that they are destroying nature's reservoirs when they drain marsh and swamp.

Before the Little River in Cherokee County was dredged it and many acres of adjacent marsh and swamp land was a veritable haven for ducks, frogs, muskrat, swamp rabbit and more varieties of birds than you would believe. The ecology was unique; water, clean and pure, was being stored as the Good Lord had intended it to be. This was a real pretty area.

Now, just three years after dredging, all of this is gone. **All** of the fish are gone, no cover or food, no ducks, and not many of the birds remaining. Naturally, the muskrats and water vegetation are gone. This is now a **nothing** place.

The river banks were cleared and have grown up in weeds too thick to penetrate. The river itself is confined to a ditch eight feet deep, so steep at the sides that an elderly person or child couldn't get out of it. It takes all of my skill and luck.

Only one farmer took advantage of this newly available land; and this project cost several hundred thousand dollars.

It's no wonder taxes are high and going higher.

Somewhere along the way, dams will have to be built to hold back the flood waters and to create reservoirs that nature had planned for us. This will be more money and taxes, and an even larger empire for the Bureaucrats in Washington.

This natural habitat is gone forever, never to be replaced. I feel sad about the yet to be born generations who will inherit only the things that man has changed for his own personal and shortsighted reasons.

I believe that this river dredging is unthinking foolishness done mostly to create bigger empires.

James P. Cheves, Jr.
5585 Whitner Drive, N.W.
Atlanta, Georgia 30327

PULP MILL POLLUTION?

After reading Mr. Thomas Eck's letter in the February issue of **Georgia Game and Fish,** I felt obligated to send my apologies to him, to the paper industry, and to your fine magazine. I knew at the time of the publication of my letter in the July, 1968, issue that I had made a mistake, but there was little I could do at the time but to hope that the mistake would go unnoticed.

I didn't want to say that there were pulp wood mills on the Ogeechee River. What I should have said was that there are textile mills on the Ogeechee River, a fact that you mentioned in your magazine in the February issue. Regardless of whether or not there are any kind of mills on the Ogeechee River the fact remains that the once fabulous and nationally famous redbreast fishing is all but completely gone. Ask any oldtimer on the river and the answer will invariably be the same.

Another ominous sign that pollution may be the cause, is the foam on top of the water. Several old-timers told me that this foam was not present in years past. One river rat, who has been around the Ogeechee River for close to fifty years, even says that the fish are starting to do strange things. For example, he pointed out that shad by the scores are running up on the shore and jumping out of the water as if being chased. He noted that he had never seen one do that before.

True, the Ogeechee River might not be polluted under the standards set up by the State Water Quality Control Board. Nevertheless, it is known that certain fish survive well only in clean, chemically pure water. Isn't it possible that only the small amount of wastes emitted from these textile mills could be killing these fish?

One final note: tell Mr. Eck that if he wants to find out what a fine job the paper industry is doing in cleaning up pollution that all he need do is stick his head out of the window of his car next time he passes a pulp mill and take a deep breath of the wonderfully "clean air" being emitted. That is, of course, if he doesn't get blinded first by the smoke and is unable to drive.

Sincerely,
Robert Lee Rone
Athens, Georgia

Biologists of the State Water Quality Control Board say pollution detection devices they have placed in the Ogeechee River one mile above and two miles below the textile mill outlets indicate that there is no significant difference in the aquatic life at those two locations. Many South Georgia waters contain natural foam at rapids or shoals caused by tannic acid, for example, which causes the dark coloration of water in the Ogeechee and the Okefenokee Swamp, and is secreted from cypress trees that are common there. Starches discharged from textile mills on the Ogeechee have encouraged the growth of a green "slime" called sphaerotilus which sometimes accumulates on fishermen's lines or nets, but causes little harm in moderation. Biologists of the State Game and Fish Commission have never observed shad jumping out on the banks of the Ogeechee, and they say that while redbreast fishing may be presently in a slump, it is far from gone. (For more on river problems, see "What's Wrong With The River?" on page two of this issue.)

CUMBERLAND ISLAND

As a subscriber to **Game and Fish,** let me say I have thoroughly enjoyed the magazine this past year, and I have really gotten my "dollars worth" from it.

I try to stay abreast of developments in my state that will affect me and my fellow sportsmen and my future hunting partner, my four-year-old son.

I have watched and read with interest all the "hullaballoo" concerning our precious marshes along Georgia's coastline. Director George T. Bagby is to be congratulated for his courageous stand against those who would ruin our precious resources in the name of "progress."

What prompted me to write this letter is the story in last week's **Journal-Constitution Magazine** on Cumberland Island. I hope Cumberland or any other of the islands along the coast won't go the way Jekyll Island did. Some people may like motels, hot dog stands, and beer cans all over the beach, but I for one, don't!

When I was a small boy, I can remember taking the "Neptune" from St. Simons to Jekyll Island (that's right, there weren't any bridges) and walking from the boat landing to the east side of the island just to swim! How clean and beautiful the beaches were then and how clear the water was.

I for one think the islands that come up for sale should be investigated by the state of Georgia and if possible, be bought as Jekyll was. The only difference is, the islands should be left in their natural state, to be used as recreation areas and game refuges only. No motels, no lodges, no lights, **no nothing!** Let the people who want to "get away from it all" for a few days have this opportunity to do this.

I realize that Jekyll has camping areas for those who want to use them, but is this really camping? I hope not. With all the gear and campers people use now, they might just as well have stayed home.

David E. Tyne
Jesup, Georgia

SAVE MARSHLANDS

It has been brought to my attention

A SILVER LINING? *Continued*

A companion House resolution, H. R. 74-184, which merely called on the Attorney General to make a legal survey of marshland ownership on the coast, was never reported from the House committee (Natural Resources) where it lies buried today. Other measures to curb the dangerous power of the State Mineral Leasing Commission failed to be considered.

Equally disappointing was the failure of the General Assembly to provide an adequate budget increase to meet the demands placed on the State Game and Fish Commission during the coming year. The increase of only $50,971 was $426,187 below the recommendation of the Governor, and $1,233,158 below the amount requested by the Commission. Because of the budget cuts, the Commission will not be able to build two proposed new public fishing lakes, add on 10 additional wildlife rangers, including a separate saltwater patrol, or construct three badly needed district law enforcement offices to replace dilapidated facilities in Thomson, Gainesville, and Macon.

In the face of a tighter state budget from general tax funds, it is clear that additional revenue from hunting and fishing license fees will have to be obtained by the State Game and Fish Commission in the near future to meet increasing recreational needs of more and more Georgians. In addition to a small increase in the price of hunting and fishing licenses, obvious places to obtain the funds include a special deer stamp and trout stamp. These two programs of the State Game and Fish Commission require heavier expenditures that would gladly be borne by most trout fishermen and deer hunters.

All in all, this year's session of the General Assembly could have been worse, from the conservation standpoint. It could have been better. J.M.

that the State of Georgia is considering leasing twenty-five thousand acres of valuable marshland to the Kerr-McGee Corporation for phosphate mining. In my opinion, and my friends agree, this would be a grave mistake with far reaching results. It would not only be taking away from your State's natural beauty but also destroying much needed wintering grounds for migrating waterfowl.

I sincerely hope that you gentlemen will consider all aspects before deciding the future of this valuable marshland.

It has long been a policy of the United States to be a friend and a neighbor to Canada, we have always worked together for the good of all; however, if you decide to destroy this marsh it will do harm to the waterfowl of both countries, and will bring concerned reaction by many Canadian and American conservationists and sportsmen.

R. J. Cough
Fredericton, New Brunswick
Canada

"JACKFISH" OMITTED?

After reading the rules and regulations for the "Big Fish Contest" in the March '69 issue of Georgia **Game and Fish**, I must show my disappointment in the fish entry list. The "jack" or Eastern Pickerel was omitted. I don't know who is responsible for making the entry list but whoever it is apparently wasn't looking for the most "gamiest" of fishes. The catfish is listed although a lot of people consider it a trash or rough fish. True, the channel cat will give you a fight for your money, but no more so than a jack, pound for pound. And I think the idea of including crappie in the list is a joke. "Fighting" a crappie is like wrestling an old wet boot sock out of the water. These comments weren't really made to low rate some of these fish but the very fact that the "jack" is a true game fish and the fact that the world record jack was caught right here in Georgia should put him on the entry list.

I've caught my share of most of the fish in Georgia and on a light whippy spinning rod and artificial lure, pound for pound I'll take all the jack I can. (Well, 15 anyway.)

Victor J. Simmons
Macon, Georgia

DOVE SEASON

I would like to make a suggestion on your dove seasons, also, give the reason for it.

The first dove season is too early. The old birds still have young in the nest, and some are hatching. This season takes the parent birds away from the young and many die in the nest of starvation because Mother and Father birds have been shot and killed.

I think we should have one season for doves beginning the first of December until the last of January. That would give larger birds, leave no little birds in nests, and give more birds for pairing off and raising another year.

I would appreciate anything that can be done toward this matter.

Vernon J. Sikes
Collins, Georgia

For information on Georgia's complicated dove season issue, see articles on the subject in Game and Fish **in the issues of Dec. '66, Sept. '67, and Dec. '68.**

COHUTTA MOUNTAINS

First let me say that I have enjoyed your fine magazine since its inception. I am always glad to see your articles on the streams and forests in my native North Georgia mountains.

I especially enjoyed the article on the Cohutta Area. Having lived in Chatsworth a few years ago, I am only too familiar with the notorious clan names of poachers in this fine area. I own a four-wheel drive vehicle and my wife and I and my two sons roam the most remote areas of the Cohutta range.

A few weeks ago, for the first time in years, I was able to show my sons a beautiful doe in the forest. As I watched her bound away, I felt a debt of gratitude for the fine job the rangers are doing in restocking this area.

I feel their greatest danger (and I say this facetiously) is from the horde of trail bikes now combing the area. Last spring, while fishing high up on the Conasauga River, I was scared out of my wits by a roaring noise coming down the side of the mountain. A young man stopped, talked a while, and presented me with the calling card of his employer, an Ellijay taxidermist. I enjoyed his youthful love for the mountains and his carefree spirit. I left the mountains that day feeling glad that I had met him.

Let me close by saying for fishing and/or camping "Come to Cohutta," and God willing, in a few years I can include fishing, camping, and hunting.

Ed Whitfield

In Memoriam

Mrs. Jerolene B. Stanton, a secretary at the State Game and Fish Commission's Walton Fish Hatchery at Rutledge since October, 1966, died March 6, 1969.

TIDE TABLE

MAY-JUNE 1969

GEORGIA COASTAL WATERS

HOW TO USE THESE TABLES

The calculations are for the outer bar. Find the reading for the desired tide. In the table below find the number of minutes to add to correct for the place you are going to fish or swim. The outer bar calculation, plus this correction, gives the correct reading for the point desired.

Adjust For Daylight Saving Time By Adding One Hour

CORRECTION TABLE

The times given are for Savannah River entrance (Tybee).

	Hrs.	Min.
Savannah High	0	44
Savannah (Low)	*	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabaw Sound	0	05
Vernon View	0	35
Coffee Bluff	0	55
Ogeechee River Bridge	3	50
St. Catherine Sound	0	25
Sapelo Sound	0	00
Brunswick Bar	0	00
St. Simon Pier	0	25
Frederica Bridge	0	50
McKay Bridge	0	50
Brunswick East River	0	50
Turtle River Bridge	0	55
Turtle River, Crispen Is.	1	10
Humpback Bridge	1	00
Jekyll Point	0	30
Jointer Island		55
Hampton River Village Creek Ent.	0	20
Village Fishing Camp	0	45
Taylor Fishing Camp	1	00
Altamaha Fishing Park, Everett, Ga.	4	00
Two-Way Fishing Camp, S. Altamaha	2	00

	Full Moon	Last Quarter	New Moon	First Quarter
MAY	2	8	16	24
JUNE	29	7	14	23

MAY, 1969

Day	HIGH WATER A.M.	HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Thurs.	7:00	7.1	7:24	8.3	1:12	1:12
2. Fri.	7:42	7.1	8:12	8.4	2:00	2:00
3. Sat.	8:30	7.0	9:00	8.3	2:48	2:42
4. Sun.	9:18	6.8	9:48	8.1	3:36	3:36
5. Mon.	10:06	6.5	10:48	7.7	4:24	4:24
6. Tues.	11:12	6.3	11:48	7.3	5:24	5:24
7. Wed.			12:18	6.1	6:24	6:30
8. Thurs.	1:00	7.0	1:24	6.2	7:30	7:42
9. Fri.	2:06	6.8	2:36	6.3	8:30	8:54
10. Sat.	3:12	6.7	3:42	6.7	9:30	10:00
11. Sun.	4:18	6.6	4:42	7.1	10:24	11:00
12. Mon.	5:12	6.7	5:36	7.5	11:12	11:48
13. Tues.	6:00	6.7	6:18	7.7		12:00
14. Wed.	6:42	6.7	7:00	7.9	12:36	12:42
15. Thurs.	7:24	6.5	7:36	7.9	1:18	1:24
16. Fri.	8:00	6.4	8:12	7.8	2:00	2:00
17. Sat.	8:30	6.1	8:48	7.6	2:42	2:42
18. Sun.	9:06	5.9	9:24	7.3	3.18	3:18
19. Mon.	9:42	5.7	10:00	7.1	4:00	4:00
20. Tues.	10:24	5.5	10:42	6.8	4:36	4:36
21. Wed.	11:06	5.4	11:24	6.6	5:18	5:24
22. Thurs.	11:54	5.4			6:00	6:12
23. Fri.	12:12	6.4	12:48	5.5	6:48	7:12
24. Sat.	1:06	6.2	1:42	5.7	7:42	8:12
25. Sun.	1:54	6.2	2:42	6.1	8:36	9:12
26. Mon.	2:54	6.2	3:36	6.6	9:30	10:12
27. Tues.	3:48	6.3	4:36	7.1	10:18	11:00
28. Wed.	4:48	6.4	5:30	7.6	11.06	11:54
29. Thurs.	5:42	6.6	6:18	8.1	11:54	
30. Fri.	6:30	6.8	7:06	8.4	12:48	12:42
31. Sat.	7:24	6.9	7:54	8.6	1:36	1:36

JUNE, 1969

Day	HIGH WATER A.M.	HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Sun.	8:12	6.9	8:48	8.5	2:30	2:30
2. Mon.	9:06	6.8	9:42	8.2	3:24	3:24
3. Tues.	10:06	6.7	10:42	7.9	4:18	4:18
4. Wed.	11:06	6.5	11:42	7.5	5:12	5:18
5. Thurs.			12:06	6.5	6:06	6:18
6. Fri.	12:42	7.1	1:12	6.5	7:06	7:24
7. Sat.	1:42	6.7	2:12	6.7	8:06	8:36
8. Sun.	2:42	6.5	3:18	6.8	9:00	9:36
9. Mon.	3:42	6.2	4:12	7.0	9:54	10:30
10. Tues.	4:36	6.1	5:06	7.2	10:42	11:18
11. Wed.	5:30	6.0	5:54	7.4	11:24	
12. Thurs.	6:18	6.0	6:36	7.5	12:06	12:06
13. Fri.	6:54	6.0	7:12	7.6	12:54	12:54
14. Sat.	7:36	5.9	7:48	7.5	1:36	1:36
15. Sun.	8:06	5.8	8:24	7.4	2:18	2:12
16. Mon.	8:42	5.7	9:00	7.3	3:00	2:54
17. Tues.	9:18	5.6	9:36	7.1	3:36	3:36
18. Wed.	10:00	5.6	10:12	6.9	4:12	4:12
19. Thurs.	10:36	5.6	10:54	6.7	4:48	4:54
20. Fri.	11:24	5.7	11:36	6.5	5:30	4:42
21. Sat.			12:06	5.9	6:12	6:30
22. Sun.	12:24	6.4	1:00	6.1	6:54	7:30
23. Mon.	1:12	6.2	1:54	6.4	7:48	8:30
24. Tues.	2:06	6.1	2:54	6.8	8:42	9:36
25. Wed.	3:06	6.1	4:00	7.2	9:36	10:30
26. Thurs.	4:06	6.1	5:00	7.6	10:30	11:30
27. Fri.	5:12	6.3	6:00	8.0	11:30	
28. Sat.	6:12	6.5	6:54	8.4	12:24	12:24
29. Sun.	7:12	6.7	7:48	8.5	1:24	1:24
30. Mon.	8:06	6.9	8:42	8.5	2:18	2:18

To report violations or if you need assistance in the Coastal Area—Call—State Game & Fish Commission, Brunswick, Georgia, P. O. Box 1097, Phone 265-1552, Savannah 233-2383, Richmond Hill 756-3679

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Save The Alcovy And Lake Jackson

Mill Creek in Cherokee County north of Atlanta, channeled by the U. S. Soil Conservation Service in the Little River Watershed Project above Lake Allatoona.

More than 80,000 fishermen and property owners on the Alcovy and Lake Jackson are mad.

Why?

Plans initiated, designed, and financed by the U. S. Soil Conservation Service, an agency of the Federal Department of Agriculture, are being pushed through Congress to turn the beautiful Alcovy River above Jackson into a muddy drainage ditch.

The inevitable effect of channeling 80 miles of the Alcovy River and two of its tributaries with bulldozers and draglines will be to virtually destroy fishing in the

Continued on page 15

ON THE COVER: A scene to drive any devoted bass fisherman delirious, thinking about big bass stacked up like underwater cordwood, waiting to be harvested from his favorite fishin' hole. Sorry fellows, these beauties are off limits at the Millen National Fish Hatchery of the U. S. Bureau of Sport Fisheries and Wildlife. But you can see them any day of the week in the magnificent hatchery aquarium just a few miles north of Millen and Magnolia Springs State Park on U. S. 25. For more on bass that you can catch, see "Hartwell is Hot!" by Marvin Tye on page seven. Color Photo by Ted Borg.

ON THE BACK COVER: The mischievous chipmunk, Georgia's common striped ground squirrel. Except for the ground hog, he is the only truly hibernating animal in the state, although bears take short naps in the winter in North Georgia. Chipmunks are prolific gatherers of all the nuts and fruits eaten by tree squirrels, storing them in the ground or in hollow trees. They rear their young in the ground in the spring. Most common in North Georgia, the cute little fellows frequently make pests of themselves around houses, digging up flower beds or stopping up drains with nuts. Chipmunks are seldom longer than five or six inches, with a tail of about four inches. Color photo by Leonard Lee Rue, III.

PHOTO CREDITS: Ted Borg: 1 f. c., 4, t. & c. 5, 6, 10, 11, 12, 13, 15; Phillips L. Carr: 2, 3; Charles Fincher: 7, b. 9; Glenn McBay: t. 14; Jim Morrison: b. 14; Marvin Tye: 8, a. 9; Herb Wyatt: b. 5.

OGEECHEE MYSTERY

By Phillips L. Carr

"Phil!"

Mitzi's shriek was clipped off by swirling water as I plunged backwards into the river. My red socks arched over my head as I drove my legs downward. I lunged through the surface at the boat, yanked the magneto lever off and grinned at my wife.

"Are you all right?" she asked, her face taut with fear. She was leaning from the middle of the boat with the tip of my spinning rod clutched to her blouse.

"Yeah, sure, I'm fine. Just a little wet."

I wasn't fine. The log I was standing on was no thicker than my arm and springing up and down in the current. The river was tugging at my legs and I was clinging to the boat to keep my balance.

"You're not hurt?" she asked again.

"No, I'm okay, now get up into your end of the boat so I can get in."

"Just a minute, I have to get this hook out of my blouse."

"Never mind the hooks, get back in your end of the boat."

"Are you sure you're all right?"

"Yes, now, please, get up in the front of the boat."

"I can't get these hooks out."

"Forget the hooks! Get up in your end of the boat! I can't get in until you do!"

"Oh."

Giving the spinner a vicious yank, Mitzi broke the hooks free, leaving them in her blouse. She crawled to the other end of the boat and sat, her arms stiffly braced and her hands clenched so tightly on the gunwales that her knuckles were white under the tan skin. I climbed in. The fiberglass shell spun down toward a tree lying across

the current. I yanked the motor alive and guided the skiff upstream around another fallen tree to quiet water. Then, we anchored and I poured the river out of my shoes.

This happened on the Ogeechee River in Bulloch County, Georgia. Although it's a favorite fishing place, the Ogeechee has a reputation for being dangerous. My accident came because I'd failed to read the water. A young cypress had fallen into the current and was lying beneath the surface, its roots hidden by brush. I didn't see it and our propeller hit it. Throwing the motor left and right threw me off balance. If I'd scrambled for something to hold onto, I might have upset the boat. So, I got out. Mitzi had heard about the river killing people and thought she'd lost a husband.

"Take me home!"

"What?" I said, amazed that she should be so upset.

"I said, 'Take me home,' I don't want to have anything more to do with this river. It's creepy and full of snakes. Look at the big brown one there in the bush. And all that gray stuff hanging from the trees makes it spooky."

"But, Mitzi, we've just started. That's only a harmless water snake, and that gray stuff is Spanish moss."

"I don't care. You haven't caught any fish, and I don't think there are any fish in this river, just a lot of snakes."

She was right. I hadn't caught any fish in two or three trips, and the Ogeechee looks different from the Pennsylvania trout streams Mitzi's used to. The bush she pointed to was a wild grape vine. These and cat-briar tangles are favorite places for water snakes. Fan shaped palmettos grow on the black mud banks. Bulbous rooted cypress trees sweep the sky, their branches hung with Spanish moss. In the swamps where red oaks and maples grow, you can hear yellow billed cuckoos cluck loudly. It looks and sounds like a prehistoric jungle.

The tall cypress trees draped with ghostly Spanish moss add an air of mystery to the Ogeechee's primitive beauty.

I took my wife home. It was sad because fishing is fun and I wanted to share with her the experience of exploring a new river and learning where the fish hid and how to catch them. Her apprehension made it impossible. I'd have to find somebody to teach me the river and then prove I could catch fish.

During the week that followed I told several people about falling in the river. "Did you catch anything?" they'd ask. I quit talking about it because admitting that I hadn't was embarrassing. Finally, a gentleman offered to teach me. Charles Howard said he'd take me for a couple of hours after work.

We took route 24 from Statesboro towards Oliver. At a dirt cross road about five miles east of town a matronly Georgia farmhouse plumply spreads its three porches around itself, shading its windows. Opposite, on the left of the macadam, a low, yellow brick ranch house stretches in the shade of majestic pine trees, screened by a line of smaller pines along the Oliver road. A little white arrow tacked on a stout, brown fence post points left to Macedonia.

To get to the river, you drive through

The slow water in the many sloughs of the Ogeechee are good places to catch jack and the vicious bowfin. The dark coffee colored waters reflect the sky like the surface of a mirror.

Macedonia. It's a fork in the dusty road leading to a gleaming white Baptist church, its cemetery and its preacher's house. The left fork is a buff, sandy trail winding through green corn, cotton and tobacco fields, crossing another dirt road and changing to red clay. It plunges through dense, marshy woods of black jack and scrub oak, and spreads out in a clearing as if it were the pale yellow mouth of a sand and clay river spilling downhill to the dark, coffee brown of the Ogeechee. This is Williams Landing.

We rented a boat and Charles started paddling up the river.

"If you fish upstream, it ain't so hard to get home when you're tired," he explained.

He shoved the boat across the thirty yards of river above the landing to the right side. Here, live oaks hung darkly over deep holes. The star shaped leaves of sweet gums danced on slender stems above us.

Charles pointed to a whirlpool below a big fallen tree. "The bass lives in places where the current runs backwards," he said. "Try 'er in there once."

I cast sideways and threw the black plastic worm into a bush.

"That's where the squirrels live. Try again."

I put the next cast into the water, but nothing happened.

"Nobody home. Let's move up," he said.

We paddled to the opening of a slough. Although the water was moving here, it wasn't as fast as at the log.

"Put it right at the mouth of the slough." Charles pointed with his paddle and I plopped the worm at the base of a cypress. It sank and I let it lie while I pulled a loop off of my spinning reel. When I turned the crank, the rod bent double. At first I thought it was a snag, but the line pulsed and the snag began to swim for the bushes. I kept cranking and brought the fish up to the boat.

"Bring him in, but don't put your hand in his mouth," warned my guide. When the creature came aboard, he started thrashing, twisting line and net around my feet.

"That's no bass!" I gasped.

"Nope. It's a mudfish."

"A what?"

"Mudfish. You'd call it a bowfin or grinnel. Kill him, and let's get rid of him."

As I examined the beast, I could feel my neck hair bristle. It had a round, flat head like a catfish. It's jaws were powerful; it had bent the heavy hook out of shape, making it unusable. Rudimentary feelers drooped out of what looked like nostrels, making it look as if it had a runny nose. It glared with sullen beligerence. Its boneless fin began about three inches behind the head and merged with the tail, bowing out in a ragged circle. When it moved, it looked as if it were partly snake and partly fish. It's a hold-over from pre-historic days and it looks it. I picked it up with a pair of heavy fish pliers. Charles drew a big hunting knife and cut its head off. We threw the pieces in the river.

"Look at your worm now," he said.

Besides being twisted into a useless wire, the hook was torn completely out of the plastic and the heavy line connecting it to the rear hook was bitten through. I tied on another worm, thoroughly impressed with the power and viciousness of the bowfin.

We paddled up through a narrow "S" curve where fallen logs forced the river through a tight channel like the nozzle on a garden hose. The water almost foamed. When we got above it, my guide pointed to a deep hole under the roots of a red oak.

"Try that one."

I bounced the worm off of the bank and into the water. The bail closed on the spinning reel and something hit the line hard. I yanked. There was a flash of underbelly and the water surged convulsively. I leaned back on the rod and kept cranking. The rod arched in half and bounced up and down. Charles' expert boat handling and a lot of luck brought a three pound bass out of the snares and into the boat.

"He's eatin' size. Plop him in the well," said my guide.

"I see, now, where you're supposed to cast," I answered shakily. The fight hadn't been long, but landing a sizeable bass always leaves me shaken. "You pick the steep banks and holes. You don't fish in shallow water and around a marsh."

"Not generally. I might try around the mouth of a slough, like we did with the mudfish, but there's gotta be a place for the bass to hide. Mostly, he likes moving water."

We fished until sunset. I lost count of the number of strikes we had and missed. When the sun touched the tops of the trees, Charles started the boat down river. I quit fishing and paid attention to our neighbors. I looked up and saw a squirrel jerk his bushy gray tail at us as he scolded. A wood thrush started piping back in the swamp. Turtles plopped noisily into the water as we slid by their logs. I heard a quail calling to his covey. A blue winged warbler flashed in front of the boat and, as we rounded a bend, two wood ducks splashed aloft and flew down the glowing blue-green sky.

It was dark when we got back to the landing. A barred owl hooted from high in the top of a cypress. We carried home four "eatin' size" bass so Mitzi could cook us supper. We showed her, but she still won't go back on the river.

The Ogeechee is one of Georgia's finest remaining natural rivers, virtually untouched by civilization and industry. Many persons feel the river should be preserved in its natural condition as either a state scenic river or a national wild river.

booby trapped rivers

LIMB LINES...A DEADLY MENACE?

By Herb Wyatt

■ The man was obviously angry. The look on his face, the way he walked and especially the long silence as we locked eyes all told me he was seething with righteous indignation. I told myself to be polite, because irate fishermen and hunters have a right to complain to the Game and Fish Commission, and steeled myself for the accustomed lecture on how we in the department were all a bunch of loafers, incompetents and didn't have the intelligence to take the advice of the knowledgeable fisherman and hunter who knows exactly what we should do to improve the deer hunting in DeKalb County and the fishing in Ty Ty Creek or whatever. All the while of course, I was figuring how I could win the verbal fight, taking full advantage of my status as a biologist to reduce his arguments to absurdity, something I usually accomplish the day after such an encounter at the earliest.

Then he cut loose, winding up quicker than I thought with the statement that somebody ought to do something, the Game and Fish Commission ought to pass a law.

By that time my hackles had lain, the knot of apprehension had dissolved and I realized he had expressed something that had bothered me for a long time, and I was in full agreement that something ought to be done.

The gist of his story was that while fishing on the Ocmulgee River, he had drifted up into limbs along the edge of the river while working on a stubborn motor or something, and became impaled on a limb line. Maybe you call them bush hooks or set hooks. Anyhow, this hook penetrated into his leather jacket, and it was only by brute strength that he was able to keep the line from pulling him into the water. He hung onto the boat and finally tore loose, ruining a good leather jacket, besides being thankful it wasn't warm weather, otherwise, he might have ruined an equal amount of his own hide. Sounds kind of funny, huh? I must admit that situation turned out to be something to shrug off, for us. Not for him. It scared him. I could tell just how much it bothered him when he said "What if it had hooked me under the chin, or worse yet, what if it had been my 10 year old daughter? I'll tell you now," he continued, "somebody is going to get drowned, or bleed to death, or blinded or disfigured by those limb lines on this river yet if somebody doesn't get busy and stop people from leaving them out."

You know, he is probably right. I got to thinking about it and realized that this is a new danger, one created by technological progress that has resulted in nylon lines and stainless steel fish hooks. Not so many years ago, such

fish lines were of cotton and the hooks were of steel that would rust. Those of you who ever set bush hooks or trot lines with cotton lines know that a week in the water made a cotton cord so weak you could easily break it with your hands. But leave a nylon cord in the water six months and it is still about as strong as it was the day you put it in. And you just don't break a piece of nylon cord with your hands. The stainless steel hooks of large size used on a big catfish can hang in the water and air for months and still be there. The steel hooks commonly used a few years ago would almost rust away in a month or two. But now, with the almost indestructible materials, the fish hooks accumulate faster than they rot away.

But why are they left set out?

It works like this. Two people go to the river to fish for a day or overnight. They buy a ball of cord and a sack of hooks, and before they get started fishing, they go down the river setting limb lines. For those of you who haven't fished enough to recognize a limb line, it is simply a length of cord, usually between 3 and 6 feet long with a 1/0 or larger hook tied on and the whole thing tied to a limb hanging over the water. It is usually considered better to tie the line to the end of a long, whippy limb. This tires the fish out faster and also is harder for the fish to break off. Or the man, if one should get snagged by it.

We left our two fishermen tearing down the river this warm spring afternoon festooning the limbs with lines, hoping to take back a mess of channel cat. As with all fishermen, they are anxious to get to fishing, so they hurry and bait the lines, then light out for a little pole fishing to catch some bream or cast for some bass. Anyhow, like most fishermen, they fish to the last possible moment, then hurry back and run their limb lines. What happens now is hard to figure, but I guess it is because times are good and hooks and a ball of cord are so cheap, and everybody's in a hurry to either (1) get back to fishing, (2) get home before too late or, sometimes (3) get all these fish back and show them off, or maybe even (4) to bait up again and catch a croker sack full. For whatever reason, some people, apparently most, fail to remove their limb lines. Maybe it's just too dang late and they're too tired, and "nothing's biting anyhow, so let's don't bother." I don't know. But I do know the river is then booby-trapped. Especially if the river falls a few feet and the hooks that were more or less safely under a foot or two of water are now dangling about chest high to a man sitting in a boat. Or head high to his 8 year old sitting in the bow. And they are sometimes hard to see. Especially if you are concentrating on laying the plug up along the bank, or if you look off for a moment for any reason. I know, I have had shivers while working the rivers, especially at night, and feeling a limb line snaking across my face. Guess I always considered it a remote possibility in the list of occupational hazards, like being eaten by a gator, but I now believe that for the reasons given above, the limb lines are becoming more plentiful and more of a menace.

So what can we do about it? The irate river fishermen who started me thinking about it was all for passing a law making it illegal for anybody to leave a limb line out unattended, or perhaps making it illegal to even set limb lines. There might be some merit in such a law. But, as I pointed out to the man, a law is only as good as the enforcement that can be exerted, and I know of no way to effectively enforce such a law. How in the world can a wildlife ranger tell if a line is unattended or not, or if it isn't, who put it there. So, you might suggest, make everybody tag his limb line, then we would know who each line belonged to, and he would surely take his lines up then and would

Limb lines or set hooks can be a threat to unsuspecting fishermen and boaters. With the use of modern nylon cord instead of cotton, lines don't rot away for months, even years.

Watch out! If you see a limb line in time, you can usually deflect it with your paddle, like author Herb Wyatt, a veteran fish biologist. Older lines may not be as visible as this one, especially if the water level drops and leaves the hook only head high.

Too late! If this wasn't a posed scene, Game and Fish photographer Ted Borg could be in need of a tetanus shot and some surgical stitches. His health insurance will cover it, but does yours?

A rusty hook that may eventually be too corroded to puncture your hide? Modern stainless steel hooks don't rust as fast as the old kind, and this heavy monofilament cord left on the Ocmulgee River will be around years from now.

be particularly careful not to leave out a line with his name and address attached for the convenience of the wildlife ranger to make a case against him. Well, like the gun law, this would work only for the law abiding. A man who didn't want to go to the trouble and possible expense of tagging his lines could easily; so very easily, fill the river full of un-tagged lines, and unless he was very careless, it would be only by sheer chance if he were caught.

So what can be done? Nothing very effective, I'm afraid. It's sort of like the litterbugging problem. When you come right down to it, it's more or less a personal thing. No law is effectively going to stop people from slinging beer cans all about the landscape, and neither can we keep people from going off and leaving the river boobytrapped with limb lines. About the only thing we can really do is appeal to them to have some regard for other people. It's an interesting example of human nature when you realize that you and I would never throw trash in our own yard, but we will do it on the public right-of-way. And we would think someone was mentally deranged who would set limb lines around his neighborhood where kids and even pets could become impaled on a hook, yet we think nothing of leaving those lines hanging along the river banks.

Maybe this is a tempest in a tea pot, but I haven't been able to pass it off. The fisherman who came to see me was upset, and he upset me. I believe he was right in his gruesome predictions, and I also believe that something particularly messy will happen before public opinion will force something to be done. And when something is done, it will probably be an over-reaction and result in a law that prohibits limb lines and probably trot lines. At any rate, the way it looks, we will have yet another unnecessary law that will have been brought about by the thoughtless actions of a few fishermen who are too tired, too much in a hurry or too unconcerned to clean up their mess.

The concept of rivers being public property and open to outdoor recreation is too valuable to endanger by any infringement of law. Maybe it would not be all that great a loss if we could no longer set catfish lines in the river, but it would be a loss, and it would make the next privilege easier to lose.

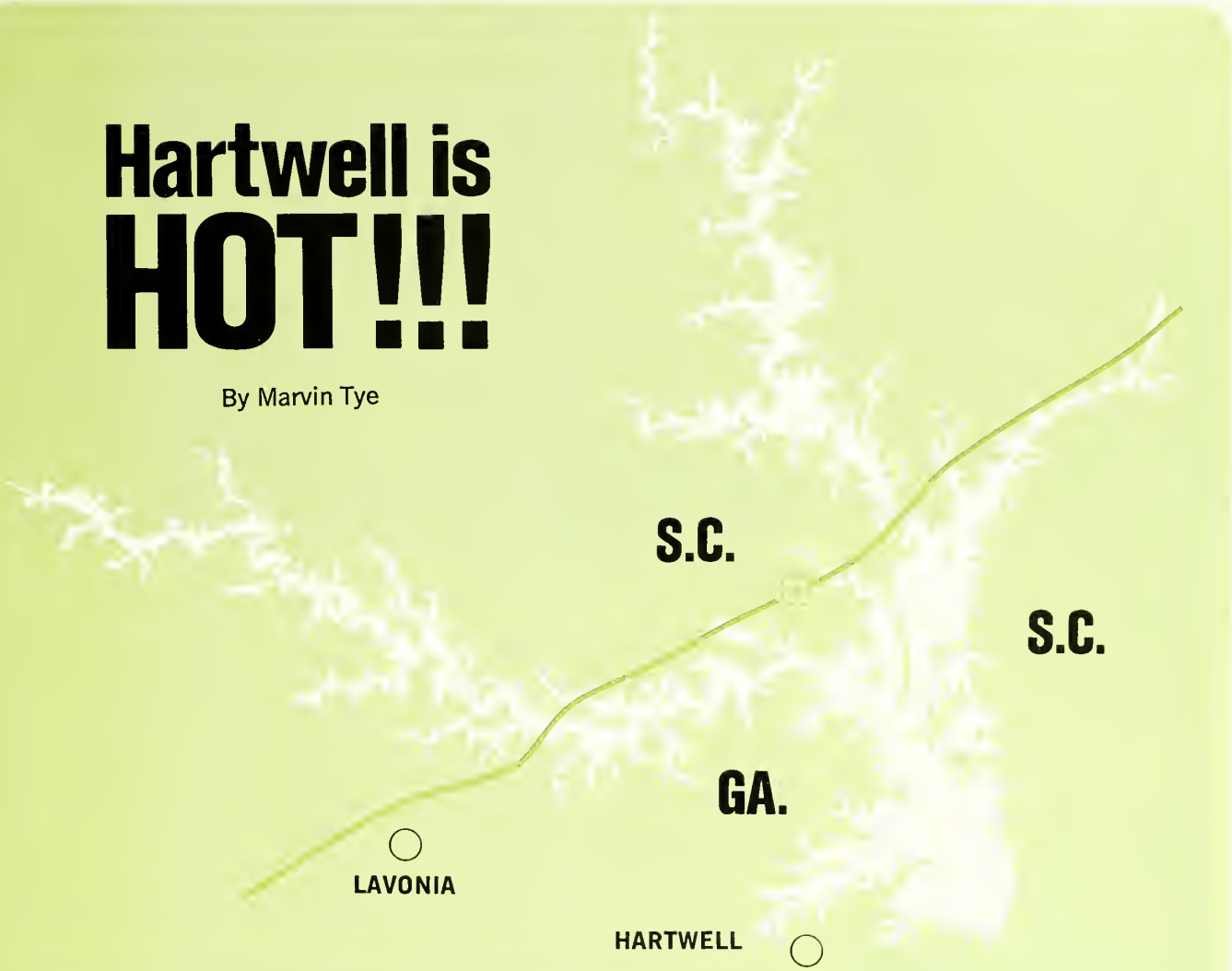
I know that only one fisherman in 10,000 will ever set a limb line, and it is likely that nobody who has done it lately will even read this, but think about it. It may be that one of your fishing friends sets limb lines, and you can bring it to his attention that talk is going around to outlaw limb lining, and that he could help by taking his up and cutting other abandoned lines off.

It's no big thing, sure, but then again, I can think of better ways to spend an afternoon on the river than hanging from a willow limb with a 1/0 hook through the carotid artery.

If you use set hooks, or even if you don't, it's a good idea to always cut unused ones down. If most limb liners did this, their activities would never be outlawed after some unfortunate "accident."

Hartwell is HOT!!!

By Marvin Tye



■ "Cast toward the bank, let your lure sink, then reel in as fast as you can," Chuck instructed.

This method of fishing seemed better suited to taking bluefish, barracuda, or some other salt-water gamester than largemouth bass, but Chuck was the expert on fishing these waters, so I did as he said. On my second or third cast, a largemouth of about 12 inches grabbed the lure.

I met Charles "Chuck" Fincher about a year earlier when he had come by the Public Information Office of the Game and Fish Commission to ask about hunting regulations and prospects for the 1968-69 season. A few months later he had returned to the office with a big grin and the head of a trophy-size whitetail buck which he entered in the Game and Fish Commission's big

Continued on next page

Author brings in two bass in the net during a fast-action moment on the large lake on the Georgia-South Carolina border. Residents of either state can fish the impounded waters of the lake with their resident fishing licenses.

deer contest. He also bagged another buck before the season ended.

Chuck, at present a full-time student at Georgia State College, is a skilled deer hunter who has averaged more than one buck for each year he has hunted. In addition, he's really mad about fishing.

Since our first meeting, he had been urging me to accompany him on a fishing trip to Lake Hartwell. Until this sunny day a couple of months ago I had been too busy to go. That's one of the disadvantages of working for the Game and Fish Commission. The best hunting and fishing seems to be during the period when we have the most work to do.

Finally, on April 4, we were able to get together. Chuck filled me in on details of fishing the lake as we drove up from Atlanta. Hartwell Dam was completed January 17, 1962. The new structure on the Savannah River formed a large impoundment that covered more than 55,000 acres in Georgia and South Carolina. Branches of the lake extend up the Tugaloo River on the west and the Seneca on the east.

Hartwell was constructed by the Corps of Engineers in conjunction with Clark Hill, located downstream, for the reduction of flood damages, generation of hydro-electric power and for the regulation of river flow for navigation.

The dam is located about 305 miles above the mouth of the Savannah River, 98 miles above Augusta, and 7 miles east of the town of Hartwell. The dam site can be reached by way of U. S. Highway 29. Interstate Highway 85 crosses the lake near a modern marina. Chuck and I drove up from Atlanta on this highway, a distance of about 98 miles in a little less than two hours.

Chuck Fincher uses long-handled net to bring in largest fish of the day. Hartwell bass fishing is now in the hot stage, with many nice catches being reported.

In any new lake, a hot stage occurs sometime during the first ten years. This is caused when organic matter left on the bottom acts as a fertilizer and triggers a rapid growth of smaller species and a corresponding feeding frenzy by the larger predatory fishes. During this period it is not too difficult for the skillful fisherman to haul in a limit catch. Hartwell is now hot. This is one reason why I was eager to sample the fishing.

We launched my aluminum cartop boat about an hour after daybreak. Chuck headed straight for an area that had produced good catches for him many times before. Then he began to demonstrate his somewhat unorthodox style.

Chuck removed his shoes, stood up in the stern and began steering the outboard with his sock-clad feet! He ran the boat parallel to the rocky shore, only a long cast away. I've always been told that it's unsafe to stand up in a moving boat and I've never seen anyone else handle an outboard with his foot. To tell the truth, I halfway expected Chuck to take a nosedive into the water when the first large bass struck, but it didn't work out that way.

We cast our lures almost to the bank, allowed them to sink, then began a rapid retrieve as the boat moved parallel to the shore. Perhaps you could call this method a combination of casting and trolling. My doubts about the effectiveness of this method were dispelled rather quickly. I got the first strike and landed the first bass on my third cast. Chuck landed this fish's twin a few minutes later, and I landed another of about the same size.

"Let's toss these little fellows back and leave room on the stringer for some real bass," Chuck grinned.

"O. K." I replied. I was beginning to share his enthusiasm.

Suddenly I felt a solid strike and I knew I had something larger than the baby bass we had been tangling with. "I've got one too," Chuck yelled. I glanced around at the stern and saw that Chuck was indeed tied into a good bass. He had not fallen into the lake, but seemed to have the situation well under control.

I was too busy with my own bass to really evaluate Chuck's technique. The fish took line against the drag of my spinning reel as it surged toward the bottom. Steady pressure from my seven-foot rod soon took its toll and the bass headed my way, resisting every inch of the way. Finally he was at the side of the boat and I scooped him into my long-handled net.

"Net my fish," Chuck yelled. His bass was at the surface, still struggling. The treble hooks on the rear of my plug were firmly embedded in the bass' mouth and those on the front were hopelessly tangled in the net. Afraid that Chuck's fish would break off unless it was landed quickly, I dipped the net under it, including my bass and lure, and carefully hauled both fish into the boat!

After we untangled the mess, we compared the two fish. They were almost identical in size, mine being only slightly larger. The scales showed it to be a little more than 2½ pounds

The bass limit for the Georgia portion of Lake Hartwell is 15. Only 10 bass may be taken in the South Carolina portion or brought out on the bank in South Carolina.

We passed over the same area again a few minutes later and had another double hook-up. I brought my bass in first and managed to get fish, lure and all, out of the net this time before landing Chuck's bass. Chuck hooked another bass and I laid my rod aside to man the net. After we got that one in the boat, we were unable to stir up any further action in that particular stretch of water.

"Let's move to another spot," Chuck said. "I believe we can find some more bass."

"That sounds like a good idea," I said. "We've got a pretty good catch here for just an hour's fishing, five bass over two pounds each and three too small to keep. I've been on several fishing trips that didn't produce that well."

"We're not through yet," Chuck said.

As if to prove his point, he made a cast near the shore in our new location and leaned back hard to set the hooks in the biggest bass of the day. This one was an acrobat. As soon as it felt the strike, the bass leaped clear of the surface, throwing spray in every direction. "He'll go five pounds," Chuck shouted. He was really excited over this one. Again, I wondered if he would fall out of the boat as he played the leaping bass. To his credit, he kept his balance, and played the fish skillfully. The flying acrobat spent almost as much time in the air as in the water.

In the boat, the bass weighed a little less than four pounds. Not as large as we thought, but a nice catch anyway.

We had to return to Atlanta that afternoon, so we missed out on the two prime fishing times, dawn and dusk. In spite of that, we couldn't complain about our catch. We kept 10 nice bass and a two-pound walleye, which Chuck landed shortly before we quit fishing. We threw back at least half-a-dozen bass and let one pickerel escape at the boat. Neither of us wanted to clean and eat the little rascal.

There is no size limit on bass at Hartwell. We could have kept those we released, but we only wanted enough for a good fish fry. Bass under 12 inches are too small to eat anyway. The Georgia Game and Fish Commission stocked 25,000 trout in Hartwell during the past winter. Success of this venture has not yet been determined. There is a size limit of 14 inches on trout in the lake.

In addition to bass and trout, anglers can catch several other species of fish in Hartwell. White bass and walleye have been stocked successfully in the lake and produce some fine fishing, primarily on their spring spawning run up the Tugaloo River. To help nature along a bit, threadfin shad have been planted as a forage fish.

The Georgia Game and Fish Commission stocked walleyes in Hartwell several years ago. These tasty gamesters provide fine fishing, especially during the spawning run up the Tugaloo River.

South Carolina has stocked saltwater striped bass, also known as rockfish, and the white bass-striped bass hybrid.

On the Georgia side of the lake, campers can use any of five camping areas and one state park (Tugaloo), plus motels in the towns around the lake. South Carolina has eight camping areas, one state park, and the usual motel accommodations. Two marinas are located on the Georgia shore, Harbor Light Marina near Lavonia, and Hi and Dri Marina near Hartwell.

Under a reciprocal agreement, licenses from either state are honored in the main body of the lake. Limits for the part of the lake in which the angler is fishing correspond to limits for the state in which that part is located.

South Carolina requires all anglers over 12 years old to possess a fishing license. South Carolina's limit is 10 largemouth bass or trout singularly or in the aggregate, and 30 other game fish in Lake Hartwell. No more than two striped bass can be taken from the South Carolina portion of Hartwell in any one day, included in the limit of 10 "bass" and trout.

Georgia regulations permit the taking of 15 largemouth bass, eight trout of 14 inches or larger from reservoirs such as Hartwell, five striped bass, and no more than 50 game fish in the aggregate of all species.

Limits of the individual state having jurisdiction over a certain portion of the lake must be adhered to when fishing in that portion or when docking a boat in either state.

Stringers containing eight-pound bass are not really unusual at Hartwell, and lunkers of 10 pounds and larger have been taken there. The fishing at Hartwell should remain hot for a couple of more seasons at least before leveling off.

I can't wait to try it again.

Stringers of fish as good as this or better are often brought in at Hartwell. Hot fishing should continue here for at least two more years.

A pair of doves headed down the middle of the field and, upon apparently noting a movement from another hunter standing in the open on the edge of the field, some 50 yards away, they swung to their left, straight at me.

Just as they came into range, the doves quartered slightly, giving me a good shot. I triggered off two quick shots and the first dove fell.

Describing the feeling that came over me is difficult. Perhaps you can understand better if I explain the situation more fully. It was the final day of the first half of dove season. I'd been out only once this year, and on that occasion had managed to miss all four shots I took, all at long range.

So here, on the last chance for this season, I had finally scored on doves. Needless to say, I enjoy dove hunting or I would not have been there. Doves are one of my favorite game birds. It was, indeed, a satisfaction to be out in the open, gun in my hands, enjoying fine sport.

Moments later the second dove came down. At this point my score was certainly not the greatest in the world, but I felt it was fairly good. I had two birds in the bag and had taken eight shots. At that rate I'd have six birds per box of shells.

What added most of all to the pleasure I was experiencing was that the shells I was shooting had cost me about a nickel apiece, or about $1.25 per box, compared to perhaps $2.50 or $3 for the normal box of shells over the counter.

No, it wasn't the price of the shells alone, it was the fact that I had reloaded the shells myself, adding the satisfaction of having made my own.

These were the first reloads I had tried for hunting. I got my reloading press a few months earlier but didn't get around to trying it out until hunting season was almost upon me. Then, realizing the shortness of time, I got busy!

With a schedule that permitted no hunting time right away, I took my first reloads out into the woods for a little test and practice on clay targets thrown by hand. I just wanted the confidence of knowing for sure that my own self-made shells were potent. After filling the air with bits of clay birds, my confidence was reasonably sufficient.

Yet, even being aware that according to the books, the experiences of others and the personal experience of shooting clay targets was not enough. The acid test could come only from taking game.

And now I had passed the test. My batting average continued through the day, and I wound up with exactly six birds for a box of 25 shells.

As I headed for home, I began to realize I'd found as much satisfaction and pleasure from reloading my own, and from having success afield from them, as I did from the actual hunt itself. And I was anxious to get home and get to work again with the reloader.

Part of the reason for my ambition of the moment stemmed from another bonus afield. During moments when no birds were in sight, I'd noticed a number of discarded cases left by another hunter.

These perfectly good plastic hulls were excellent for reloading, and would supply me with a new batch of shells as good as factory loads.

Of course, unless you shoot quite a bit, reloading isn't necessarily practical. You'll have to invest some money in tools, and stock up on powder, shot of the various sizes you'll use, primers and wads of various types. This can amount to quite a bit. A good stock of supplies might run as high as $40, but will load several cases of shells. If your only motive for reloading is saving money, it can be worthwhile if you shoot perhaps a half case of shells or more per year. But more than that, I think you've gained another enjoyable hobby . . . one that will save money, rather than simply cost more.

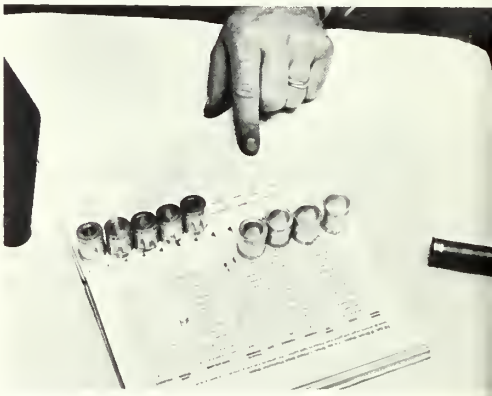
You might as well be forewarned, however, that by reducing costs of each shot, you're going to do quite a bit more shooting. Increased skill gained through more practice will add more pleasure.

Probably the two questions that first pop into the mind of the average person, when thinking of reloading are: Is it safe? Is it difficult to reload?

If you can read and follow directions with reasonable care, you'll find there is no danger in reloading. Powder and caps should be stored out of reach of children in a dry, cool place. And of course, such things shouldn't be bounced around or dropped. Smokeless powder will ignite easily if exposed to flame or spark, but unless it is confined under pressure, it will only burn and not explode. If you pour a small amount on cement or similar safe base and touch

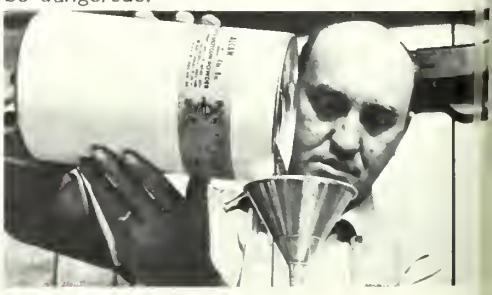
Right: Use a funnel to assure the powder and shot aren't spilled when poured into the tubes.

Before starting to reload, make sure everything you'll need is close at hand . . . powder, shot, primers, wads, a reloading data book and of course, a reloading press or tool.



The first step is to select the proper load for the shooting you want to do. The basis of selection is the empty hull to be reloaded. Choose a powder tailored to the desired load, then find in the data book the proper bushing to throw the correct load of powder and shot. Also, be sure to use the recommended wad to assure the right wad column length. DO NOT EXCEED RECOMMENDED POWDER OR SHOT CHARGES. Reloading is not dangerous if directions are followed carefully.

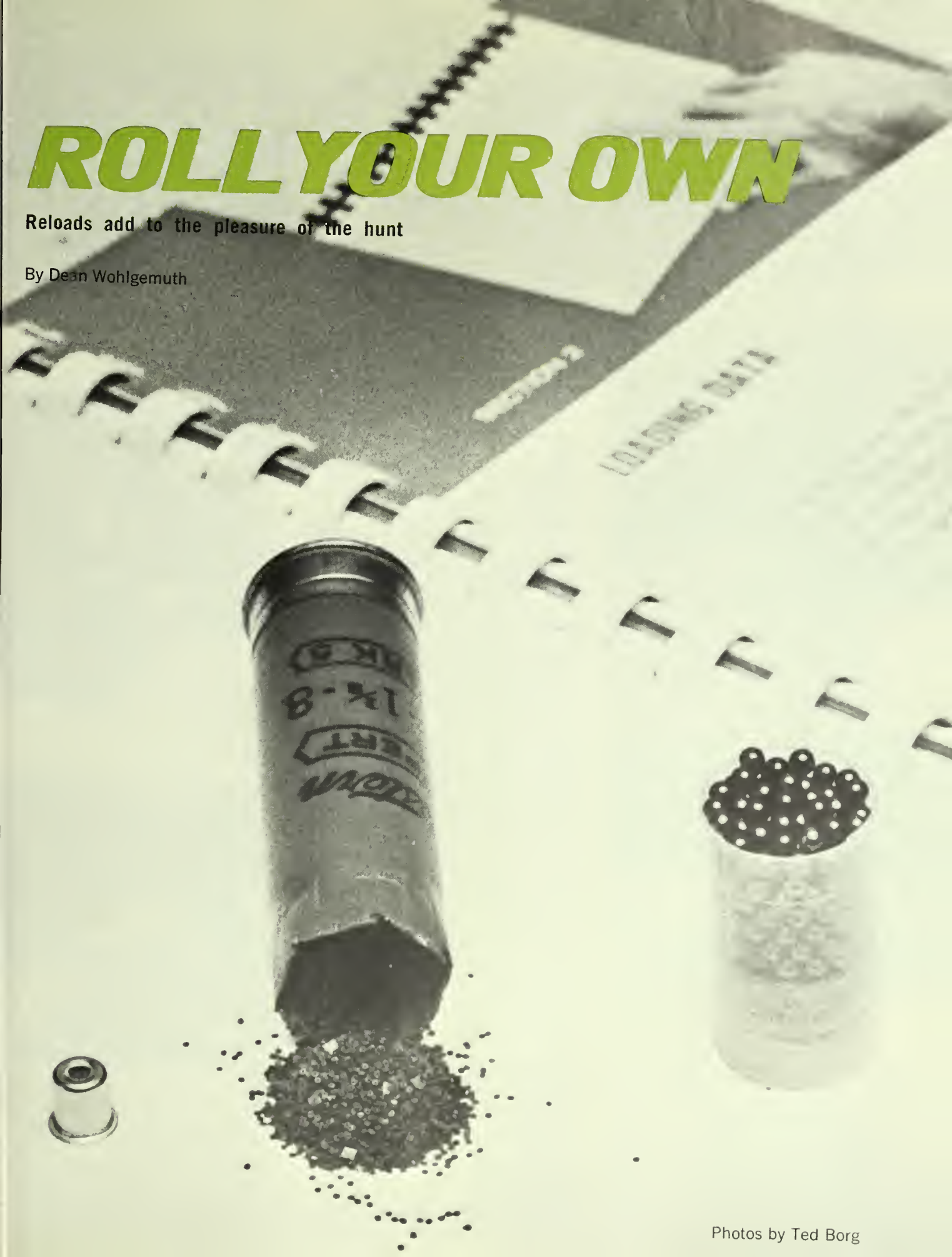
The bushings are put into place in the charge bar of the reloading press. Make sure the shot bushing is under the shot holding tube, and the powder bushing is in its proper place under the powder reservoir. Reversing these two would be dangerous.



ROLL YOUR OWN

Reloads add to the pleasure of the hunt

By Dean Wohlgemuth



Photos by Ted Borg

a match to it, it will simply burn.

Just be certain that when loading shells, you do not inadvertently put a double charge in any shell, or do not exceed recommendations of a reputable loading chart. Many such charts are available from various manufacturers of loading equipment and components.

Difficult? Well, that's a double-barrelled question to my way of thinking. The actual mechanics of loading the shell are quite simple and any child can do it. The difficulty, if any, is in getting all the necessary proper components together for the load you choose to make.

For example, hulls made by various ammunition makers have different interior lengths. Also, different amounts and types of powders and shot vary the length of the wad column you'll use. The wad column must be the correct height in order to get a proper crimp. Crimps must be good enough to keep shot from spilling out of shells, and also to provide the necessary confinement for the powder to explode properly.

Most reloading presses are tools that are basically the same. Since I am familiar with my own Texan DP I, I'll use it for an example. It is equipped with plastic hoppers for both shot and powder. A charge bar underneath the hoppers is fitted for changeable bushings to whatever amount of shot or powder you wish.

On the first step on the Texan, you place the fired shell on the decapping station. A pull of the lever presses out the spent primer and sizes the empty shell. At the next station, a new primer is placed in the priming seat with the shell over it, and another pull of the lever seats the new primer in the pocket.

The next step is to move the case to the third station, where three operations are performed. The first is to lower the lever so the shaft, through which shot and powder flows, enters the mouth of the case. Slide the charge bar so that the powder is dropped into the case. Next, insert the wad into the wad starter and press it into the shell by lowering the lever all the way. Proper seating pressure of the wad is adjustable. The chart you're using will tell you what pressure to use.

While holding the lever down after seating the wad, slide the charge bar the opposite direction. This drops the shot.

Now you're ready to crimp the shell. Move the shell to the fourth station (number of stations may vary on different presses). This is the crimp starter station. Pull the lever down all the way and the mouth of the case will be creased to properly form the crimp. Most reloaders have interchangeable crimp starters for both six-point and eight-point star (folded or "pie") crimps. The final station simply completes the crimp.

If you did everything right, you've loaded your first shell! From this point, it's a simple matter to repeat the process over and over until you've loaded as many shells as you'll need. I've loaded as many as six boxes of shells in a short evening, making no effort to hurry. I see no need to go faster, but progressive type reloaders, costing much more, will load much faster. This type reloader is primarily for use by gun clubs or groups that use large amounts of ammunition.

The initial cost of reloading equipment may seem high to some. Presses similar to the one described in the reloading process vary in price from about $40 on up to $100 or more, or for the mass-producing progressive reloaders up to more than $200. A $40 or $50 reloader is ample. While this seems like quite an outlay, it can pay for itself in a season or two, depending on how much you use it. And from there on, your shooting costs take a dramatic drop of 60% or more. Further, you'll always be able to have plenty of the ammunition you need for any type of shooting.

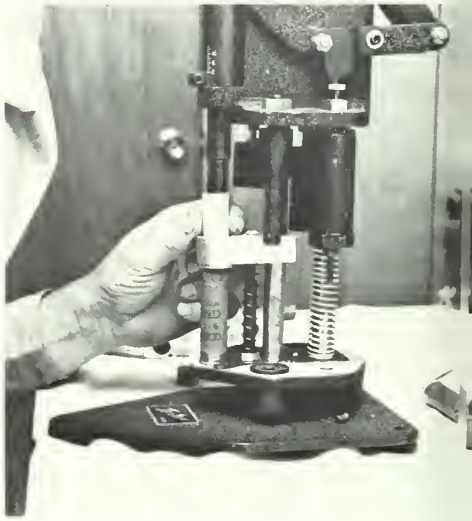
The initial outlay must also include the necessary components. For the average Georgia hunter, I would guess it would be most desirable to accumulate components for dove or quail loads first, and progress from there as needed. A good all-around load for most small game hunting, including doves, quail, and even squirrels and rabbits, would be a light or medium field load of either 3 or 3¼ drams equivalent of powder and 1⅛ ounce of No. 8 shot.

For loading such shells, you can buy a 25-pound bag of No. 8 shot and, according to how much you'll likely load, either a half pound tin or a keg of 3 to 5 pounds of powder. A half pound of powder will load from five to six boxes of shells. If you shoot much, and you probably do or you wouldn't be interested in reloading in the first place, it's more economical to buy at least a 3-pound keg. A variety of three or four different powder bushings for your reloader are almost a necessity, to allow you to vary the amount of powder you use, and for using different types of powder.

Bushings for the Texan, and most other reloaders, run about $1 each. Also, two or three different shot bushings, at about the same price, should be added to allow you to load differ-

The first step in actually reloading is to put the empty hull in the first station, which presses out the spent primer and resizes the hull so that it will fit into the shotgun's firing chamber properly.

The new primer is placed into the seating die on the second station, the hull is placed on top of the primer, then pressed onto it to seat the new cap into the pocket.



The third station performs several functions. First, depress the lever to insert the loading tube into the hull. Slide the charge bar to drop the powder charge. Bring the lever up, insert the wad column, and press firmly to get the proper pressure on the wad (refer to reloading manual for correct pressure.)

ent amounts of shot.

For light or medium loads, your choice of powders might well be either Alcan 120, Red Dot or Green Dot. There are many different types of shotgun powders available, but these are among the more popular. Alcan 120 is excellent for skeet, trap and field loads. The Red Dot and Green Dot powders are also very fine for light to medium loads. These are fast burning powders, which are desirable for light and medium loads. For heavy loads, using a slower burning powder, such as Alcan 5 or Alcan 7, is necessary.

The standard for loading shells actually is an old-fashioned method, but still seems to be the most accurate way of gauging the power of a shell. Powder is measured in "drams equivalent." That is, in the old days of black powder, a shell might have three drams of black powder in it. Modern smokeless powders are much more powerful, thus a smaller amount than three drams is used, but the amount will produce an equal amount of power as will three drams of black powder.

For example, in a paper hull using fiber wads, 23 grains of AL-120 would produce three drams equivalent, or the same amount of power as three drams of black powder. However, other modern advances in shell design have made other changes necessary in loads.

Because of the stronger, tighter case, a plastic shell will not require as much powder. Usually, there should be a 10 per cent decrease of powder for a plastic shell. In the case of AL-120, therefore, you would subtract 2.3 grains of powder, leaving the charge required for that powder at 20.7 grains. Further, new plastic wads seal the gases much more tightly than do the fiber wads creating still greater pressures. Thus another decrease in powder is necessary. The only safe thing to do is to get a reputable reloading guide and carefully follow the charts. There are even different requirements of powder from one brand of hull to another as well as from one brand of wad to another. A good handbook will give many variations of combinations of how much powder and what type wad to use with the different brands of cases for your chosen load.

The simplest thing to do, of course, is to limit yourself to using just one brand of hull as much as possible. Of course, this means saving old hulls from shells you bought yourself, picking up empties on a skeet range or you can buy new empty shells from Alcan. Both plastic and paper shells are available in new form from Alcan. It's cheaper to buy new empties than buying factory shells just to shoot them and get empties.

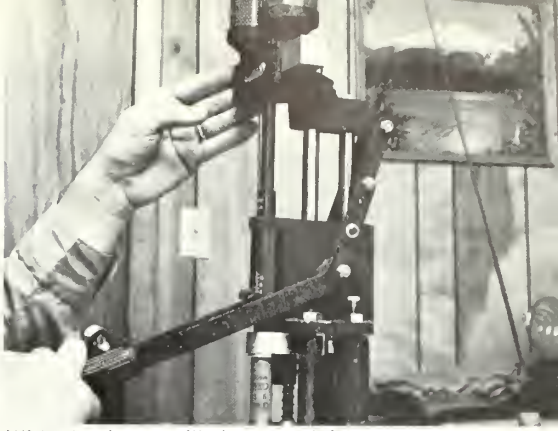
The plastic hulls are quite popular with reloaders. They can be very handily reloaded in a good press. And they can be reloaded safely several more times than a paper hull. I find, however, that paper hulls are somewhat easier to reload, so don't throw away any good paper hulls you have. Some brands of plastics are more difficult to load than others. The only problem with them is in getting a good crimp. Getting the wad column the correct height is important in getting a good crimp.

Whatever type hull you use, after it has been fired, check it over carefully for defects before reloading it again.

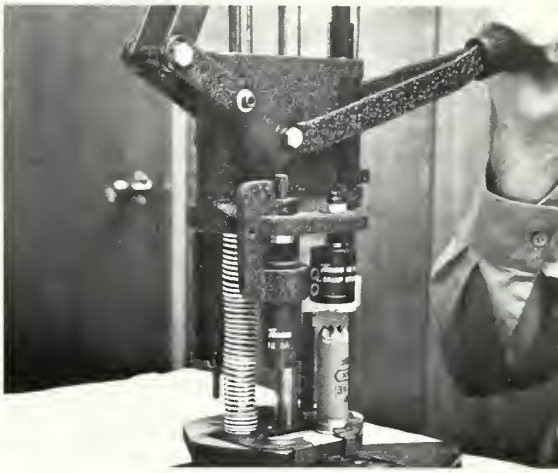
I have found that it pays to tread carefully with hulls picked up from a trap or skeet range or that have been fired from a different gun from which you'll be shooting your reloads in.

Under the extreme pressures of explosion, a shell expands to perfectly fit the chamber of your gun. This is called "fire forming." If another gun's chamber is slightly larger than your own, a shell may tend to fit too tightly in your gun. This sometimes is corrected sufficiently with a resizing device, but I doubt if it's worth the trouble. You're more likely to have trouble in an automatic or pump than in a double or single barrel, but don't think you can't shoot reloads in your auto. You can. I do.

No matter what type gun you use, what game you shoot or where you use that scattergun, be it afield or on the target range, you'll get more pleasure and satisfaction from your fowling piece if you roll your own!

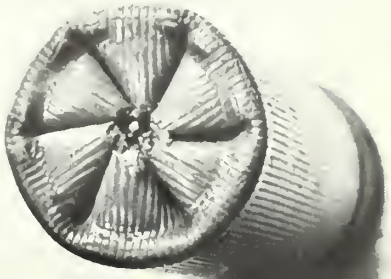


With the lever still depressed from seating the wad, slide the charge bar the opposite direction to drop the shot charge.



The crimp starter station comes next. Another press of the lever starts the fold at the mouth of the hull for the star (pie) crimp. Two dies are available, one for six-point and the other for 8-point crimps. Use the one that originally was used on the spent shell, for perfect crimps.

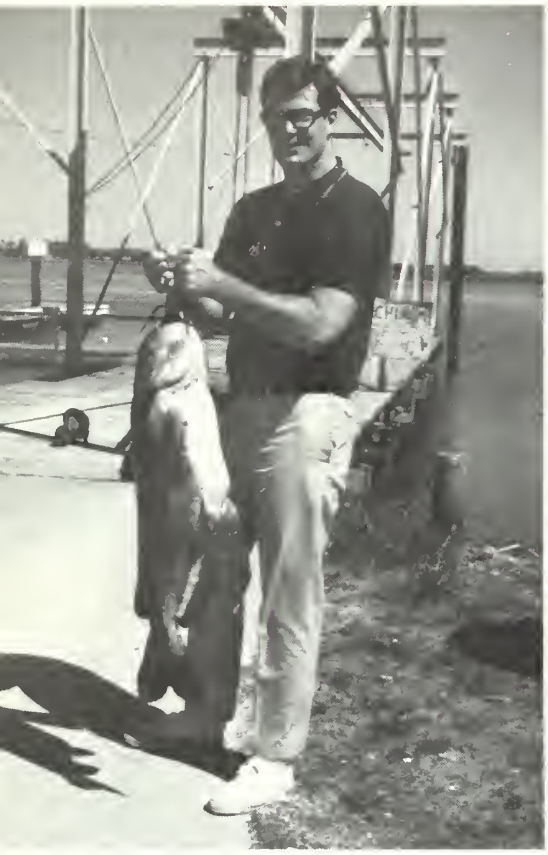
Slide the shell from the crimp starter position to the final post. Press the lever down, and Presto! A perfect crimp and a fine load, tailored especially for the kind of shooting you want to do.



Right: How's this for clinchers? Looks good enough to pass for a factory job. And it will do the job just as well if you were careful in every phase of the project. What's more, this load costs only about half of what it would across the counter. A word to the wise—you still may spend as much on ammunition, but you'll shoot a lot more for the same amount, and get double the pleasure from shooting your own!

the outdoor world

Record Catfish Caught in Satilla



The new State record channel catfish caught by St. Simons Island druggist W. H. Backus, held by son-in-law Willie Caldwell.

A sixty-year-old St. Simons fisherman has not only taken the lead in the channel catfish division of the Georgia *Game and Fish* Magazine's fishing contest, but has established a Georgia record for the species.

W. H. Backus, a St. Simons druggist fishing on his afternoon off, landed a 34-pound, two-ounce channel cat March 19 in the Satilla River in Camden County.

The world's record for channel catfish is 57-pounds, but until now, Georgia did not have an official state record.

Fishing with his son-in-law when he hooked the record fish, Backus gave this account of the action:

"We had been fishing for rockfish with live shrimp for about two hours, but hadn't had much luck. We had just started fishing in a little slough when I saw my cork go down. When I struck, the big cat jumped out of the water just like a bass, and I saw what I had hooked. We got the boat back out into the river, and let him pull us around until he tired. Our net wasn't big enough to land him so we beached him on a sand bar.

"When I got him on the beach, I saw the hook was just holding him in the corner of his mouth. He flipped over, the hook came out and he got back into the water, but my son-in-law managed to get the net around him in the shallow water. To show how lucky we were, when we started to pick him up, the bottom of the net busted out but he fell into the boat."

Backus said he realized he had an awfully big catfish, but he never thought it would be a Georgia record. "I started to cut him up, but a friend persuaded me to enter him in the *Game and Fish* Magazine's contest," he said.

Weighed and measured by the Game and Fish Commission's Coastal Fisheries Supervisor, Glenn McBay, the fish was 37½ inches long and 25 inches around the girth.

Backus was fishing with a forty-pound-test line and eight-pound leader.

A big booster of the Satilla River, Backus said he has been fishing in the river 20 years, "and when it's not too high it's the best fishing river I have ever seen. I can't understand why more fishermen don't discover the Satilla."

Backus said he fished in the river "every Wednesday afternoon last summer, and caught my limit of bass or bream almost every time."

The Satilla begins near Fitzgerald and flows just north of Waycross, then turns south and follows a winding path until it runs into the sea about 30 miles below Brunswick.—*John Culler*

WOOD DUCK NESTING BOXES

The Georgia Outdoor Sportsmen's Club of Cobb County has constructed 38 wood duck nesting boxes for erection on area swamps in cooperation with the program being sponsored by the State Game and Fish Commission, U. S. Fish and Wildlife Service, and Agricultural Cooperative Extension Service. Showing the boxes from right to left are 1968 president Hampton Logan and Ed Clauser, chairman of the wood duck conservation project and new president of the club.

Save The Alcovy And Lake Jackson *Continued from inside front cover*

river itself, while permitting the destruction of 4,000 acres of prime wetland wildlife habitat which cannot be economically drained without the four million dollars of federal funds earmarked for channelization.

Even more disturbing are the fears of fish biologists of the State Game and Fish Commission that siltation from the project, especially during the seven-year construction period, will possibly adversely affect fishing, swimming, boating, and esthetic values of Lake Jackson.

Their concern is heightened by the fact that the two other major tributaries of Jackson are already heavily polluted. The South River is the sewer for half of the municipal and industrial wastes from Atlanta and DeKalb County, while the Yellow River suffers heavily from siltation caused by agriculture and past strip mining. Only the normally clear year-round waters of the Alcovy help, rather than hinder, the water quality of Lake Jackson.

The practically unpolluted waters of the Alcovy materially increase the fertility of Lake Jackson, boosting its production of fish and providing the best bass fishing of the spring and early summer in the lake. Muddy water will lower the amount of food for fish, and make bass fishing more difficult.

Biologists says that with clear water, Lake Jackson is more fertile than any other hydroelectric power reservoir in Georgia. More than 300,000 crappie were caught in the lake in a three-month period alone in 1966. Many of them weighed a half a pound or better, with two and even three pound crappie not unusual. Fishermen spend more than half a million dollars annually to fish in Jackson.

While the crappie is more tolerant of muddy water than bass, the small threadfin shad that he feeds on is not. Originally stocked in Jackson five years ago by the State Game and Fish Commission, the threadfin feeds exclusively on plankton, the tiny one celled plants and animals that give Lake Jackson its rich green color of a well fertilized farm pond in the summer. But with muddy water, the plankton are blocked off from the sunlight, preventing the rich green plankton population explosion known as the "bloom." The resulting decline in the food supply for fish is reflected in the threadfin shad, and in the crappie and bass which eat them year round.

How much will it cost to ruin the Alcovy and allow drainage of its swamps? The work plan for the two projects involved prepared by the Soil Conservation Service indicates that channelization of 80.8 miles of the Alcovy, Flat Creek, and Cornish Creek will allow the drainage of 4,326 acres of swampland at a cost of $3,494,432 in federal tax money for construction and engineering costs. Simple division indicates that it will cost the U. S. Taxpayer $807.77 per acre to make drainage of privately owned swamplands possible. In many cases, the landowner will still have to spend approximately $300 to $400 per acre of his own money or obtain up to 50 per cent cost aid from another government agency, the Agricultural Stabilization and Conservation Service, to build additional ditches and drains to the main ditch built by the Soil Conservation Service.

Thus, the total investment per acre to drain the swamps probably will cost more than $1,100 or $1,200 per acre on land which according to the SCS is worth an average of $300 per acre now, and which will be worth only $350 per acre for agriculture after drainage.

What recourse does the taxpayer have to prevent the creation of such an eyesore boondoggle? The only persons who can halt the approval of funds for the project until the objections against it are removed are Georgia's two U. S. Senators, Richard Russell and Herman Talmadge, and its ten U. S. Congressmen.

Most of the Alcovy and Cornish Creek-Flat Creek Watersheds are in the 10th District of Congressman Robert Stephens of Athens, although a small portion, Gwinnett County, is in the 9th District of Congressman Phil Landrum of Jasper. Most of Lake Jackson is in the 6th District of Congressman Jack Flynt of Griffin. Thousands of fishermen and property owners on the Lake live in the 5th District of Congressman Fletcher Thompson of East Point and the 4th District of Congressman Ben Blackburn of Atlanta.

All twelve can be reached through telegrams or letters to Washington, D. C., addressed to either the Senate Office Building or the House Office Building.

If any of Georgia's twelve congressmen asks for postponement of approval of funds for the Alcovy and Cornish Creek-Flat Creek Projects, the U. S. Soil Conservation Service will be forced to redesign their plans to protect the Alcovy and Lake Jackson by eliminating channelization between the upstream dams and Lake Jackson.

The State Game and Fish Commission has not objected to the 15 dams to be built in the two projects, or to questionable channels upstream from them. Only the channels without a dam to settle silt out before it reaches Lake Jackson are a matter of major disagreement.

But unless there is groundswell of public opinion against the unwarranted channels and drainage, the agricultural engineers of the Federal Soil Conservation Service will prove again that technology has outstripped common sense.
—J.M.

Sportsmen Speak...

OGEECHEE EVIDENCE

Here are a couple of snapshots of some of our Bulloch County fishermen with a sample of the type fish to be found in the Ogeechee River. Mr. Wallace Brown, of the Clito Community, is shown with a twenty-pound channel catfish and a 5½-pound striped bass, or rockfish as they are called here.

Mr. Hubert Lee is shown with a 24-pound rockfish that he caught a week after Mr. Brown caught his and in the same area of the river. All were caught on setlines using live bait.

This is good evidence that we have in the Ogeechee River a source of recreation that cannot be measured in dollars and cents. So we shall make every effort to keep it free of pollution and unspoiled by so-called progress. To pollute and spoil a stream as beautiful and productive as the Ogeechee River, would certainly be regression. By working with the Georgia Game and Fish Commission, the Georgia Water Quality Control Board, and with the cooperation of your fine magazine, Georgia **Game and Fish**, we hope to keep this last unpolluted river in Georgia as close to its natural state and productivity as possible.

Keep up the good work that you are doing with your magazine. I enjoy it very much.

Billy Tyson, President
Bulloch County Wildlife Club
Statesboro, Georgia

IT'S NOT TOO LATE

I have just completed reading and admiring, for the third time, Jim Morrison's Editorial, "Laugh (Before it's too late)." Without a doubt, it is one of the most thought provoking editorials I have ever read. It expresses my sentiments to a "tee". I only wish the material could be reproduced in every publication across the country, thereby reviving public interest to the fact that the days of **our** wilderness are sadly numbered. Our only recourse is to stop the wanton and ignorant destruction of our national resources by unconcerned agencies, industries, and individuals.

You are to be congratulated on an excellent magazine. It is quite informative and very enjoyable. Keep up the good work.

Rufus L. Brown
Gainesville, Georgia

FOX HUNTER'S REBUTTAL

After reading the letter written by J. W. Todd of Toccoa, Ga., in the April issue of Georgia **Game and Fish**, I thought it was time someone came to the defense of the fox hunters. I do hope you will print this since I feel that there are a lot of other people like Mr. Todd, who doesn't know what a fox hunter or fox hound really is.

First of all, a true fox hunter is a protector of all game, not just fox alone. He believes in the balance of nature in wild life. If left alone by man there would be plenty of wild life for all hunters. The fox hunter very seldom carries a gun with him when he goes hunting, for he is not interested in killing any game, but just enjoying listening to his hounds chase a fox. He spends endless hours training and selecting the breed of his choice. Not any hunter takes more pride in having a dog that is deer-proof than a fox hunter. It is true a lot of people use dogs of the fox hunting breed to chase deer, but these people are not fox hunters. They are just like the hunters who use the rabbit beagle to chase deer with. You can not classify these people as rabbit hunters.

A dog that chases deer isn't kept very long by a fox hunter. They can ruin a good night's hunt as well as lose your dogs. A hound that cannot be broken off deer is quickly eliminated from the packs, always at a reduced price, or just given away. A good hound will bring much more than a deer dog. A fox hound is harder to train and must be of a breed that is bred to take an all night's chase, while any dog from a beagle to a collie with a little encouragement will run a deer.

The fox hunter carries more than his share of the load of financing the Game and Fish Commission. He is required to buy a hunting license, yet the fox is not protected from trappers or anyone who wishes to destroy them in any way. Also the fox hunters have to do their own restocking with no aid from the State Fish and Game Commission.

I don't think the fox hound is destroying game such as Mr. Todd has stated. I have been hunting for approximately 20 years and have trained many a fox hound and have yet to see a fox hound come close to catching a deer or destroying a bird's nest or catch a quail.

Sincerely yours,
E. C. Ellington
Ellijay, Georgia

Fox hunters can hardly be described as paying more than their share of financing the State Game and Fish Commission, since a 1966-67 survey showed that Georgia only had approximately 11,000 fox hunters that year, compared to more than 300,000 hunters of all species. Indications are that the number of fox hunters is steadily declining. Fox hunters ought to be grateful for the special perogatives they enjoy now in being allowed to hunt foxes year 'round throughout the entire state. In addition, non-resident fox hunters are not required to purchase a license to participate in field trials in Georgia. As for protecting foxes, most people would scoff at the need for protecting a predator of poultry and game birds and animals that has managed to survive in ample numbers without any protection or legitimate restocking efforts. Fox hunters themselves have always resisted any suggestions of having a closed spring season on fox hunting to protect young foxes or pregnant does and small fawns, although this would be a logical step if fox hunters really wanted to increase the number of foxes. As for restocking foxes, this practice is illegal, and is roundly condemned by officials of the State Health Department, who point out that it is the best way of spreading rabies throughout Georgia, with the distinct possibility of beginning a new rabies epidemic similar to the one just after World War II when 600 persons in Georgia were treated with painful anti-rabies vaccine in a single year after being bitten by suspected mad dogs who contacted the disease, primarily from rabid foxes. There is presently an active rabies epidemic in foxes in Tennessee. In addition, game biologists have proven that hunting pressure, cover, and food supply are the answer to high fox populations, not restocking in unsuitable areas with too many fox hunters.

IRRITATED

In reading your April issue of **Game and Fish**, I became a little irritated at the content of Mr. Todd's letter entitled, "Dogs and Deer." I do not speak directly at Mr. Todd alone, for his views are held by many; however this does not justify some of his misconceptions and ideas about the use of hunting dogs and their control.

First, Mr. Todd states that fox hunters carry packs numbering from 15 to 20 dogs to the woods and leave them to kill at will. The number of dogs per pack in my area seldom exceeds eight dogs, except during hunting contests; also, I know of no hunters who leave their dogs to kill any game as Mr. Todd refers, but spend most of the night and following day collecting their dogs.

I'm sure that hunters have little objections to the use of collars and rabies tags to insure their dogs' safety; however, the expense of controlling wild and homeless dogs should not be placed on these hunters, but on everyone.

I feel Mr. Todd's knowledge is somewhat limited if he thinks fox hunters train dogs to be deer dogs. There are people who do train dogs to be deer dogs, but I find it appalling to refer to them as fox hunters.

I agree that there is much to be done in controlling the threat of Georgia's deer by dogs, primarily wild dogs, but I feel that letters of Mr. Todd's type tend to alienate many people toward any dog control measure.

I feel that only by the sportsmen's working together can anything constructive be accomplished in their area.

Danny Pate
Whitesburg, Georgia

The 1969 session of the General Assembly adopted two new dog control laws signed by Governor Lester Maddox which will require all dog owners to have their dogs innoculated for rabies annually after July 1, 1970, displaying the numbered tag on a collar or harness. Counties will be authorized to charge a 50 cent license fee per dog, and required to operate a dog pound and have a county dog warden.

DEDICATION

I was recently introduced to your magazine by a local sportsman. I think it is one of the finest sports magazines I have ever read. It is refreshing to know that Georgia has such a dedicated Game and Fish Commission. It would be an honor to be a subscriber to the **Game and Fish** Magazine.

Frank W. Crane, Jr.
Columbus, Georgia

Sportsman's Calendar

SEASONS OPEN THIS MONTH

FISHING SEASON

All streams, lakes, and ponds of Georgia are open to fishing throughout the entire year with the exception of the mountain trout waters of North Georgia. See trout regulations for details. Sunday fishing is allowed.

DAILY CREEL LIMITS

Bream (Bluegill, Red Breast, and other species of Bream)	50
Crappie, Yellow Perch	50
White Bass	30
Largemouth Black Bass, Smallmouth Bass, Redeye Bass, and Spotted Bass or Kentucky Bass	15
Striped Bass or Rock Fish	5
Chain Pickerel or Jack	15
Brook or Speckled Trout, Rainbow Trout and Brown Trout	8
White Shad, Hickory Shad	8
Sauger, Walleye	8
Muskelunge	2
Channel Catfish	No Limit

There is a creel limit of five largemouth bass in Lake Russell, and the McDuffie Public Fishing Area. There is a creel limit of 25 sunfish of all species and five largemouth bass on Lake Worth. There is a creel limit of five largemouth bass, five chain pickerel, and 25 sunfish (including bluegill, warmouth, redbreast, stumpknocker, and round flier) on the Suwannee River. Channel catfish may not be taken on the Suwannee River.

POSSESSION LIMITS

No person may possess at any time more than 50 fish in the aggregate or total of all the species named except channel catfish and no more than 15 large or smallmouth bass, 30 white bass, or 8 trout of any or all species in the aggregate or total possession.

SIZE LIMITS

There are no minimum or maximum size limits on game fish in Georgia, with the exceptions noted in the trout regulations and in the following areas which all have a ten-inch size limit on largemouth bass: Lakes Blackshear, Jackson, and Russell; McDuffie Public Fishing Area; Williams Public Fishing Area and in the state park lakes: Indian Springs, Hard Labor Creek, Franklin D. Roosevelt, Fort Mountain, Laura S. Walker, A. H. Stevens, Magnolia Springs, Gordonia Altamaha, Fort Yargo and High Falls State Park. There is a size limit of 12 inches on largemouth bass on Lake Tobesofkee, Suwannee River, and Lake Worth. The Suwannee River has a size limit of 16 inches on chain pickerel or jack. The use of baskets, set hooks, trot lines, nets, and all other types of commercial fishing gear are prohibited in all State Park Lakes.

For further information on state parks and their facilities, contact the State Parks Department, 7 Hunter Street, Atlanta, Georgia 30334. For information on Lake Russell and other Chattahoochee National Forest recreation areas, contact the U. S. Forest Service, Peachtree-7th Building, Atlanta, Georgia 30323.

TIDE TABLE

JUNE-JULY 1969

GEORGIA COASTAL WATERS

HOW TO USE THESE TABLES

The calculations are for the outer bar. Find the reading for the desired tide. In the table below find the number of minutes to add to correct for the place you are going to fish or swim. The outer bar calculation, plus this correction, gives the correct reading for the point desired.

Adjust For Daylight Saving Time By Adding One Hour

CORRECTION TABLE

The times given are for Savannah River entrance (Tybee).

	Hrs.	Min.
Savannah High	0	44
Savannah (Low)	*	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabaw Sound	0	05
Vernon View	0	35
Coffee Bluff	0	55
Ogeechee River Bridge	3	50
St. Catherine Sound	0	25
Sapelo Sound	0	00
Brunswick Bar	0	00
St. Simon Pier	0	25
Frederica Bridge	0	50
McKay Bridge	0	50
Brunswick East River	0	50
Turtle River Bridge	0	55
Turtle River, Crispen Is.	1	10
Hump ack Bridge	1	00
Jekyll Point	0	30
Jointer Island		55
Hampton River Village Creek Ent.	0	20
Village Fishing Camp	0	45
Taylor Fishing Camp	1	00
Altamaha Fishing Park, Everett, Ga.	4	00
Two-Way Fishing Camp, S. Altamaha	2	00

	Full Moon	Last Quarter	New Moon	First Quarter
JUNE	29	6	14	22
JULY	28	6	14	22

JUNE, 1969

Day	A.M.	HIGH WATER HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Sun.	8:12	6.9	8:48	8.5	2:30	2:30
2. Mon.	9:06	6.8	9:42	8.2	3:24	3:24
3. Tues.	10:06	6.7	10:42	7.9	4:18	4:18
4. Wed.	11:06	6.5	11:42	7.5	5:12	5:18
5. Thurs.			12:06	6.5	6:06	6:18
6. Fri.	12:42	7.1	1:12	6.5	7:06	7:24
7. Sat.	1:42	6.7	2:12	6.7	8:06	8:36
8. Sun.	2:42	6.5	3:18	6.8	9:00	9:36
9. Mon.	3:42	6.2	4:12	7.0	9:54	10:30
10. Tues.	4:36	6.1	5:06	7.2	10:42	11:18
11. Wed.	5:30	6.0	5:54	7.4	11:24	
12. Thurs.	6:18	6.0	6:36	7.5	12:06	12:06
13. Fri.	6:54	6.0	7:12	7.6	12:54	12:54
14. Sat.	7:36	5.9	7:48	7.5	1:36	1:36
15. Sun.	8:06	5.8	8:24	7.4	2:18	2:12
16. Mon.	8:42	5.7	9:00	7.3	3:00	2:54
17. Tues.	9:18	5.6	9:36	7.1	3:36	3:36
18. Wed.	10:00	5.6	10:12	6.9	4:12	4:12
19. Thurs.	10:36	5.6	10:54	6.7	4:48	4:54
20. Fri.	11:24	5.7	11:36	6.5	5:30	4:42
21. Sat.			12:06	5.9	6:12	6:30
22. Sun.	12:24	6.4	1:00	6.1	6:54	7:30
23. Mon.	1:12	6.2	1:54	6.4	7:48	8:30
24. Tues.	2:06	6.1	2:54	6.8	8:42	9:36
25. Wed.	3:06	6.1	4:00	7.2	9:36	10:30
26. Thurs.	4:06	6.1	5:00	7.6	10:30	11:30
27. Fri.	5:12	6.3	6:00	8.0	11:30	
28. Sat.	6:12	6.5	6:54	8.4	12:24	12:24
29. Sun.	7:12	6.7	7:48	8.5	1:24	1:24
30. Mon.	8:06	6.9	8:42	8.5	2:18	2:18

JULY, 1969

Day	A.M.	HIGH WATER HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Tues.	9:00	7.0	9:36	8.3	3:10	3:12
2. Wed.	9:54	7.0	10:30	8.0	4:00	4:12
3. Thurs.	10:54	7.0	11:24	7.6	4:54	5:06
4. Fri.	11:48	7.0		..	5:42	6:00
5. Sat.	12:18	7.1	12:48	6.9	6:36	7:00
6. Sun.	1:12	6.7	1:42	6.9	7:30	8:00
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10. Thurs.	4:54	5.5	5:24	7.0	10:54	11:42
11. Fri.	5.48	5.6	6:12	7.2	11:42	..
12. Sat.	6:30	5.6	6:48	7.3	12:30	12:24
13. Sun.	7:12	5.7	7:30	7.4	1:12	1:12
14. Mon.	7:48	5.8	8:00	7.4	1:54	1:54
15. Tues.	8:24	5.9	8:36	7.3	2:36	2:36
16. Wed.	9:00	6.0	9:12	7.2	3:12	3:12
17. Thurs.	9:30	6.0	9:42	7.1	3:48	3:54
18. Fri.	10:12	6.2	10:24	6.9	4:18	4:30
19. Sat.	10:54	6.3	11:06	6.7	4:54	5:12
20. Sun.	11:36	6.5	11:48	6.5	5:30	6:00
21. Mon.			12:24	6.6	6:12	6:54
22. Tues.	12:36	6.3	1:18	6.8	7:00	7:54
23. Wed.	1:30	6.2	2:18	7.0	8:00	9:06
24. Thurs.	2:30	6.0	3:30	7.2	9:06	10:06
25. Fri.	3:42	6.0	4:36	7.5	10:12	11:12
26. Sat.	4:54	6.2	5:48	7.9	11:12	
27. Sun.	6:00	6.5	6:42	8.3	12:12	12:12
28. Mon.	7:00	7.0	7:36	8.5	1:06	1:12
29. Tues.	7:54	7.3	8:30	8.6	2:00	2:06
30. Wed.	8:48	7.6	9:18	8.4	2:54	3:06
31. Thurs.	9:36	7.6	10:06	8.1	3:42	3:54

To report violations or if you need assistance in the Coastal Area—Call—State Game & Fish Commission, Brunswick, Georgia, P. O. Box 1097, Phone 265-1552, Savannah 233-2383, Richmond Hill 756-3679

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NATIONAL FORESTS: TO CUT OR ENJOY?

In the business of conserving natural resources, you sometimes can get the delusion that everybody agrees with you, especially on a popular, well known issue like killing does out of season that most people put on a level of attacking God, Mother, and Country.

It's like a sudden dash of cold water in the face to wake up one day and find out that everything isn't peaches and cream, and everybody doesn't understand the value of wise use of our country's natural resources.

That was our reaction to the disappointing news that three Georgia congressmen and about 20 others from across the country have introduced identical bills into Congress to require maximum timber harvest on National Forests at the expense of recreational uses such as hunting, fishing, hiking, and camping, as well as vital watershed protection.

The legislation in question, sponsored by a national timber lobby group, would use all funds from the sale of timber on federal lands not otherwise earmarked for any purpose to be placed into a special "high yield" timber management fund, which would be used for such objectionable practices as killing hardwood trees valuable to wildlife to stimulate the growth of faster growing, more profitable pine trees which provide little or no food for wildlife.

These efforts to accelerate the decline of National Forests as public recreational areas come at a time when the U. S. Forest Service is already under fire for previous such "timberstand improvement" (TSI) efforts, along with its so-called "even age" timberstand management program of clear cutting hardwoods to encourage regrowth of pure pines.

Such efforts on the part of legislators, government foresters, and timber companies are directly opposed to the public interest on National Forest lands, which will be needed more for recreational uses in the near future than for timber supplies, especially in Georgia, where most timberland is already in private ownership. This private acreage is already under maximum timber management programs, to the detriment of maximum wildlife populations. Much of the smaller tracts are posted, and larger companies have begun leasing their lands to exclusive private hunting groups, or charging a fee to hunt. For thousands of Georgians, the 800,000 acres of our National Forests are the only place they have left to hunt, fish, camp, and sightsee as they once could do almost anywhere on private land. With almost every fence post around the growing major metropolitan areas sprouting posted signs like leaves, this problem will get worse.

Eleven of Georgia's best state game management areas are located on National Forest land in the Chattahoochee and Oconee National Forests. While the State Game and Fish Commission is spending over half a million dollars a

continued on page 16

ON THE COVER: The ravaged remains of Marbury Creek in Barrow and Oconee Counties, after channelization in 1966 by the U. S. Soil Conservation Service. For details on other channelization and drainage projects in Georgia, see "Our Ruined Rivers," by Game and Fish Commission Director George T. Bagby, on the opposite page. Color photo by Robert Howarth.

BACK COVER: The most recent map showing watershed projects of the U. S. Soil Conservation Service, and their stage of approval and completion. Nearly all of these projects include destructive channelization and drainage features in middle and south Georgia, while North Georgia projects include dams on trout streams that make the downstream waters too warm for trout.

PHOTO CREDITS: Ted Borg 5t. and b., 6t. and 6l., 8b, 9, 11, 13; Len Foote 4l., 5c., 6br.; Robert Howarth 3, 7; Dan Keever 10t.; Jim Morrison 4r., 8t., 10c. and b.; U. S. Forest Service 14 and 15.

This month, Georgia Game & Fish Magazine will not include its regular articles and departments on fishing, hunting, and conservation, so that we could present in full the following article and photographs on one of the most crucial and controversial issues to face Georgia conservationists in this decade. The Editor.

Watersheds Resolution

WHEREAS, it is the duty of the State Game and Fish Commission under the Constitution and laws of the State of Georgia to protect fish and wildlife, and

WHEREAS, the Commission and its Director have a staff of well-trained, experienced, conscientious, and highly qualified fish and game biologists, and

WHEREAS, public law 566 requires the State Game and Fish Commission to comment on the effects on fish and wildlife of small watershed projects, including stream channelization and draining of wildlife wetlands.

THEREFORE, be it resolved that the State Game and Fish Commission fully supports the right, obligation, and legal duty of its Director and staff to fully advise the public of any adverse effects of such proposed projects or any portions of them.

Unanimously Adopted March 20, 1969

JAMES DARBY, CHAIRMAN

by George T. Bagby,
Director
State Game and Fish Commission

OUR RUINED RIVERS

■ Once, it was a pretty little stream.

Clear, green water flowed between its even greener tree-lined banks, here and there dashing under the limbs of an overhanging tree, over a fallen log, around a few rock ledges.

In one of those darker green pools below an old log, a big catfish fanned her eggs in the nest like a quart of pearls. Nearby, a flaming orange redbreast bream in male spawning colors plucked a small aquatic worm from the gravel of the stream bottom. Further downstream below the rock shoals, a hungry largemouth bass woofed down a crawfish for lunch, while a crappie snapped up a small minnow, oblivious of a small boy quietly drowning worms near the bank.

Occasionally, a small boat would drift down the stream, its occupants charmed in the magic spell of ever changing green water and trees under white clouds and a blue sky. Sometimes, a young couple came to picnic on its banks and to laugh at the handprints of a raccoon on the mud of the bank, or to spy on a mother wood duck and her tiny brood swimimng downstream. High overhead in a big old oak, a family of grey squirrels chattered from the entrance to their tree hollow den, finishing up last year's stored acorns.

But that was a long time ago . . . "the good old days."

Now, the young man who drowned worms in the spring, and hunted the squirrels in the winter, was a father himself. Like him, his children would be able to drink in the wonder of the woods, and of the small, beautiful stream.

But instead of green water, a dingy, muddy stain met their dismayed eyes. The den tree where the squirrels played was gone, even the log in the water where the catfish built its nest. There were no wood ducks swimming the shallow, swift water, and no raccoon prints where a crawfish or a salamander had met its fate. There were no little boys with cane poles in their hands, or lovers playing on the banks, now stripped bare of their once beautiful foliage.

Sickened by what they had seen, the family turned bitterly away from the once beautiful stream, never to return again.

This is channelization.

The President's Council on Recreation and Natural Beauty made up of the Vice President, Secretary of Interior, Secretary of Commerce, T.V.A., and the Secretary of Agriculture (whose Department includes the Soil Conservation Service), and other department heads had this to say about federal water resource projects in their book *From Sea to Shining Sea:*

"The Council proposes that Federal flood control and other water resource development programs and projects seek to retain or restore natural channels, vegetation, and fish and wildlife habitats on rivers, streams, and creeks and apply the same policy to federally assisted public and private projects affecting rivers, streams, and creeks."

Under the provisions of Public Law 566, the U. S. Soil Conservation Service is authorized to plan and construct with federal money projects to prevent flood damage and erosion, and to store flood water for municipal and industrial water supplies, irrigation, and recreation.

Public Law 566 does not give veto power over these projects to state game and fish commissions. It does require the U. S. Soil Conservation Service to submit copies of plans to the state game and fish commissions and the U. S. Fish and Wildlife Service.

These two agencies are required by the law to make comments to the Soil Conservation Service on what effects the proposed project plans would have on fish and wildlife. This advice is not binding on the SCS in any way, and that agency can completely disregard the comments of wildlife agencies if they choose.

This has frequently been the case in the last decade since the 566 law was passed. Today, the game and fish agencies of most of our sister states are embroiled in constant conflict with the SCS because of the extensive and widespread damage these projects do to fish and wildlife habitat, primarily from dredging of stream beds and draining of wildlife wetlands, especially riverbottom hardwoods.

Such destructive projects are a national conservation issue. Only last October, the Southern Division of the American Fisheries Society adopted a resolution calling on the SCS, TVA, and the Corps of Engineers to halt any further watershed projects until an economic evaluation can be made of the value of fishing, hunting, boating, and other recreational values of the small streams affected.

Our sister wildlife agencies in the states of North Carolina, Tennessee, Alamaba, and Louisiana, to name only a few, have strenuously protested this destruction. Their position has been supported fully by the Southeastern Association of Game and Fish Commissioners, and by many state and national conservation organizations. In this connection, I would like to quote a statement by Mr. Charles Kelley, Director of the State of Alabama's wildlife agency, made in his report as president of the Southeastern Associ-

CHANNELIZATION

Downstream from the straightened section shown on the cover, a ruined Marbury Creek in Barrow and Oconee counties near Winder shows the scars of recent channelization in 1966. First, bulldozers removed trees on the banks 30 to 100 feet back on each side, followed by dredging of the stream bed with draglines, and spreading of the dredged material by bulldozers.

CLEARING AND SNAGGING

Would you call this a beautiful stream? Some sections of Marbury Creek were only stripped bare of vegetation on their banks by bulldozers, without dredging the curves and bottom of the stream bed by draglines. While the damage to wildlife and fish habitat is less than channelization, fishing and hunting suffer drastically. Instead of opening up log jammed streams to boats, a shallow, muddy stream flow results which discourages floating. This severe clearing with heavy construction equipment is not needed to open up boat trails for fishermen, hunters and canoeists.

NORTH GEORGIA
Disappearing Trout Streams

Like a bird that fouled its own nest, a giant bulldozer gnaws away at the hillsides over the location of a "flood control" dam built in 1966 by the U. S. Department of Agriculture's Soil Conservation Service on Jones Creek north of Dahlonega, once the finest native trout stream in the State Game and Fish Commission's Blue Ridge Game Management Area, located on Chattachoochee National Forest lands.

Erosion from construction of the $300,000 federal dry dam that almost nobody wanted virtually destroyed trout fishing in Jones Creek for years afterward. Trout starved to death after silt blanketed the stream bottom. Only 27 acres of earth were moved to build the dam, considerably less than is disturbed in most channelization projects. Asked about logging in construction of the dam today, SCS officials admit that "Jones Creek was [illegible] lake."

ation of Game and Fish Commissioners at their 1967 conference in New Orleans:

"A major problem existing in my state at this time concerns watershed projects. The original concept was to design, through federal assistance, watershed projects in such a manner as to improve the renewable natural resources within the watersheds. From the very beginning, public monies have often been used to develop agricultural resources which directly benefit the individual landowner at the sacrifice of such public resources as fish and wildlife: the loss of which is felt by many people. From the trout streams in North Carolina to the shores of the Gulf Coast, channelization has played havoc with our valuable fish and wildlife habitat.

"Fish and wildlife losses, as a result of channelization of one watershed stream when examined alone, may appear to be insignifiicant. Not only will stream channelization destroy the fishery resource of the watershed stream itself, but channelization destroys the spawning habitat for such species as walleye, sauger, and white bass. Without adequate stream spawning habitat, these species will ultimately disappear or be greatly reduced.

"Not only is channelization detrimental to the fishery resources, but it destroys feeding and occupational habitat for a number of game and furbearing animals and the wood duck.

". . . If fish and wildlife losses were given proper consideration as a factor in arriving at the cost benefit ratio of the watershed, I am sure that in many cases impoundments would replace channelization in order to arrive at a cost benefit ratio figure which would assure federal funds for the project.

"Fish and wildlife organizations can no longer stand still and watch our natural stream areas turned into man-made ditches devoid of fish and wildlife. We must continue our efforts to gain greater appreciation of our fish and wildlife resources, or most surely we will suffer to an even greater extent in the future."

The destructive effect of channelization and drainage on fish and wildlife is well documented. A study by the North Carolina Wildlife Resources Commission of 23 streams that have been channeled shows that 90 per cent of the game fish were lost, both by weight and number. It is important to note that 40 years after channelization there was no signifiicant improvement in the fish population.

A recent report of the State of North Carolina on SCS channelization projects contained the following section:

"Of three completed projects in eastern North Carolina, we can point

Today, Jones Creek disappears into a 420 foot long culvert through the base of the dam at the end of a raw channelized ditch. Since no water is permanently impounded by the dam, the temperature of the water below it is not warmed too much for trout, the usual result of building an upstream lake on a trout stream. However, adult trout upstream migrate downstream through the pipe and are unable to return later to spawn, a serious blow to fishing in the once productive upper section.

MIDDLE GEORGIA A BIG PROBLEM ON LITTLE RIVER

BEFORE

Actually not a before picture, the downstream enchanelled view of Little River off the Georgia Highway 5 Bridge between Marietta and Woodstock today illustrates how most of this once picturesque stream looked for its entire length above Lake Allatoona until it was channeled down to this spot.

DURING

The upstream view from the same Georgia 5 bridge shortly after channelization construction stripped Little River's banks of trees and vegetation in 1966 illustrates why every rain sent tons of silt boiling into the Little River section of Lake Allatoona, which three years later is still the last portion of the 12,000 acre reservoir to clear up in the summer. Similar projects on other Allatoona tributary streams like Pumpkinvine Creek are being actively proposed by the SCS. (See the list and map on the back cover)

AFTER

Today, some vegetation has returned to Little River's banks, but once popular catfishing has been destroyed, and local fishermen have abandoned it to a few small minnows, carp, and suckers. Stream bank habitat for wildlife has been severely damaged.

What happened to fishing in Little River? The nearly uniform beds of constantly shifting sand and silt tell the story. Small aquatic worms, crustaceans, and other organisms that fish live on cannot survive in such abrasion. In addition, muddy water stunts sunlight stimulated growth of plankton that small fish feed on. Their food supply destroyed, game fish decline drastically after channelization.

Stream bank habitat for wildlife on channeled streams like Little River is severely altered. Where old hollow den trees once sheltered squirrels, wood ducks, and raccoons, only tiny young sycamores remain that will be useless for wildlife until the next half century, if they were left undisturbed. However, most watershed channelization projects require local counties to cut such regrowth when it passes the brush stage. County commissioners on Armuchee Creek in Floyd County near Rome plan to accomplish this with spraying of a powerful plant herbicide to kill the bank vegetation back, which usually features tangled briars higher than a man's head.

The crumbling bank of a side ditch on Little River is an invitation to adjacent landowners to construct smaller ditches or tile drains of their own on the larger ditch built with federal tax funds. Such ditches would not be possible without the SCS project. Frequently, another federal Department of Agriculture agency, the Agricultural Stabilization and Conservation Service (ASCS), will provide up to 50 per cent of the farmer's cost of such side ditches to drain swamplands valuable to wildlife, even though such areas in the stream flood plain are still vulnerable to heavier floods than the stream ditches are designed to prevent.

to none which has not been highly destructive to wetland wildlife. Of several projects currently in the planning or active state, we can point to none for which the final approved plans include adequate provision for the protection of wetland wildlife resources."

A study of a stream before and after channelization was made by the Mississippi Game and Fish Commission. Before channelization, the Tippah River had a good population of large size game fish, averaging 240 pounds per acre. After channelization, that poundage dropped to only five pounds. Where the stream originally contained five bass averaging about two pounds each in size, the same area after channelization contained four bass with a total combined weight of two-tenths of a pound all together. Where fishing was once good for crappie, bluegill, and flathead catfish, none were found afterwards. Instead, the study area contained 1,480 minnows and 18 game fish weighing five pounds, compared to the previous 887 game fish and minnows weighing 240 pounds.

In the event that any interested person would like to have a copy of these scientific studies, we will be happy to send them a copy.

We all know that drainage of wetlands means the annihilation of ducks and other waterfowl. Such areas serve as refuges for deer, rabbits, squirrel, raccoon, and many species of furbearing animals.

There are 166 of these watershed projects already planned on every major fishing stream or lake in Georgia or just upstream from it, out of a potential total of over 300. Each one of them includes plans for dredging streams and draining wetlands that are essential for wildlife. Forty-one of these projects have already been approved for construction, and 22 have been completed. 103 applications are pending. A list of these projects is printed with this article.

We have seen these projects and the destruction that they have already caused to wildlife and fishing in Georgia. You can see it for yourself at the locations shown on the map of completed projects. You can see the pictures of some of these projects here: judge for yourself the destruction that they have done.

But first, I want to clarify the position which our department has taken on the watershed projects proposed on the Alcovy River and two of its major tributaries above Lake Jackson in Gwinett, Walton, and Newton counties, Flat Creek and Cornish Creek.

The channelization and drainage of the Alcovy River and its swamps above Lake Jackson as presently planned by the Soil Conservation Service will do

SOUTH GEORGIA
"YOU CAN'T CATCH FISHES IN SCS DITCHES"

Once a popular local fishing stream for bream, Little Satilla Creek in Appling County became a ghost stream after channelization by the Soil Conservation Service in 1965. In most sections of Southeast Georgia, such streams are the only public waters open to fishermen, since there are no large reservoirs there, and private farm ponds are scarce.

A scientific study of 23 channeled and 29 natural coastal plains streams similar to Little Satilla Creek made by the North Carolina Wildlife Resources Commission indicated a 90 per cent loss of game fish by both weight and numbers in streams channeled over a 40 year period, with no significant recovery of the fish habitat. Stream bank habitat for wildlife has also been virtually destroyed on the Little Satilla.

THE SOUTH RIVER

50 per cent of metropolitan Atlanta's municipal sewage flows into the South River, one of the three tributary streams of Lake Jackson to the south. Already with a population of over a million and a half people, Atlanta has been predicted to become the world's most populous city in the next century, boosting the current levels of municipal and industrial wastes to a fantastic mark, even though existing treatment facilities and methods are woefully inadequate. Although oxygen depletion from decaying sewage has destroyed fishing and recreational uses of the South River, paradoxically, the sewage now actually serves to make Lake Jackson the most fertile reservoir in Georgia when it finally reaches the lake. But too much enrichment from nutrients contained in rapidly increasing amounts of sewage someday may result in Lake Jackson becoming a dead or dying lake (like Lake Erie) choked with undesirable weeds and green slime, dotted with the rotting underbellies of suffocated dead fish. If the South River was the only stream flowing into Lake Jackson, such a disaster might have already occured on a hot summer night. The destruction of the high water quality of Jackson's main clear water tributary, the Alcovy, through drainage ditch construction, could have the effect of speeding up the biological "aging" of Lake Jackson, hastening its doom by decades.

THE YELLOW RIVER

Adding to the concern of biologists and water chemists for Lake Jackson's future is another tributary, the Yellow River, as polluted with silt as its name implies from heavy agriculture and by granite dust washed into the stream for many years from granite quarrying operations. Even though these industries now treat their wastes with settling ponds, sediment already in the stream is stirred up anew with each heavy rain, slowly washing its way downstream into Lake Jackson for years to come.

THE ALCOVY RIVER

Only the Alcovy River is a relatively unpolluted tributary of Lake Jackson. Rising in Gwinnett County, it skirts the western edge of Monroe as it flows through Walton County into Newton, just east of Covington, and then into Lake Jackson. The State Water Quality Control Board says that there is virtually no municipal or industrial sewage pollution on the Alcovy, which stays virtually clear year around because of the many wooded forests and swamps in its upstream watershed drainage area. Relatively unknown to most people in Atlanta and other parts of the state, the Alcovy has for years been locally popular as a fishing and hunting stream with an inner circle of more knowledgeable sportsmen, including Charles Elliott, the well known field editor of Outdoor Life *Magazine who lives nearby in Covington. Recently, the Alcovy was suggested as a possible State Scenic River by the Georgia Natural Areas Council, both because of its wild primitive beauty, its relatively undeveloped condition, and its proximity to metropolitan Atlanta with its mushrooming need for more natural areas for outdoor recreation, canoeing, fishing, hunting, and camping.*

Only the clean waters of the Alcovy essentially help, rather than threaten, the water quality of Lake Jackson. But these important roles of the Alcovy are threatened by two SCS watershed projects which will result in the destruction of most of the habitat for fish in the stream and the ruining of one of its banks for wildlife as a result of more than 80 miles of channelization, which would eliminate islands and fallen trees from the bed of the stream, as well as all vegetation from 30 to 100 feet back from the stream on one channeled bank extending to within 12 miles of Lake Jackson, with clearing and snagging to within six miles of the lake.

4,000 ACRES OF SWAMPLANDS

As a result of the two watershed projects, SCS technicians in their work plans estimated that it would be possible for private landowners to drain over 4,000 acres of swamplands in the Alcovy flood plain and place the acreage into row crop production, a move that is in direct conflict with other federal agricultural policies designed to reduce or hold down the amount of cropland in production, rather than increase it. While these mostly virgin swamplands were invaluable habitat for waterfowl, furbearers, deer, squirrel, raccoon, cane-cutter rabbits, etc., they also play a significant role in settling silt out of flood waters, returning it to the Alcovy in low water periods in a cleaner, purer condition than they received them. Erosion from new bare ground croplands where swamps once stood will increase siltation.

But even persons who don't hunt or fish at all are determined to protect their mystic beauty. The crystal clear water of the tupelo gum swamps is marvelously reflective of the sky, making it difficult to tell which side is which when the picture is held upside down. That a primeval mystery land that was created before the Indians came to Georgia should still be able to exist in its natural state so close to a city like Atlanta surprises and delights new admirers of its green beauty. But now, the days of the swamps apparently are numbered.

View this Picture Upside Down

irreparable harm to the wildlife and scenic values of this unique wild area on the edge of the greatest metropolitan area in the Southeast. Increased sedimentation caused by the construction of the channels will threaten the last remaining source of pure water in Lake Jackson, the favorite fishing spot of middle Georgia.

The false statement has been deliberately and maliciously made that the State Game and Fish Commission and its director have opposed the approval of the Alcovy River and the Flat Creek-Cornish Creek Watershed Projects. This is a barefaced lie. We are not trying to kill these two projects. We don't have that authority. We are not trying to keep these three counties from having four large lakes for recreation and municipal and industrial water supplies. We are in favor of them, and have publicly stated that we would stock these lakes and 11 smaller reservoirs and several hundred smaller farm ponds free of charge and that our fish biologists would help to manage them to produce the best possible fishing for an impoundment of this type. We have not opposed planting cover crops and wildlife food patches. We would favor opening up boat passageways through the Alcovy for fishermen, hunters, and boaters.

We have objected to one portion and one portion only of the proposed watershed plans, and that is the channelization and drainage of the Alcovy River above Lake Jackson.

Our Department has asked the Soil Conservation Service to revise their watershed construction plans to eliminate objectional channelization. They have refused to even consider our protests. For this reason, we are asking Congress and the President to delay approval of funds for the two projects until such time as the Soil Conservation Service will agree to include in their construction plans adequate protection for the Alcovy River and Lake Jackson, including the elimination of all channelization between the upstream dams and Lake Jackson.

Under the provisions of Public Law 566, we are required to make comments on the effects of the Alcovy Watershed Project on fish and wildlife habitat. We did not ask to make these comments. We were invited to make them at a meeting in Monroe by a letter on February 7, 1969 from Mr. Cecil Chapman, State Conservationist of the U. S. Soil Conservation Service. Previously, in our letter of August 23, 1968, we concurred with a report by the U. S. Fish and Wildlife Service that the Alcovy Project as presently designed by the U. S. Soil Conservation Service would adversely affect fish and wildlife habitat.

We have never approved the Alcovy Project from the day when we were first officially notified of it, years after it had been sold to the local landowners by the Soil Conservation Service. We have never changed our position on the Alcovy Project or any other destructive dredging or draining proposals. Our files are filled with letters this department has written the SCS for years and years objecting to such practices. We have held many meetings with the SCS to register our complaints, but they have gone virtually unheeded.

We were asked to comment on the Alcovy Project, as well as required to by public law. We have made public our biological comments on the adverse effects that the channelling and draining portions of the project plan will have as it is now drawn. We have no other step to take. Our department cannot veto the project. It is the responsibility of the Soil Conservation Service and the watershed group to weigh the testimony that we have given them to the best of their ability, and then take whatever action in regard to the project that they wish, subject to the approval of congress. The matter is out of our hands.

While we do approve of the 15 small reservoirs on warm water streams in this project, we don't believe that it is necessary to destroy the streams and swamps below them in order to build the lakes. There is no doubt that draining the 4,000 acres of swamps will destroy the wildlife that depends on them for their existence. Channelization of miles of stream on the Alcovy and its tributaries will destroy the fishing in them. Even the biologists of the SCS admit this. We believe that this destruction will also adversely affect fishing in Lake Jackson as well. The watershed plans could be changed to prevent this damage. Enlarging the reservoirs instead of channeling the river is the obvious answer.

The engineers of the SCS tell us that the channel they will dredge in the Alcovy won't fill up with silt, because of the swift, shallow water flow that will be created. If the silt from this seven-year construction project won't fill up the Alcovy River channel above Lake Jackson, then where will it go, except straight to Lake Jackson?

What will happen when the swamps are drained where the silt from flood waters once settled out, before it reached Lake Jackson?

The Alcovy River section of Lake Jackson is seldom the red mud color of the Yellow River and South River sections, even in the winter. In the early summer it is the first section of the lake to clear, producing good largemouth bass and crappie fishing for 80,000 Georgians and more than 800 lake cab-

8,000 ACRES OF WOODLANDS

Equally disturbing in the SCS work plans for the Alcovy River and Cornish Creek-Flat Creek Watershed Projects are statements that stream channelization and swamp drainage will make possible the cutting of over 8,000 acres of bottomland hardwoods to convert this massive deer and forest game habitat into pasture grass, which has little value to wildlife, especially deer, which are primarily brousing, rather than grazing animals. Although deer occasionally eat winter grasses such as fescue or rye grass, they prefer the leaves of many brushy plants and herbs if they are available.

Grass patches on Georgia's game management areas are planted primarily as bugging areas for young turkeys, rather than for deer. Because of the popularity of the fast growing pine tree for commercial timber in Georgia, little hardwood mast producing timber is found outside such river bottom hardwood areas as surround the Alcovy River's swamp lands.

Unknown to most of the general public and many sportsmen, deer thrive and multiply in river bottom swamps, utilizing their heavy cover and the standing water areas to throw pursuing dogs off their scent. This is the reason that deer were never wiped out by dogs and poachers in many sections of Southeast Georgia where such swamps are more common, in spite of constant hunting with dogs. Significantly, deer were never stocked in Newton or Walton Counties by the State Game and Fish Commission, but instead moved into both counties through natural population expansion from stockings in Jasper County, moving slowly northward in the protective cover of the Alcovy River and its 4,000 acres of swamplands. These same areas have the potential of serving as a refuge for wild turkeys, with adequate restocking and protection from illegal hunting. An examination of a map of the distribution of deer and turkeys in Georgia clearly shows that river swamps serve as lanes of travel and expansion for growing deer herds and turkey flocks, as well as the primary feeding and resting areas for thousands of native and migratory wild ducks.

Significantly, the largest deer rack taken during the 1967 Georgia hunting season was bagged on pulpwood company lands in Newton County bordering the heavy protective cover of the Alcovy River and its swamps. Without them, the trophy buck would have had a much more difficult time reaching his prime without falling victim of uncontrolled dog packs or illegal hunters.

For Lake Jackson . . . A Promise or a Threat?

In three months of 1966 alone, more than 80,000 fishermen caught over 300,000 crappie from Jackson, many of them a half pound in size or better. These fishermen spent over half a million dollars as a result which benefited the local economy. Bass fishermen saw similar improvement as a result of the stocking of threadfin shad, and from the return of over 8,000 bass under 10 inches long to the water under a new Commission enforced size limit. However, the growth of both crappie and bass in Jackson is tied directly into the welfare of the tiny threadfin shad, that feed directly on plankton, the tiny one celled plants and animals that color the water green in the summer. In relatively clear waters, the growth of these organisms is greatly stimulated by sunlight, especially if nutrients are being added to the water. But with muddy water, their growth is stimied, and so is the growth of species like bass and crappie that feed on them.

If ditching and drainage on the Alcovy River results in a longer period of muddy water in a substantial portion of Lake Jackson, fishing on the entire lake will suffer as a result, along with swimming, boating, and esthetic appreciation of the lake by its 800 lake front property owners, many who live on the lake permanently or plan to retire there.

Setting like the neck of a funnel drawing in the clean waters of the Alcovy to mix with the pollution of the South River and the Yellow River, Lake Jackson has reached the right blend, with a heavy helping hand from fish biologists and wildlife rangers of the State Game and Fish Commission. These efforts paid off in 1964 when the Commission successfully introduced threadfin shad, a small forage fish of bass, crappie, white bass, and even bream and catfish, into Lake Jackson. When the tiny fish began reproducing by the millions, Jackson's overpopulated and emaciated crappie and bream population went on an unprecedented feeding binge.

in owners and their families. Fishermen spend well over half a million dollars a year as a result of fishing trips there. In three months in 1966 alone, more than 300,000 crappie were caught in Jackson. With its clear water in the Alcovy arm, Lake Jackson is more fertile than any reservoir in Georgia, with a rich green plankton bloom just like a well-fertilized farm pond. But with muddy water, it would be no more productive than any muddy pothole spurned by fishermen. Muddy water prevents plankton bloom in the water that is so important in feeding fish. It interferes with their reproduction and it makes them harder to catch.

This is especially disturbing at a time when the State Game and Fish Commission is spending thousands of dollars on research and management programs on Lake Jackson designed to improve fishing there which are dependent on a high water quality in the Alcovy River. This spring the Commission stocked 150 adult white bass into Lake Jackson in an effort to establish this popular game fish there. At the same time, we have outlawed commercial fishing with nets in the Alcovy and in the lake to help these fish to enter the river on their annual spring spawning run, to populate the lake naturally. Wildlife rangers of the Commission are spending a great deal of time patrolling the river mouth to prevent illegal poaching there.

Since the Alcovy is the most unpolluted stream flowing into Jackson, it is essential if white bass are to succeed there, since the Yellow River is heavily silted and the South River receives a large portion of the City of Atlanta's untreated raw sewage. For this reason, only the Alcovy is suitable for white bass spawning, and that could be ruined by channelization produced siltation, high temperatures, shallow water, and swifter, fluctuating current.

In addition, the U. S. Fish and Wildlife Service only recently approved our request for 23,000 striped bass to stock in Lake Jackson this fall. These fish will congregate in the Alcovy in the spring attempting to spawn, producing good fishing. This fishery may be wasted if the Alcovy is made into a shallow, but swift, muddy water ditch.

The Soil Conservation Service would have us believe that there will be no additional silt in the Alcovy as a result of this project. We aren't so sure. They don't mention the silt that will be flushed downstream while the bulldozers, the draglines, and the dynamiters are working, let alone the erosion ditches and gullies that will form at every rain.

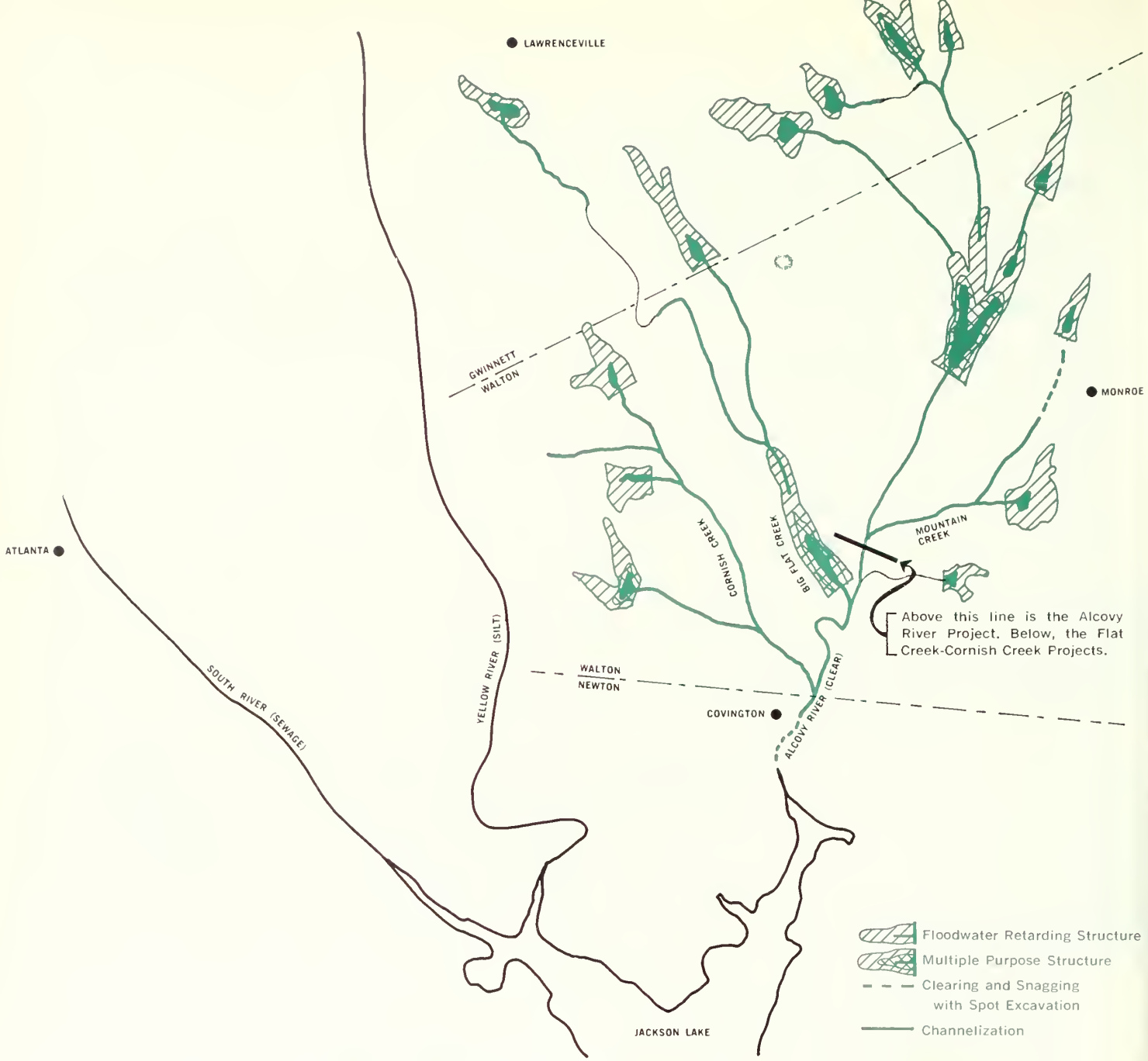
It should be clearly understood that the State Game and Fish Commission is in full agreement with the principles of watershed management and flood control. However, in the case of the two watersheds in question, we are not satisfied with provisions of the plans for alteration of the flood plain lands for agricultural production. It is our understanding of Public Law 566 and regulations established for its administration that drainage ditches and channelization will not be carried out for the purpose of creating additional farmland.

However, figures in the two work plans indicate that 4,327 acres of swamp land areas will be drained, apparently for this purpose. In addition, the reports indicate that 8,652 acres of forest land will be cleared, primarily to create pastureland, which could easily be converted to crop land. These plans say the annual benefits of this will be worth $105,000 a year. Channelization costs listed in the reports to accomplish this would cost over three million dollars, which could mean that it would take almost 30 years for the benefits of drainage to match the cost. By that time, the future recreational or educational uses of the swamp lands might exceed their value to the public as drained land, either agricultural or as a subdivision.

Channeling 80.8 miles of these three streams to make possible the drainage of 4,327 acres of privately owned swamp land as proposed by the SCS will cost the U. S. taxpayer $3,494,432 for construction and engineering costs, or $807.77 dollars an acre, which is almost three times the existing value of the land, based on the SCS estimate of $300 an acre.

An exciting promise of greater things to come for Jackson was the announcement by the U. S. Fish and Wildlife Service that it planned to give Georgia 23,000 striped bass up to 10 inches in size to stock in Lake Jackson in the fall of 1969, an average of six fish per acre, or roughly twice the ratio of past trout stocking in Lake Lanier which produced real excitement in the Georgia fishing world that can easily be exceeded by striped bass.
Stripers have reached 55 pounds in size in a freshwater South Carolina lake, 63 pounds in a freshwater Georgia river, and 73 pounds in the Atlantic Ocean. With an ample supply of threadfin shad to feed them, these small fish should grow rapidly and soon reach sizes of over two pounds after their first year, which is three to six times as fast as largemouth bass grow.
But if muddy water curtails the production of shad, the striped bass will suffer as well. While they may not be able to spawn in the relatively short distance of running water in the Alcovy, stripers almost certainly

will congregate there in the spring attempting to spawn, producing the best fishing spot for them, unless the Alcovy is a shallow, swift, muddy water drainage ditch.



THE ALCOVY RIVER AND FLAT CREEK-CORNISH CREEK WATERSHEDS

Separated into two projects because of its original size, the work on the Alcovy and its two main tributaries will cost the federal taxpayer more than seven million dollars, with over three million devoted to channelization to make possible drainage of over 4,000 acres of long, narrow swamplands at an average cost per acre of over $800, even though the land is considered worth only $300 per acre now, according to the SCS work plan.

The two projects include 15 small dams, including 4 larger lakes which have multiple purposes in addition to agricultural flood control. These four lakes will also be used for municipal and industrial water supplies for future expansion by the cities of Monroe and Covington, and for recreational park purposes in Gwinnett and Walton counties. These four lakes probably will be open for public fishing, but the other 11 will not, unless the adjacent landowners allow it. Since lots can be sold on the 11 essentially private lakes, real estate speculation so near to rapidly expanding Atlanta plays an important role in securing the support of landowners for watershed projects.

But with the two Alcovy projects, the main issue lies with the more than 80 miles of channelization proposed by the SCS, rather than with the 15 small dams, which result in only temporary siltation of the stream during construction. Channelization creates permanent siltation conditions both during and after construction because of sloughing off of the steep bank, lack of vegetation on spoil banks, removal of old logs and tree roots on the bank, straightening of stream bends, and drainage of clarifying swamps. Especially objectionable is the channelization shown on the map below the last three dams downstream in the two projects, but only 12 miles upstream from Lake Jackson. (Snaging extends within six miles.) Because there are no dams between this channelization and the lake, siltation caused by channelization in this section won't have a chance to settle out, but will instead flush directly into Lake Jackson. Channelization upstream from the small dams is also questionable, but would not be as harmful, since much silt will settle out behind the small dams.

The taxpayers of Georgia eannot understand why the federal government should take our tax money to ereate additional acres of croplands, while at the same time it uses our tax money to pay landowners to keep land out of production through programs like the soil bank, while plaeing aereage allotments on crops, purchasing and storing surplus crops, also with our tax money. It doesn't make sense to them, or to me.

We wish to make it elear that we are not opposing the philosophy of federal help to private landowners. We are not opposing the right of the landowner to manage his land as he sees fit, as long as he is spending his own money to do it. We are opposing the destruetion of publicly-owned natural resourees through the expenditure of public funds. Sinee the wildlife found on these lands is the property of the State of Georgia, we are very much coneerned with any publicly-finaneed project which would be detrimental to fish and wildlife values. In our view, any such projeet would be similar to a situation in which the State Game and Fish Commission might use public funds to build a duck pond that might flood out part of Interstate 20, also built with public funds.

We are very much disturbed to see an agency of the U. S. Department of Agrieulture proposing the drainage of a large acreage of wetlands, while at the same time another federal ageney in the Interior Department is spending millions of dollars to preserve and develop wetlands for waterfowl.

It doesn't make sense for one federal ageney to be destroying wildlife habitat as fast as it ean, while another federal agency tries to preserve it. During the last 20 years, drainage projeets like those of the U. S. Soil Conservation Serviee have destroyed three to four million acres of bottomland hardwoods in the Southeast of significance to waterfowl. At the same time, the U. S. Fish and Wildlife Serviee has only been able to purehase 158,751 acres of wintering ground habitat for waterfowl from 1948 to 1968 at a eost of $12,043,325 in duck stamp funds of sportsmen. It does not take a mathematician to realize that wildlife and the seenie beauty of our country are on the losing end, and that our money is being wasted.

At a time when the number of hunters and fishermen in our state and nation are rapidly increasing, we can searcely afford to wantonly destroy the remaining vestiges of wildlife habitat that eivilization has so far spared from the bulldozer and the dragline.

By the same token, the 4,327 aeres of wetlands for wildlife that would be drained under this plan represents more aeres of waterfowl habitat than is owned by the State of Georgia today.

The total loss of valuable wildlife habitat that would be unfavorably altered by this plan exceeds the total acreage of many game management areas of the State Game and Fish Commission. In addition to the 4,000 acres of swamplands that will be lost to waterfowl, the more than 8,000 acres of forested land to be cleared for pastures would be essentially lost for deer and squirrel, two of Georgia's three most hunted species of wildlife.

The hardwood wetlands in question serve as resting, roosting, and feeding places for mallard, black ducks, and wood duck, which also nest there. In faet, they are the only duek hunting areas in Newton County. As a result, deer have become numerous enough for the State Game and Fish Commission to authorize a one day doe hunting season in the eounty for the past two years. It is also interesting to note that the largest Boone and Crockett Club deer raek of the 1967 Georgia hunting season was bagged by a hunter in Newton County, in the Alcovy River Swamp. Being close to Atlanta, the area receives heavy hunting pressure.

In addition to the primary species of ducks, deer, and squirrels, the wetlands provide a home for cane-cutter rabbits, raeeoons, and fur bearing species like mink, otter, muskrat, and beaver. They are potentially a refuge area for wild turkeys and bear. Dense stands of tupelo gum trees and their large annual crop of berries eaten by almost every wildlife species depend on the swamp conditions.

But if the 4,000 aeres of wetlands are drained and 8,000 acres of forests are removed, all of these speeies will virtually disappear from the area permanently, if the planned modifications are maintained in future years, as the work plan calls for. At the same time, they will not be replaced by cropland game species like quail or doves if the primary land use is to be pasture lands, since grasslands produce little food for either speeies.

In addition to game animals, draining of the wetlands and ehannelization of 80 miles of stream beds in the projeet areas will have a serious effeet on the fish population of the affeeted streams. The Aleovy River is a good fishing stream at certain times of the year, primarily for bream and catfish, although there is some bass fishing as well. Baekwater sloughs and pool areas that would be eliminated by ehannelization are the best plaees to fish, as well as important to maintain eooler temperatures in the pools. Their removal in a ehannelization projeet would tend to inerease water temperatures, making them less desirable for fish and the aquatie organisms they feed on. Removing the stabilizing influence of the tree root systems from the stream banks will result

LITTLE LAKES ... BIGGER AND BETTER

On the Alcovy projects and most other warm water streams, the State Game and Fish Commission has expressed its willingness to compromise with the SCS over the matter of constructing reservoirs, in return for reduction or elimination of undesirable channelization of streams. This position has met with little or no encouragement from the SCS, which has turned a deaf ear to suggestions that larger reservoirs would be more desirable than channelization, since they would provide a larger area for fishing, boating, and swimming, as well as more municipal and industrial water supplies, and more flood control, although 1800 acre Lake Tobesofkee at Macon is a prime example of such an SCS project lake and its benefits.

Although they do ruin downstream trout streams and flood out a section of wildlife habitat, dams and lakes generally don't harm fishing on warmwater streams, but they don't always help it either. The primary reason that watershed lakes seldom provide good fishing is the tremendous quantity of water that moves through them, especially during heavy rainfall periods, when the dams release 80 per cent of their flood pool within 10 days. As a result of this tremendous fluctuation and flushing, fertilization of such lakes is economically impossible. Because of the large watershed area feeding into them, they generally stay muddy, like the small lake pictured in the lower Tallapoosa Watershed Project in Carrol County. In addition, rough fish like carp, gar, suckers, and bowfin frequently outspawn game fish in such small impoundements, and flourish at their expense.

The best fishing created by a watershed project is in the farm ponds constructed as a result of government payments of 50 per cent of the cost of such small pond dams in approved watershed project areas. For instance, $500 of the cost of a $1,000 dam on a two or three acre farm pond would be paid by the federal government, a tremendous selling argument to local landowners to go along with objectionable channelization and the loss of farm land flooded by a watershed lake. (Sugar coating on a bitter pill.)

A federal program to provide lakes and ponds for water supplies and recreation without tying them down to backward agricultural flood control policies is an obvious need, but action by Congress, the President, or the Secretary of Agriculture must occur first

DEATH OF A TROUT STREAM ...AND BIRTH OF A NATIONAL HEADACHE

BEFORE

Close to its headwaters, a small trout stream in the Beaverdam Creek Watershed flows along in Johnson County, Tennessee, providing quality trout fishing in an agricultural area for a limited number of persons. Notice the feeding and resting pools for trout that move up to the foot of the small shoal area to feed at night.

AFTER

After channelization, the same small trout stream becomes a muddy water drainage ditch, deeper and wider than before, with a higher capacity to carry heavy rain fall away. Looking for natural stream life for trout to feed on? One observer said "I can't even see a crawfish." Protests from game and fish agencies and conservation organizations in every state of the Union are rising in alarm to similar federal projects in their state.

in greatly increased erosion of the stream bank that will not be adequately controlled by tall fescue and white clover. The movement of sand and sediment in the stream bottoms will be constantly accelerated, greatly reducing the amount of bottom organisms living there for fish to feed on.

The State Game and Fish Commission is seriously concerned about the siltation that inevitably will occur in the Alcovy during the project work, which will last over a period of at least seven years, if funds are provided on the planned schedule. This will be multiplied by what we believe to be unnecessary channelization which the stream will not recover from in the next half century.

Our Department is not opposed to the construction of small impoundments on warm water streams to provide for recreation, municipal and industrial water supplies, and flood control. However, we are unalterably opposed to destructive channelization features of projects such as the two on the Alcovy, and to dams on trout streams that make the downstream water too warm for trout.

The State Game and Fish Commission would not be opposed to making the Alcovy passable for small fishing boats or canoes by careful removal of trees blocking the main channel. This could be done without channelization or the use of heavy construction equipment. The State of North Carolina uses an amazingly effective winch utilizing a small portable chain saw motor to clear logs from fishing streams in eastern North Carolina, without disturbing the stream bottom or banks. Such a service by the watershed project in place of destructive channelization would be welcomed by the State Game and Fish Commission, sportsmen, and small pleasure boaters. With proper maintenance, the Alcovy would be one of Georgia's finest natural scenic areas so close to a major metropolitan area.

We feel that this aspect of the Alcovy as it is presently being used or as it could be used in the future for recreation has not received sufficient attention, in the two project work plans. In examining them, we are unable to find any economic figures for the loss of hunting, fishing, boating, or outdoor recreation benefits, present or future. For this reason, we feel that more study should be given to the proposal before final plans are drawn, and for a concentrated effort made to establish the fish and wildlife recreational and economic value of the Alcovy Watershed should it be allowed to remain unchanneled and with its swamps undrained.

However, based on our careful review of the Alcovy project work plans and the objections to them, it is our position that we cannot approve the projects as they have been presented to us, without further study of wildlife losses and alterations to the watershed plans to eliminate our objections.

We therefore called on the State Conservationist of the Soil Conservation Service and the regional director of the U. S. Bureau of Sport Fisheries and Wildlife to meet with us in an effort to restore these differences to the mutual satisfaction of all interested parties, before final plans are drawn.

But the Alcovy project is not the most frightening aspect of the small watershed program of the SCS. What disturbs me even more is the list of fine little fishing streams marked for destruction, running into every major lake and river in Georgia. We know that these channeled streams, these drained swamps, and dammed trout streams are gone during our lifetime, if not forever. In many sections of Georgia, there are no other places for the public to fish, or hunt.

When projects like the Alcovy threaten our irreplaceable wildlife resources, it is the duty and the obligation of the State Game and Fish Commission to inform the people what the effects of these projects will be, without being accused of irresponsible criticism, without being called liars, without being threatened with political reprisals. When the people have been fully informed of all the facts, we believe they will make the right decision, and that is the only right that we ask from the public.

In one of Robert Frost's poems he poses a question which is basic to the future of man on earth. He says,

"Nature within her inmost self divides
To trouble men with having to take sides."

I do not think he means that man must decide to be for nature and against development; but nature itself compels man to decide whether other life is to be allowed to survive along with man, or if all is to be subordinated to the human species. I believe that the Georgia Game and Fish Commission has a vital role in Georgia in taking the side of nature's creatures, in ensuring that we share our world with other species and in this sharing, I am convinced man becomes a better being.

Once man has laid his hand upon a natural environment, change begins to take place.

Unless he considers other species, this change will continue to destroy the conditions necessary for other forms of life until, eventually, man finds himself alone in his landscape. He cannot live for himself alone.

The Georgia Game and Fish Commission and the Soil Conservation Service both have responsibilities in

preservation and conservation of the environment required by wildlife. Together we can provide a measure of balance, a balance which we must have if we are to avoid being swallowed up by a complex, technological age in which man can too easily forget that he is but one part of a system of nature, the temporary custodian of a life that has been lived for centuries before and which must go on for centuries to come.

A hundred years ago there was room on earth for all the creatures of field and forest and enough left for man to reap his required harvest. Today man's needs have multiplied. His numbers have increased beyond the wildest dreams of earlier days. We must face the fact that this increase in numbers, this increase in needs for the resources will grow in geometrical measure.

We have little time left and we have much to do, yet we *are* considerably better placed now than once we were. Many Georgians *now* recognize that steps must be taken and taken soon and fortunately there are things happening. It has been said that the best time to plant a tree was thirty years ago, the second best time is today. The same is true for conservation. The best time to conserve the habitat necessary for our wildlife would have been fifty or a hundred years ago. The second best time is now. We can still save many of our wonderful streams without trying to restore them years from now at even greater cost than their destruction.

As Director of the Game and Fish Commission, I am committed to pursuing the ideal of conservation, of creating a balanced environment. I am convinced that our legal mechanisms for conserving the quality of our natural environment in Georgia and this country are incomplete and inadequate. Unless we direct ourselves *now* to improving these mechanisms and coping with this question, we will have to pay the price tomorrow, and we might not be able to meet the bill.

Man must learn to control his appetite for immediate benefits if his long term needs are to be met, before it is too late.

Now is the time we must decide if that little boy will be able to sit on the bank of a beautiful stream with his cane pole, or whether that stream will be in a ditch or behind a dam. The decision is yours.

(Letters of protest to the Alcovy-Cornish Creek-Flat Creek and other channelization projects should be sent to Georgia's two U. S. senators and the congressman from your district, care of either the Senate or the House Office Building, Washington, D. C.)

BULLDOZERS

Plowing its muddy path upstream, a bulldozer operated with federal tax funds on a private contract under supervision of the SCS deepens the steep sides of the channel, which one Georgian described as "too steep for a grown man to climb out of, let alone a woman, child, or elderly person . . . of course, they wouldn't have any reason to get into it, unless they fell into it, since there's no fishing left in it." National concern for the future quality of the world we are leaving those children is growing louder.

DRAGLINES

Following the bulldozer, the ever powerful dragline "dips" into the river to "clear out the sediment," as the SCS describes it. Always a sloppy procedure, dredging goes from bad to worse the minute it is carried on partially underwater, especially in a stream with a strong current. Rainfall during the period the channel work is going on washes raw exposed earth back into the stream, muddying the waters of the river, and of national conservation opinion. How long it will be until every foot of flowing water left in our country and in Georgia will either be behind a big dam, a little dam, or in a ditch?

Continued from IFC

year on such areas for wildlife law enforcement protection and habitat improvement, these efforts will be wasted if maximum timber growing programs take the upper hand on the federal lands where they are located. Some federal areas where state game management areas are located were purchased solely for wildlife purposes, such as the Clark Hill Game Management Area, and the Allatoona Public Hunting Area.

The very idea that timber interests would presume to muscle into such areas with their excessive demands is an outrageous affront to a million and a half Georgia hunters and fishermen who need these lands much more than a handful of powerful commercial interests concerned only with making money. Millions will enjoy using their national forests more if they are not cut over deserts covered only with little green pine trees and a pile of dead needles at their trunk. Georgia's National Forests have already been raped once by private timber companies and left bare. Only the government would have it afterward. It is doubtful if the thousands of persons who enjoy seeing the autumn riot of color on oaks and other hardwood trees in the North Georgia National Forest will make the trip to see row after row of pine trees, planted like peach trees in an orchard on every mountain and valley.

What can you do to prevent such a national sacrilege? There is still no greater weapon than a personal letter, card, or telegram to your congressman and two U. S. Senators, along with a special message to the three Georgia authors of timber bills: Reps. Ben Blackburn of Atlanta, Robert Stephens of Athens, and Elliot Hagan of Sylvania.

Maybe they just didn't know that you cared.—*J.M.*

(Write to the House or Senate Office Building, Washington, D.C.)

Sportsman's Calendar

SEASONS OPEN THIS MONTH

FISHING SEASON

All streams, lakes, and ponds of Georgia are open to fishing throughout the entire year with the exception of the mountain trout waters of North Georgia. See trout regulations for details. Sunday fishing is allowed.

DAILY CREEL LIMITS

Bream (Bluegill, Red Breast, and other species of Bream)	50
Crappie, Yellow Perch	50
White Bass	30
Largemouth Black Bass, Smallmouth Bass, Redeye Bass, and Spotted Bass or Kentucky Bass	15
Striped Bass or Rock Fish	5
Chain Pickerel or Jack	15
Brook or Speckled Trout, Rainbow Trout and Brown Trout	8
White Shad, Hickory Shad	8
Sauger, Walleye	8
Muskelunge	2
Channel Catfish	No Limit

There is a creel limit of five largemouth bass in Lake Russell, and the McDuffie Public Fishing Area. There is a creel limit of 25 sunfish of all species and five largemouth bass on Lake Worth. There is a creel limit of five largemouth bass, five chain pickerel, and 25 sunfish (including bluegill, warmouth, redbreast, stumpknocker, and round flier) on the Suwannee River. Channel catfish may not be taken on the Suwannee River.

POSSESSION LIMITS

No person may possess at any time more than 50 fish in the aggregate or total of all the species named except channel catfish and no more than 15 large or smallmouth bass, 30 white bass, or 8 trout of any or all species in the aggregate or total possession.

TIDE TABLE

JULY 1969

JULY, 1969

Day	A.M.	HIGH WATER HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Tues.	9:00	7.0	9:36	8.3	3:10	3:12
2. Wed.	9:54	7.0	10:30	8.0	4:00	4:12
3. Thurs.	10:54	7.0	11:24	7.6	4:54	5:06
4. Fri.	11:48	7.0			5:42	6:00
5. Sat.	12:18	7.1	12:48	6.9	6:36	7:00
6. Sun.	1:12	6.7	1:42	6.9	7:30	8:00
7. Mon.	2:06	6.2	2:42	6.8	8:24	9:00
8. Tues.	3:00	5.9	3:36	6.8	9:12	10:00
9. Wed.	3:54	5.6	4:30	6.9	10:06	10:54
10. Thurs.	4:54	5.5	5:24	7.0	10:54	11:42
11. Fri.	5.48	5.6	6:12	7.2	11:42	
12. Sat.	6:30	5.6	6:48	7.3	12:30	12:24
13. Sun.	7:12	5.7	7:30	7.4	1:12	1:12
14. Mon.	7:48	5.8	8:00	7.4	1:54	1:54
15. Tues.	8:24	5.9	8:36	7.3	2:36	2:36
16. Wed.	9:00	6.0	9:12	7.2	3:12	3:12
17. Thurs.	9:30	6.0	9:42	7.1	3:48	3:54
18. Fri.	10:12	6.2	10:24	6.9	4 18	4:30
19. Sat.	10:54	6.3	11:06	6.7	4:54	5:12
20. Sun.	11:36	6.5	11:48	6.5	5:30	6:00
21. Mon.			12:24	6.6	6:12	6:54
22. Tues.	12:36	6.3	1:18	6.8	7:00	7:54
23. Wed.	1:30	6.2	2:18	7.0	8:00	9:06
24. Thurs.	2:30	6.0	3:30	7.2	9:06	10:06
25. Fri.	3:42	6.0	4:36	7.5	10:12	11:12
26. Sat.	4:54	6.2	5:48	7.9	11:12	
27. Sun.	6:00	6.5	6:42	8.3	12:12	12:12
28. Mon.	7:00	7.0	7:36	8.5	1:06	1:12
29. Tues.	7:54	7.3	8:30	8.6	2:00	2:06
30. Wed.	8:48	7.6	9:18	8.4	2:54	3:06
31. Thurs.	9:36	7.6	10:06	8.1	3:42	3:54

GEORGIA COASTAL WATERS

HOW TO USE THESE TABLES

The calculations are for the outer bar. Find the reading for the desired tide. In the table below find the number of minutes to add to correct for the place you are going to fish or swim. The outer bar calculation, plus this correction, gives the correct reading for the point desired.

Adjust For Daylight Saving Time By Adding One Hour

CORRECTION TABLE

The times given are for Savannah River entrance (Tybee).

	Hrs.	Min.
Savannah High	0	44
Savannah (Low)	*	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabaw Sound	0	05
Vernon View	0	35
Coffee Bluff	0	55
Ogeechee River Bridge	3	50
St. Catherine Sound	0	25
Sapelo Sound	0	00
Brunswick Bar	0	00
St. Simon Pier	0	25
Frederica Bridge	0	50
McKay Bridge	0	50
Brunswick East River	0	50
Turtle River Bridge	0	55
Turtle River, Crispen Is.	1	10
Humpback Bridge	1	00
Jekyll Point	0	30
Jointer Island		55
Hampton River Village Creek Ent.	0	20
Village Fishing Camp	0	45
Taylor Fishing Camp	1	00
Altamaha Fishing Park, Everett, Ga.	4	00
Two-Way Fishing Camp, S. Altamaha	2	00

	Full Moon	Last Quarter	New Moon	First Quarter
JULY	28	6	14	22

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To report violations or if you need assistance in the Coastal Area—Call—State Game & Fish Commission, Brunswick, Georgia, P. O. Box 1097, Phone 265-1552, Savannah 233-2383, Richmond Hill 756-3679.

SCS WATERSHED PROJECTS IN GEORGIA

DECEMBER 31, 1968

COOSA RIVER FLOOD CONTROL PROJECT—SUBWATERSHEDS

1. Settingdown Creek*
2. Noonday Creek
3. Sharp Mountain Creek
4. Pumpkinvine Creek
5. Etowah River Reach
6. Little River*
7. Amicalola Creek*
8. Raccoon Creek
9. Cartecay River
10. Mountaintown Creek*
11. Talking Rock Creek
12. Stamp-Shoal Creeks*
13. Will-Canton Creeks
14. Ellijay River
15. Long Swamp Creek
16. Allatoona Creek*

*Completed Project

PILOT WATERSHEDS

17. North Fork of Broad River—Completed

PUBLIC LAW 566 WATERSHED PROJECTS—CONSTRUCTION COMPLETED OR ALL CONTRACTS AWARDED

18. Bear Creek
19. Rocky Creek
20. Sautee Creek
21. Barber Creek
22. Rooty Creek
23. Hazel Creek
24. Mill Creek
25. Hightower Creek
26. Palmetto Creek
26. North Broad River
28. Marbury Creek
29. Sandy Creek
30. Little Tallapoosa River
31. Haynes Creek-Brushy Fork Creek
32. Tobesofkee Creek[1]

[1] Except Recreation Facilities Contract

PUBLIC LAW 566 WATERSHED PROTECTION PROJECTS—APPROVED FOR CONSTRUCTION

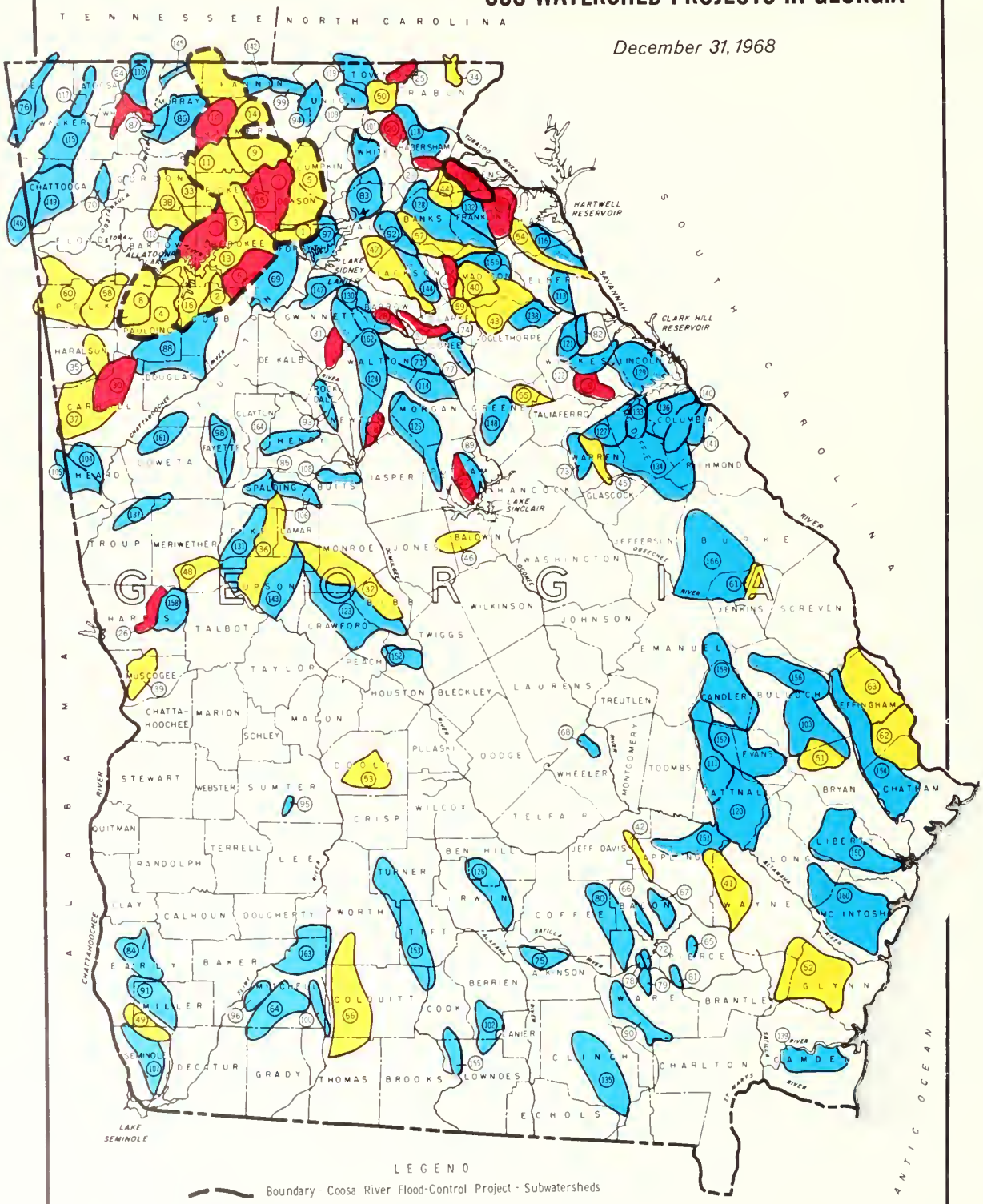
33. Sallacoa Creek Area
34. Head of Little Tennessee River
35. Little River
36. Potato Creek
37. Lower Little Tallapoosa River
38. Pine Log Tributary
39. Bull Creek
40. South River
41. Little Satilla Creek
42. Bishop Creek
43. South Fork Broad River
44. Middle Fork Broad River
45. Rocky Comfort Creek
46. Fishing Creek
47. Middle Oconee-Walnut Creek
48. Cane Creek
49. Dry Creek
50. Hiawassee River
51. Mill Creek
52. Turtle River
53. Pennahatchee Creek
54. Beaverdam Creek
55. South Fork Little River
56. Bridge Creek-Ochlocknee River
57. Grove River
58. Euharlee Creek
59. Little Sandy Creek and Trail Creek
60. Big Cedar Creek
61. Fort Lawton-Little Buckhead Creek
62. Eli Whitney
63. Ebenezer Creek

PUBLIC LAW 566 WATERSHED PROTECTION PROJECTS—APPLICATIONS RECEIVED

64. Big Slough
65. Walkerville Branch
66. Mill Branch
67. Ten Mile-Briar Creek
68. Little Creek
69. Big Creek
70. Johns Creek
71. Jacks Creek
72. Bay Branch-Mill Branch
73. Long Creek
74. Calls Creek
75. Pudding Creek
76. Lookout Creek
77. Rose Creek
78. Dryden Creek
79. Cox Creek
80. Hog Creek
81. Newbern Creek
82. Chickasaw Creek
83. Wahoo-Little River
84. Breastworks-Dry Creek
85. Wildcat Creek
86. Holly Creek
87. Mill Creek Area
88. Sweetwater Creek
89. Crooked Creek
90. Alligator Creek-Camp Branch
91. Aycocks Creek
92. North Oconee River
93. Snapping Shoals Creek
94. Young Cane Creek
95. Phillema Creek
96. Hopeful
97. Lake Lanier
98. Whitewater Creek
99. Hemptown Creek
100. Lost Creek
101. Tesnatee Creek
102. Cat Creek
103. Black Creek
104. Centralhatchee Creek
105. Hillabahatchee Creek
106. Cabin Creek
107. Fish Pond Drain
108. Yellow Water Creek
109. Arkaquah-Butternut Creek
110. Coahulla Creek
111. North Tattnall
112. Pettit Creek
113. Falling Creek
114. Hard Labor-Big Sandy Creek
115. Headwaters of the Chattooga River
116. Coldwater Creek
117. Peavine Creek
118. Soque
119. Brasstown Creek
120. South Tattnall
121. Clark Creek
122. Fishing Creek
123. Echeconnee Creek
124. Alcovy River
125. Little River-Indian Creek
126. Willacoochee Creek
127. Tri-Creek
128. Hudson River
129. Soap and Lloyds Creek
130. Upper Mulberry River
131. Elkins Creek
132. Middle River
133. Germany Creek
134. Briar Creek
135. Jones-Tatum Creeks
136. Kiokee Creek
137. Yellowjacket Creek
138. Millstone & Long Creek
139. Woodbine Area
140. Little Kiokee Creek
141. Uchee Creek
142. Fighting Town Creek
143. Swift-Tobler Creek
144. Curry Creek
145. Sumac Creek
146. Mills Creek
147. Suwanee Creek
148. Richland-Beaverdam
149. Chattooga River
150. Newport-Jericho Area
151. Ten Mile Creek
152. Sandy Run Creek
153. Little River
154. Little Ogeechee
155. Frank's Creek
156. Mill Creek and Bay Gall
157. Evans County
158. Mulberry Creek
159. Fifteen Mile Creek
160. Big Mortar-Snuff Box Swamp
161. Cedar Creek
162. Upper Apalachee River
163. Riverbend-Baconton
164. Walnut Creek
165. Bluestone Creek
166. Buckhead

SCS WATERSHED PROJECTS IN GEORGIA

December 31, 1968



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Firm to Press Plan to Mine off Savannah

Savannah, Ga. (AP) — A. F. T. Seale, senior vice president of Kerr-McGee Corp., says his company still plans to mine phosphate on islands off this coastal city.

The oil company official said Monday that Kerr-McGee "was not backing off" from plans to mine phosphate on Little Tybee and Cabbage Island and would possibly reopen negotiations with other state-owned islands in the area.

Last year, a statewide controversy erupted over Kerr-McGee's mining plans. Finally, efforts by the company to secure a lease to approximately 25,000 acres of state-owned offshore marshlands failed when the Georgia Mineral Leasing Commission let a time limit expire.

Attorney General Arthur K. Bolton then held that the question settled after no action was taken by November 30, 1968 deadline.

Many private citizens and state conservationists claim the offshore mining would cause heavy pollution in the area.

Seale, however, said his firm is "keeping its (mining) plans alive," despite the city being "hostile to phosphate mining."

The Atlanta Journal, June 9, 1969.

THE MONEY CHANGERS ARE STILL IN THE TEMPLE

When outraged public opinion and legal delaying action forced the State Mineral Leasing Commission to drop plans to give away the pearl of Georgia's coast last year, most people relaxed their guard, confident that the victory had been won.

The truth of the matter is that while a battle was won, the war was not.

Efforts to enact strong legal protection for Georgia's virtually unspoiled coast failed to make the grade, largely because of a lack of public expressions of support for them, coupled with the vociferous opposition of industrial interests already entrenched on the Georgia coast who have glimpsed the handwriting on the wall.

These powerful companies make their weight felt in local and state politics through large campaign "donations," and they employ full time lobbyists who know how to stop conservation legislation, unless public support is overwhelming.

The very fact that the phosphate lease in Chatham County was not granted to the Kerr-McGee Corporation of Oklahoma proves that the power of the people on a conservation issue can be successful in spite of such odds. If the same wave of public sentiment had occurred while the Georgia General Assembly was in session, the Marshland Protection Bills would have sailed through both houses into law. This would especially have been the case if the Mineral Leasing Board had defied public opinion and granted the lease.

Continued on page 20

ON THE COVER: Georgia's official State Bird, the brown thrasher. Thrashers are common year round residents of every Georgia county, from Brasstown Bald to the Okefenokee Swamp. Their beautiful song is commonly heard from February until July, when they become silent at the end of the nesting seasons. Efforts to replace the thrasher as the official state bird with the bobwhite quail kicked up a real fracas at the last session of the General Assembly, but the resolution is still buried in a House committee.

ON THE BACK COVER: A male cardinal. His bright beauty and clear whistle are welcome sights and sounds in Georgia every day of the year, especially during the winter. Color photos by the talented Dr. Dan Sudia, Atlanta.

PHOTO CREDITS: Ted Borg 1, 2, 3, 4, 6t.l., 7, 8, 9t.&b.l., 11t.&c., 12, 14, 15, 16; John Culler 17; Jim Morrison 11b., 13t; Marvin Tye 9b.r.; Ben York, Coastal Planning and Development Commission 6t.r.

os by Ted Borg

Tangle with a Tarpon!

By Jim Morrison

Here he comes! Albert Ryan of Darien has his hands full as a brawny Altamaha River tarpon breaks water. Tarpon begin moving into the river in July each year.

Bursting from the water with the power of a moon bound rocket, the silvery tarpon shook from side to side like a bulldog killing a rat.

The unexpected sight of the brawny fish, so close to the boat, stopped my breath. It was all I could do just to hang onto my light saltwater spinning rod, before he jumped again.

Hang on! Still not defeated, the silver king thrashes wildly as Charlie Bohannon tries to put the gaff under its gills. Men have actually been killed trying to boat giant tarpon.

Beauty and the beast? No doubt about which is which this time. Ryan's 30 pounder gets checked by the 1968 Tarpon Derby Queen, Sherry Holland of Brunswick. Scales in this year's contest are certified by the State Department of Agriculture.

Victory! Exhausted by his ordeal, Ryan hoists his trophy, the first tarpon taken in last year's first Tarpon Derby on the Georgia coast.

"Here he comes! Grab your camera!" I frantically shouted to Ted Borg, *Game and Fish* Magazine's staff photographer, who immediately dropped his rod as the next jolting leap exploded from the water, less than 40 feet away, and getting closer.

Still shaken by the head on sight of such tremendous power in mid-air, I caught a glimpse of something red and white draped over the tarpon's side.

"He's fouled up with your plug!" I screamed at Ted, who picked up his rod again as the monster submerged, showing me his plug 20 or 30 feet away splashing the surface as he reeled.

Before I could explain what I had seen, the tarpon leaped again, less than 20 feet away. Keeping a tight line on his jumps, my heart sank when the finny torpedo headed straight for the boat, boring for the bottom.

Holding on for dear life, I rammed my rod under water as quickly as possible, and worked the line around the outboard motor's lower unit, just in time for the first jump on the other side of the boat, 10 feet away.

The thought flashed through my mind: what might happen if that powerful form landed in the boat on his next jump, swinging the three large treble hooks of my plug in his jaw as he flounced between Ted and I!

Now my pulse was pounding with excitement, both from the power of the fish I had hooked, and from the unexpected threat of danger in his close leaps, something I had never experienced in fishing before. How could I land a monster fish like this?

The problem was solved on his sixth and last leap, when Mr. Tarpon and I said good bye with a feeling of mutual relief as my big plug came free and I reeled in the slack line.

How big was he? Judging from Ted's pictures, half as big as I thought at the time! Apparently he was from three to four feet long, and may have weighed from 30 to 40 pounds, compared to tarpon I have seen boated or in pictures. And he was the smallest Georgia tarpon I've tangled with, or seen on the end of a line.

The pictures show I had hooked him in the dorsel fin as he struck.

The first tarpon I ever saw in my life on the end of a fishing line was probably the biggest . . . another "one that got away."

On his first jump, his entire length of over six feet cleared the muddy waters of the Altamaha River before making a belly-buster landing, just as my cheap freshwater wire snap straightened out!

Alley Oop! The author's tarpon makes like an Apollo rocket. Tarpon can jump as high as eight to ten feet, plus 20 feet horizontally! It's enough to freeze even a frenzied angler's blood!

Still attached to my giant red and white Creek Chub plug and five feet of wire leader, he jumped again and again at the edge of the marsh, trying to free himself from the lure, while I watched helplessly. That was lesson number one about tarpon tackle.

So you didn't know there are tarpon on the Georgia coast? Then join the club of coastal fishermen who don't find it necessary to always go fishing in Florida! True, only a relative handful of fishermen in the past have realized that Georgia and Florida share the same ocean, and virtually the same fish, but the word is rapidly leaking out. Tarpon are found in tropical and subtropical waters on both sides of the Atlantic Ocean, both on North and South America, and Africa.

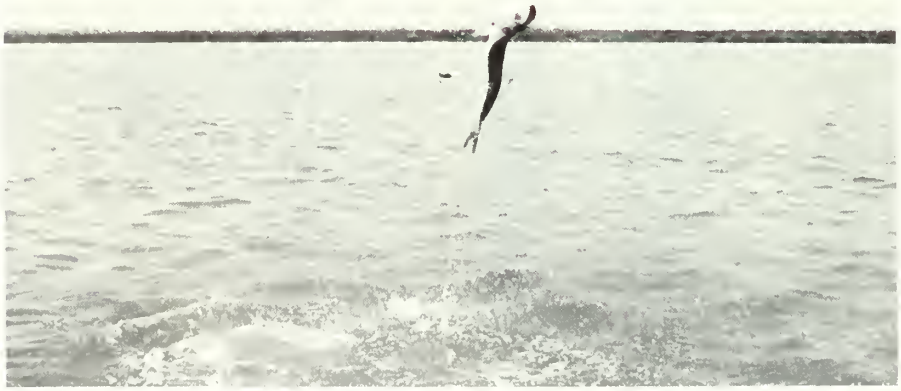
A few tarpon arrive in Georgia waters in June, but the bulk of arrivals from the south occur in July. The big bruisers remain in the shallow waters of the coastal area through August and early September, when they migrate southward.

Thousands of tarpon hang around the beaches, inlets, sounds, and tidal rivers and creeks surrounding the seven Georgia coastal barrier islands, as well as the adjacent mainland, even swimming short distances up the five main freshwater rivers.

While tarpon are caught in all these locations when they are actively fished for, which is seldom, the largest number are consistently caught in one spot in the Altamaha River near Darien, 30 minutes north of Brunswick.

Dubbed the "Tarpon Hole" by local devotees of the silver king, this particular spot is a relatively deep hole two miles long in the Altamaha's Middle River delta branch, between Broughton and Rabbit Islands in the middle of the State Game and Fish Commission's Altamaha Waterfowl Management Area, east of the U. S. 17 bridge and west of the Intercoastal Waterway. You can get a free map of the area by writing the Commission's Atlanta or Brunswick offices. It's in easy driving distance of the popular beach resorts of Jekyll Island State Park and St. Simons Island.

There are two ways to get into the "Tarpon Hole," either by launching your boat at the free public concrete ramp on the Darien River branch of the Altamaha just above the U. S. 17



There he goes! On the sixth and last jump, the author's red and white plug gave way from the tarpon's dorsal fin, which not infrequently gets hooked when the big fish slaps at the plug and misses.

Bridge and going through General's Cut to the Middle River, or by using the launching hoist at Frank Culpepper's Two-Way Fish Camp just below the U. S. 17 Bridge over the South Altamaha, then taking Wood's Cut to the Middle River.

How big a boat do you need? It's up to you—everything from 12 foot river boats with nine and a half horsepower motor up to 20 foot inboard-outboards are commonly used for tarpon fishing in the relatively protected river, which seldom exceeds a mile in width in most places before reaching the Intercoastal Waterway.

The most important thing is to have a good reliable motor that trolls well at its slowest speed, and two cans or tanks of gas! As my wife, father-in-law, and I found out to my considerable chagrin, they don't sell it on the marsh islands! In case you don't know, you can't pull up on the marshy bank and start walking to the nearest filling station—your chances of making it are pretty slim, and sometimes it's hours before another boat comes along to rescue you. Another interesting tidbit is the fact that the tide goes out twice a day, straight to the ocean via the sometimes treacherous Altamaha Sound, and it could take you with it if you're out of gas, having motor trouble, etc., and have no anchor or way of tying up on the fragile marsh grass stems in a stiff wind!

My injured pride at being rescued from the banks of Big Marsh Island was somewhat restored the next year, when Ted and I pulled a broken down 35 horsepower runabout and three fishermen all the way from the Intercoastal Waterway five or six miles back to Two-Way Fish Camp, crawling along with our 18 horse motor and its two cans of gas.

You can rent a boat and/or a motor at Two-Way Fish Camp, as well as launch your own boat on the hoist, buy gasoline, food, bait, lures, etc. You can also make arrangements there for a guide, especially on your first trip. While I had fished for tarpon in the river once or twice a year for three years previously without a guide and had still hooked several tarpon, I wasn't sure I was on the right track or not until I fished last season with veteran guide Jim McVeigh of Darien, who guides out of Two Way.

"I think the best tarpon lure is the red and white Creek Chub broken back plug," Jim says. "I've consistently taken the most fish and had the most strikes on the one and a half ounce size with the medium running lip, although some fishermen prefer the three-fourths ounce size or the larger three ounce size."

A few local fishermen prefer the same plug (which Creek Chub calls the Pikie Minnow) in a perch or mullet finish or even blue, but the red and white plug is most commonly used. You can get them at Two-Way and in a few tackle shops around Brunswick, if you know where to look, but I've never found them in stock anywhere else in Georgia, and most Atlanta wholesalers don't even handle this size plug, which retails for about $2.50. Because of the shallow depth of the Altamaha where the tarpon are, you don't need the long lipped deep diving models, which spends most of its time rooting up the bottom.

Of course, other lures can be successfully used to take tarpon. They include a wide variety of plugs, spoons, and feather jigs, I've been told. For what it's worth, I've tried them all in the Altamaha, but have never had a strike or seen a tarpon strike any of them, except a large Rapala.

According to local fishermen, one of the best ways to fish for tarpon is still fishing or drifting with live bait on a 6/0 hook, usually a mullet or some other species, although dead mullet, crab, and even shrimp are used in some places to fish for tarpon.

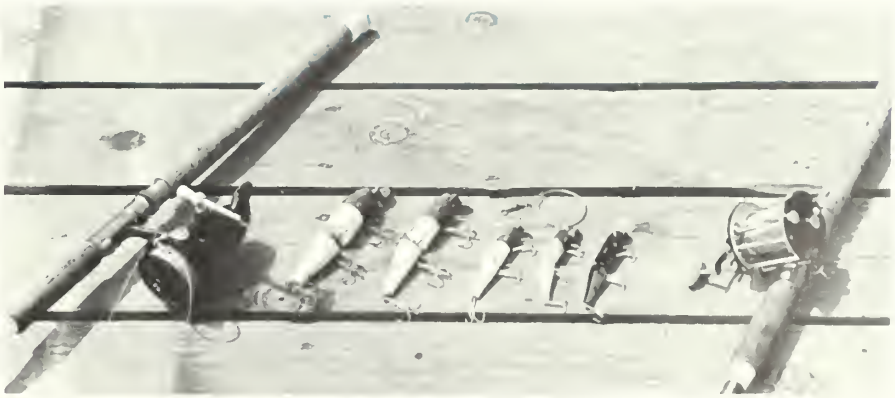
If you know how and where, you can catch you own bait in a seine or cast net. While fly fishing for tarpon is becoming popular elsewhere, I've never heard of it being successfully used on the Georgia coast, apparently because of the different water conditions and the feeding habits of the fish. Maybe it just hasn't been tried much.

As I learned, the way you attach your lure to the line is important. You need at least 12 to 15 inches of 100 pound test of wire leader wrapped directly to the plug with enough of a loop to allow movement, without using a snap. This keeps the rasping jaws and gill plate of the tarpon from sawing your line away. It's also a good idea to have about five feet of 50 or 60 pound monofilament above that, fastened to a strong saltwater swivel without a snap, to guard against the tarpon's flailing body on the jumps. One of the best ways to fasten wire leaders to the plug and to a swivel is to use the small metal sleeves made for this purpose, which are crimped with special crimping pliers or electrician's pliers. Don't be sorry later—test them out in advance!

What about rods and reels? Well—you can leave that ultralight spinning rod home, unless you like to lose plugs! It's difficult to land these large fish on regular freshwater spinning or casting tackle, without a lot of luck and hours of effort, say around 10 or 12 hours! About the lightest tackle you can expect to get away with is using about a nine foot light action saltwater spinning rod with 20 pound test mono on a saltwater reel, like the Mitchell 302 that I use, which is not too heavy to cast with. But for trolling, if you really mean business, you can't get a star drag reel and a short, strong trolling rod that is too heavy for tarpon, although you won't be able to use wire line in the shallow water. 50 pound test braided line or better is the best bet.

What time of day do you fish? Don't worry about that early in the morning and late in the afternoon business—it doesn't apply to tarpoon fishing. In the Altamaha, tarpon fishing hours are dictated by the tide. Apparently, the big fish move up the Altamaha out of Buttermilk Sound and into Tarpon Hole with the incoming tide, feeding on schools of small minnows like menhaden, anchovies, and mullet, and then move back out of the river with the tide. As a result, tarpon are seldom seen in the river except at about two hours before high tide and until about two hours after. The best fishing time is believed to be the first hour after high tide, but it's a matter of opinion.

It takes heavier than usual tackle to land tarpon, preferably star drag saltwater casting and trolling equipment (right), although a light saltwater spinning reel like the Mitchell 302 with 20 pound test line can be used. Even so, tarpon can't be "horsed." The most popular lure in the Altamaha's "Tarpon Hole" is the Creek Chub Jointed Pikie, which comes in three ounce, one and a half ounce (the most popular), and three-fourths ounce size, which last year's winning contest fish was caught on. Red and white is the locally favored color, although some anglers prefer the shad or mullet finishes. A wire leader is a necessity.



It is sure in the Altamaha that you're wasting your time to fish at low tide, because the fish simply aren't there. Fishing tides vary with the locations—low tide may be best in the sounds. Another thing—in consulting the tide table for the time of high tide, you have to remember that the published charts like *Game and Fish* Magazine prints each month are for the outer bar beyond the offshore islands. It takes the tide approximately two hours to reach up the Altamaha to the Tarpon Hole and U. S 17, so make your plans accordingly. Most fishermen fish only in the daylight high tide on the Altamaha, although night fishing is considered the best in many Atlantic coastal areas.

How do you know when tarpon are around? It's easy—you can see them. Tarpon have an air bladder connected to their gullet which they use for breathing atmospheric air, in addition to their gills. As a result, they frequently rise to the surface and "roll" to take in air, regardless of whether or not they are feeding, a frustrating finagle factor for fishermen. But when tarpon are actively feeding, there's no mistaking what is going on, especially in a large school of forage fish. But just to be ornery, tarpon will steadfastly ignore your lure while they are tearing the water apart, only to latch on when you think the last fish in miles has disappeared.

I'll never forget my first view of a school of tarpon headed into the Altamaha's middle river. Walt Stephens and I could see them rising through the calm water on the incoming tide, miles away. The quick flash of sunlight on their slivery sides is unmistakable. In a few minutes, we were in the middle of them, awe-struck by the sight of their powerful greenish hued backs rising from the water in a quick roll, the long whip-like filament on their dorsal fin clearly exposed. Most of the fish in the school were from sixty to a hundred pounds in size, we estimated. The one that took my plug with him staggered our imagination enough to troll for two more days in hopes of hanging another.

Trolling is the most common method of fishing for tarpon on the Georgia coast, although they can be caught plug casting. Failing to connect one afternoon trolling, we shut off the outboard motor and drifted into a small school of feeding tarpon, listening to them rise on all sides of the boat.

Since he couldn't cast with his heavy saltwater trolling outfit, Ted Borg picked up his small freshwater spinning rod with a Mitchell 300 reel and six pound test line, tied on a Creek Chub, and made an experimental cast. You guessed it—the water exploded! Ted's tarpon was about a 60 or 70 pounder, and every ounce of it was airborne at least five or

Size is no limit on boats used for tarpon trolling in the Altamaha, all the way from inboard-outboards like Darien Mayor Dr. William Tailer's on down to small flatbottom fishing boats with 10 horsepower outboard motors.

Here they come! Darien guide Jim McVeigh of Two-Way Fish Camp spots a school of rolling tarpon coming in with the tide, rising to breath atmospheric air into their lung-like air bladder.

six times. I made a picture of it at the top of every jump, only to find out later that in my excitement, I forgot to focus the camera!

The end of Ted's story is a sad one, unfortunately—his tackle was no match for the big bruiser. After his thrilling jumps, he began to doggishly sulk underwater on the bottom of the hole, and the light rod wasn't strong enough to raise his massive head for another series of tiring jumps. Eventually, the light six pound test line was simply worn away, rather than broken, after a futile 45 minutes. Later, we jokingly told the dispirited Ted that the tarpon had caught him, instead of vice-versa!

Ted's fish was the only one we ever saw strike a cast lure, and on all the strikes that either of us have had since were while trolling, in spite of hours of arm-wearing effort.

When it comes to tarpon, Ted is one of the luckiest, and unluckiest, fishermen that I know. In two days of trolling with Jim McVeigh and I, Ted hooked and lost six tarpon, once when his line caught in the edge of the spool and broke, another time when he lost his plug. The rest of the time, the metal-mouthed tarpon managed to get off the hook, which is easy to understand when you finally get to look down a dead one's throat.

Many times, one jump is all you'll get out of a tarpon. As soon as he feels the hooks, alley-oop!

In case you've been waiting to read about how I finally landed the big one, you can lay the magazine down right now, because I'm still trying! By now, you've probably got the message that tarpon aren't any pushover. You're right!

Although I've seen hundreds of tarpon in the water and dozens on the line. I've had three strikes in four years of tarpon fishing, and was left remembering eight fantastic jumps to hang on my den wall. During that time, I've actually seen only one tarpon caught—the one pictured with this article landed by Albert Ryan of Darien.

Why? The main reason is that tarpon are simply hard to catch, even if you know how. Tarpon frequently simply won't bite. When they do, hooking them and staying hooked during their wild jumps is easier said than done. While you can hesitate briefly before setting the hook, most anglers advise putting plenty of muscle into it. If you strike too soon, you may pull the plug out of his open mouth as he surges up before chomping down on it.

Just to confuse matters, some anglers recommend not setting the hook at all. Bob West of St. Simons Island, the winner of last year's Tarpon Derby, says that it's a waste of effort to try setting the hook in the bony mouth of a tarpon. Bob instead tries to let the tarpon snag the inside of a bony ridge in his mouth by sliding the plug along, hoping it will catch underneath. Then, he keeps a tight line at all times, since the hook may pop loose at any time if the line goes slack.

Another reason few tarpon are caught is that almost no one has been fishing for them on the Georgia coast, until last year. Tarpon are edible, but that's about all that can be said for them. Since most of the local fishermen are primarily out for meat, rather than sport they aren't interested in the tarpon, especially when they find out how difficult he is to catch, loudmouthed braggarts to the contrary!

I like to compare tarpon fishing to still hunting for deer, which are similar in many ways: the tarpon stalker, like the deer hunter, must have plenty of patience. He can go to the general area where tarpon are, but then the next move is up to the fish. But when lightening finally strikes, the excitement is thunderous! There is no doubt in my mind that the tarpon is the king of Georgia's big game fish, even if he can't be eaten!

Since he's generally considered unpalatable, most sport fishermen release their catch alive, unless they plan to have him mounted as a trophy or want to enter him in a fishing contest. This can be done with the fish in the water by holding his head with a gaff under the gill plate and using pliers to carefully remove the hooks.

Oh yes, those stories you've heard about tarpon killing men who pulled them into their boat too soon? They're true, so don't get in a hurry! His powerful tail could break an arm or leg, or a few boat seats. You could lose an overturned tackle box, but that would be better than a severed juglar vein at the hands of your own plug flailing from his mouth. While some fishermen shoot their catch with a pistol, this can be a dangerous practice, and is usually not allowed in a fishing contest. If you wear him out long enough, you'll finally be able to gaff him under the gill plate, then beat his brains out on the side with a billy club or a piece of lead pipe. But don't ever pull him into the boat until you're sure he's dead, or pretty well subdued.

And what about the fishing contest? It's the Tarpon Derby, which was started last year by the Coastal Planning and Development Commission. It's being held again this year from June 22 through Labor Day, co-sponsored by the newly formed Coastal Sport Fishing Federation, in all of the six coastal counties except Chatham. The entry fee hadn't been set by the deadline for this article, but will probably be in the neighborhood of 50 cents to a dollar for each participant, with the cash going to the top winners in three categories: all tackle, light tackle (20 pound test line or smaller) and most unusual catch. The entry fee can be paid at any one of over 20 official weighing stations at most coastal fish camps, etc. The State Department of Agriculture has inspected their scales for accuracy, so "guesstimating" won't do! All fish entered in the contest must be caught by one person on a rod and line, with shooting not allowed.

The winner of last year's contest was Bob West of St. Simons Island, who landed a 137½ pound whopper in a secret location somewhere on the Intercoastal Waterway off St. Simons Island. West took 40 minutes to land the whopper on a heavy trolling rod with 36 pound test line, using a three-fourths ounce red and white Creek Chub Pikie, the jointed or broken-back model. His fish was six feet, five inches long. (The world record tarpon caught on a rod and reel weighed 283 pounds, although a 350 pounder that measured eight feet, two inches long was caught in a net.

The light weight division was won by Floyd Atwood of Darien, who accidentally hooked a 28 pounder in the side while trolling for Spanish mackerel with 20 pound test line on a Mitchell 300 reel.

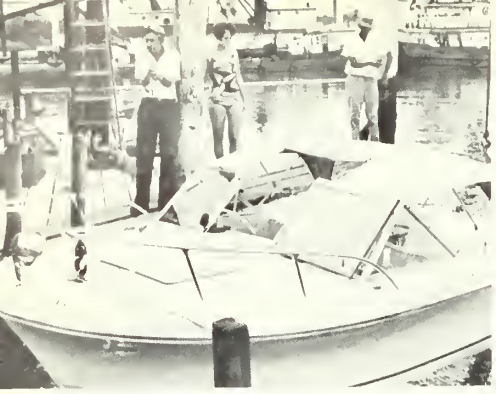
In all, there were 49 tarpon entered in last year's contest, with most entries averaging 12 to 14 pounds, caught primarily in the Altamaha River, although tarpon are caught in many other locations, such as Buttermilk Sound or Sutherland Bluff near Shellman Bluff and its fish camps, along with Blackbeard Creek, and Cabtetta Inlet, all in McIntosh County.

Other spots include the Little and Big Satilla rivers in Glynn County, and several creeks around Cumberland Island. I am sure there are many other places that I don't know about in the sprawling vastness of the Georgia coast.

One of the largest schools of big tarpon that I ever saw was in St. Andrews Sound, between the southern tip of Jekyll Island State Park and the northern end of Cumberland Island.

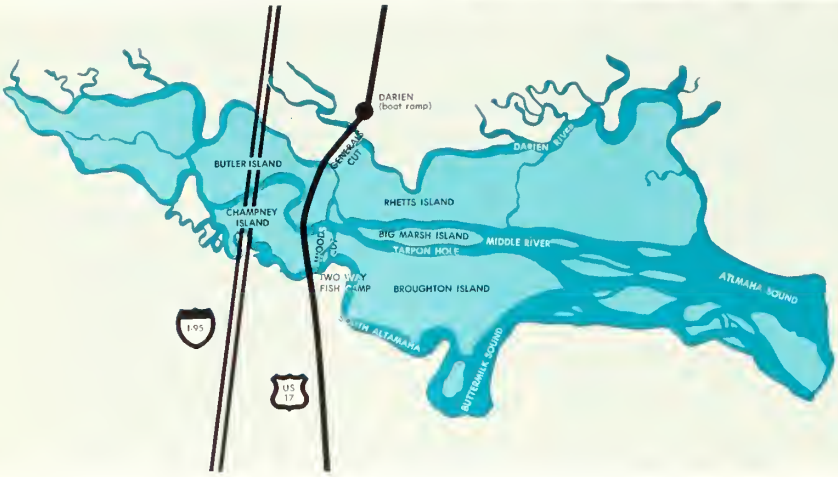
Walt Stephens and I ran into them on our way out to fish for Spanish mackerel, but we never spotted mackerel that morning. Looking for the sea birds that mark the schools, we zeroed in on a large flock of wheeling and diving birds, only to find the silver kings tearing up a tremendous school of menhaden, or porgies, as they are called by natives.

And what a sight that was! In the clear green water of the sound, we had no trouble seeing six and seven foot tarpon cruising under the water before tearing through the school of smaller fish, sending them flying through the air



The only fish camp and marina on the Altamaha above the "Tarpon Hole" is Frank Culpepper's Two-Way Fish Camp on the Glynn County bank, named for the interesting fact that fishermen can catch either fresh or saltwater fish from the camp, by either going up or down the Altamaha's brakish water tidal zone. There is also a public boat launching ramp at Darien.

Last year's tarpon Derby was won by St. Simons Island angler Bob West, who landed this 137½ pound giant "somewhere off the Intracoastal Waterway" near St. Simons Island, believed to be Buttermilk Sound at the end of the Altamaha.



"Tarpon Hole" Location Map

TARPON DERBY WEIGHING STATIONS

(All phone numbers are in 912 area code)

(Register before going fishing)

OGEECHEE FISHING CAMP
Mr. E. L. Salette, Mgr.
P. O. Box 37
Richmond Hill, Ga.
756-3952

KILKENNY FISHING CAMP
Robert E. Bacot, Mgr.
Rt. #1, Box 216
Richmond Hill, Ga.
756-3940

HAROLD'S FISHING CAMP
Harold Wiberg, Mgr.
Rt. #2
Townsend, Ga. 31331
832-5116 (Eulonia)

KIP'S FISHING CAMP
Kip Smith, Mgr.
Rt. #2
Townsend, Ga. 31331
832-5162 (Eulonia)

NICK'S FISHING CAMP
Nick Detrino, Mgr.
Shellmans Bluff
Townsend, Ga. 31331
832-5218 (Eulonia)

FISHERMAN'S LODGE
J. I. Burke, Mgr.
Rt. # 2
Townsend, Ga. 31331
832-4671 (Eulonia)

BRANCH'S FISHING CAMP
J. Branch, Mgr.
RFD #1, Box 213
Midway, Ga. 31320
884-531[illegible] (Hinesville)

MORGAN'S FISHING CAMP
J. W. Morgan, Mgr.
Rt. #1
McIntosh, Ga. 31317
884-2220 (Hinesville)

BARTRUM'S MARINA
Roy Bartrum, Mgr.
Rt. #2
Townsend, Ga. 31331
832-4603 (Eulonia)

CROOKED RIVER STATE PARK
Jerry Minchew, Superintendent
Rt. #1
Kingsland, Ga. 31548
882-5256

BLUE 'N HALLS FISHING CAMP
Mrs. D. L. Stewart, Mgr.
P. O. Box 181
Darien, Ga. 31305
437-4677

TROUPE CREEK MARINA
Bob Gill, Mgr.
Rt. #2, Box 3
Brunswick, Ga. 31520
264-3862

OLSEN'S YACHT YARD
"Bubba" Olsen, Mgr.
P. O. Box 1137
St. Simons Island, Ga. 31522
638-8633

JEKYLL ISLAND MARINA
#1 Pier Road
Jekyll Island, Ga. 31520
635-2241

JONES FISHING CAMP
Mrs. Agnes Crews, Mgr.
Route 5, Box 615
Brunswick, Ga.
265-1757

TERRY CREEK FISH CAMP
Mr. Roberts, Mgr.
#8 Terry Creek Road
Brunswick, Ga. 31520
265-7646

GEORGE'S BAIT STOP
George Bennette, Mgr.
117 Darien Road
Brunswick, Ga. 31520
265-3091

TWO-WAY FISHING CAMP
Frank D. Cullpepper, Mgr.
Rt. #2, Box 84
Brunswick, Ga. 31520
265-8268

BRUNSWICK MARINA
Clare Shoemaker, Mgr.
P. O. Box 548
Brunswick, Ga. 31520
265-9881

ST. SIMONS MARINA
Ed Tabot, Mgr.
St. Simons Island, Ga. 31522
638-9146

DICKEY AND SONS PACKING CO.
Mr. Dickey
St. Marys, Ga. 31558

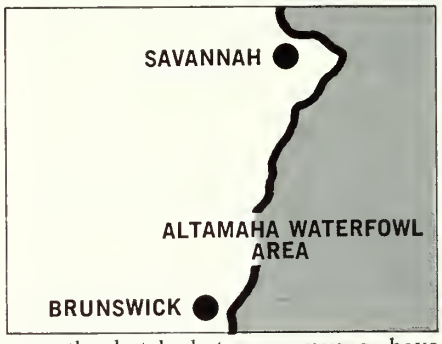
with a cloud of spray in all directions. Sometimes, the tarpon would come halfway out of the water in their feeding frenzy, constantly rolling around the boat.

Driven to distraction, we followed the school for over two hours, almost to the Jekyll Bridge, trolling back and forth through it with every lure we had, including one of the menhaden that we snagged on a plug, but with only one strike, on the old faithful red and white Creek Chub.

When the strike came, I had given up hope, and was about to fall asleep with boredom from the constant drone of the trolling motor. When I looked back 75 yards behind the boat and saw the giant hurling straight out of the water like a telephone pole, I could scarcely believe my eyes. Feeling the hooks, he went for the air, and immediately threw my plug.

How high do tarpoon jump? The experts say up to 10 feet, and over 20 feet horizontally. I believe them.

For years, I had heard that tarpon came into the Altamaha to spawn, but apparently that isn't true. All the experts say tarpon spawn in saltwater between the shore and the Gulf Stream, which is 30 to 90 miles off the Georgia coast. This is the only area in which



recently hatched tarpon young have been found. Originally a small eel-like swimmer, the tarpon larvae metamorphose and actually shrink in size before turning into juvenile tarpon, rapidly heading for the salt marshes around Sapelo and other Georgia coastal islands, where they switch from a diet of crab larvae and aquatic insects to small shrimp and fish. Young fish are found in the marshes from July to November, indicating the dates of spawning, but they disappear in the fall shortly after the adults leave.

True, Georgia tarpon may not be good to eat, or the easiest fish in the world to catch—but if they were, could they be any less exciting to catch? I don't think so, but don't take my word for it—try it yourself!

(Editor's note: After this article was sent to the printers, the author caught his first tarpon last month in the Altamaha's "Tarpon Hole," a five foot, 50 pounder.)

HOW TO LAND A LUNKER

By Marvin Tye

■ It was a dark, overcast July afternoon, and I was thinking more about the possibility of getting soaked by the threatening rain than of catching a large bass. I had come to fish, so I made one more half-hearted cast and allowed my purple Kurl Worm to sink. I had just begun to work it over the bottom when I felt a jolting strike and the run of a heavy bass.

The fish had caught me with my guard down. There was no time to release the bail on my spinning rod and let the bass take the lure with no resistance. I pulled the rod tip up sharply to set the hook and was relieved to feel a solid resistance. For a few seconds I could feel the fish tearing off line against the tight drag. Then the run stopped and I could not budge it or make it run again.

"He's tangled in the weeds," I yelled to my companions, Jim Morrison and J. Hall. "Let's get over there before he breaks off."

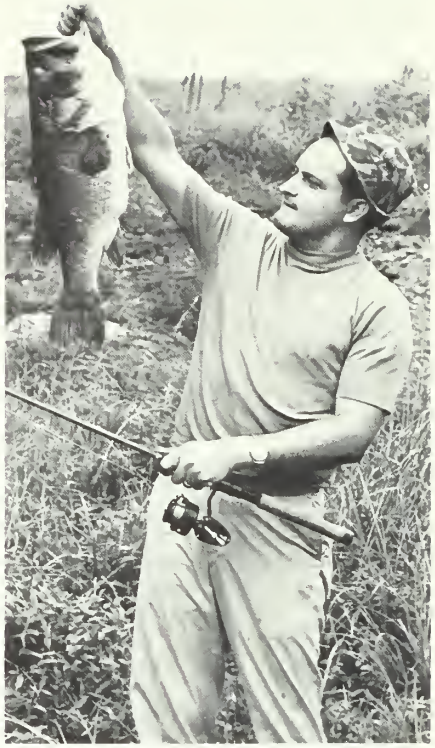
Jim and J. paddled the small skiff over to the weed bed in record time. I held my rod tip high and reeled in as fast as I could in order to keep a tight line. Just as we reached the weeds, the bass shot out of the cover on another

After a bass has been thoroughly exhausted on light tackle, the angler can grab it by the lower jaw and bring it in, but use of a landing net is recommended on larger fish.

run. I got my first glimpse of the monster then and he seemed to be as long as my arm. I put all of the strain on my eight pound test line that I thought it would stand and pulled the bass toward the net. It tried once more to run under the boat, but the light drag was beginning to take its toll. The bass allowed itself to be led to the net and Jim scooped it up. A couple of hours later on a grocery store scale in Valdosta it weighed nine pounds, and measured 26 inches long.

Some day every bass fisherman hopes to catch a bass weighing nine pounds or more. Some succeed. Many do not. I had made the grade when I had really least expected it. Jim, J. and I were in Valdosta on business and had gone down to the lake for a little fishing at the end of the day, as much to kill the time as for any other reason.

Without really planning it that way, I had followed two of the rules for catching big bass. These are: go where the big bass are to be found and fish at the depth where the bass are feeding. The Valdosta area has produced a number of large bass in recent years. At the time of my fishing trip the bass were in fairly deep water The Kurl Worm was obviously just the right bait to use at that time. A heavier line would have been better. Most bass fishermen use 15-lb. test line when fishing around snag-infested water.



Lunker Largemouth bass are caught in Georgia during each month of the year. This one was taken by the author from a privately-owned lake near Valdosta in July.

Georgia bass fishermen are lucky. The world's record largemouth was taken here in 1932 by George Perry. That lunker weighed 22 pounds and 4 ounces. Few bass anywhere near that size have been landed in the 37 years since that exciting day in June. Nevertheless, quite a few bass of six pounds and over and a few monsters of up to 17 pounds have been taken in the Peach State.

The world's record largemouth was taken in Montgomery Lake near Lumber City, Ga. The second largest weighed 17 lbs. 14 ozs. and was taken by Nickie Rich of Marietta in Chastain's Lake on April 27, 1965. Emory Dunahoo of Gainesville took the third largest, a 17 lb. 9 oz. specimen, from Lake Lanier on Dec. 19 of the same year. There is a possibility that larger bass have been caught in the state. Many fishermen supplement their diet with fresh caught bass. Most of these find their way to the frying pan without ever being weighed.

As the records would indicate, just about any time of the year is a good time to go bass fishing. There is no closed season on bass in the state. While many of our neighboring states to the north are covered with snow and their rivers and lakes frozen over, residents of the Peach State are landing large bass and other game fish without having to break the ice first.

The majority of Georgia's anglers don't fish during the coldest months of the year, December, January, and February. There are too many months of warm weather to fish during the winter. Anglers like Emory Dunahoo who caught the third place largemouth at Lake Lanier in December sometimes score quite impressively. My friend Terry Chupp of Atlanta likes to fish for bass throughout the year. He invited me to accompany him to Lake Lanier one Saturday in February of this year. We had been having shirtsleeve weather for several days up until Friday, but as so often happens, our winter's quota of snow and ice fell that weekend. We decided to wait until the next Saturday.

The following week was bright and warm. Saturday was again one of those wet and awful days. We fished until we could take the cold no longer, then headed for home. The weather began to clear as we reached Freeman's lake near Lilburn. Not one to give up on his only chance for fishing during the week, Terry suggested that we stop and fish for another hour. This time we both fished artificial worms slowly across the bottom as our boat drifted across the lake. Terry got a strike on our first crossing and let the fish run with the bait in the approved manner. When the bass started his second run, Terry closed the bail and set the hook. After a brief struggle, he hauled a six-pound largemouth to the net. This was a fitting reward for the time we spent sitting out in the rain. It was not as miserable as it may sound. Both of us wore waterproof boots and plastic rainsuits that covered our bodies from head to toe. Underneath were several layers of wool and cotton clothing. Although the temperature was only slightly above freezing, only our hands and faces were sensitive to the cold.

Probably more large bass are taken on plastic worms than on any other artificial lure. This lure is both effective and widely used. The approved method of fishing the worm is to let it sink to the bottom, then to retrieve it slowly, using twitches of the rod tip to impart the desired action. A slight variation of this technique is employed by drifting over a likely area with the bail of the spinning reel open. The angler holds the line with one finger while working the worm over the bottom. As soon as he feels a strike the angler releases the line and allows the bass to run with the lure. When he thinks the fish has had sufficient time to get the bait into his mouth, the angler takes up the slack and sets the hook. Each angler has his own opinion as to how long the bass should be allowed to take the lure. Some put no pressure at all on the fish during his initial run. Others squeeze the line lightly between their fingers. They believe that this makes the worm feel like a live

Bass can swallow a big mouthful. This fish fell for a plastic purple Kurl Worm.

Carlton Slocum used large shiners to hook these two bass, a 10-pounder and a smaller fish that weighed seven pounds. His largest to date is a 14½ pounder. Many Georgia anglers also use salamanders or spring lizards to hook big bass.

animal that is struggling to get away. This is intended to make the bass gobble up the worm in short order.

Some anglers use worms rigged with two or more hooks. They try to set the hook immediately when a bass strikes. A minority of those who use the single-hook rig also try to set the hook immediately. They lose a lot of bass by not hooking them, but they also manage to hook and land their share.

Fishermen using live bait land a large number of lunkers each year. The two most popular live baits in Georgia are the salamander or spring lizard and live minnows. Spring lizards are usually fished on the bottom, held down by a sliding sinker or split shot just heavy enough to sink the bait. The lizard is usually hooked through the lips with a weedless hook. Care must be taken to allow the bass to run with the lizard until it gets the bait within its mouth or swallows it. The same technique is used when fishing with minnows.

During a trip to a privately-owned lake in South Georgia two months ago I tried a wide variety of artificials with no success. One of the local anglers, Carlton Slocum, was using shiner minnows nearly as long as my hand. During that day he had landed a 10-lb. bass, a seven pounder, and a small fry that weighed in the neighborhood of three or four pounds. A few weeks before he had caught four bass that weighed 9½, 10½, 11½, and 14½ pounds, all in one day of fishing. Understandably, he was not overly impressed with the results of his fishing on the day that I was there.

A bass of anywhere near 10 pounds is more than enough to perk up my interest, so I laid aside my lures and started fishing with minnows. I fished the remainder of the afternoon and all of the following morning with live minnows. My largest bass was only a two and a half pound specimen that was smaller than the small fry Slocum had landed on the first afternoon.

Another angler commented on our lack of success with the lunkers. "There are big bass in this country," he said. "If you fish it long enough, you are bound to hook one. It may take 1,000 casts, but if you stick with it you should be successful."

One of the things that makes bass fishing so interesting is that you never really know what they will hit. A lure that really hauls them in one day may not produce a strike on the next. I believe I'll try top-water plugs on my next bass fishing trip. Who knows, I may land another lunker. According to my friend's estimate of one lunker to every 1,000 casts, I have about 800 or so casts to go before I score again. I don't really count my casts, but I'll bet I enjoy every one of them, and will probably catch enough of the [illegible] between lunkers to make it interesting.

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Follow the Birds

By Jim Morrison

In the early morning darkness, the crisp excitement of the salt air created a warm glow of anticipation in the two fishermen as they loaded their gear into the boat.

Not far away, the lights of Brunswick twinkled. On a nearby dock, another party of fishermen were launching their boat, preparing for a day of Spanish mackerel trolling.

Heading down the small tidal creek flanked by wide expanses of marsh, the two men drank in the beauty of the newborn day. A comfortable wind blew in from the sea, insuring that insect pests stayed in their hiding places. It was too early to even worry about the torrid heat of the mid summer day to come.

Soon, they could see the blinking navigation lights of the ship channel leading from Brunswick toward St. Simons Sound, and the waiting vastness of the Atlantic Ocean. Within minutes they had crossed the calm water of the Intracoastal Waterway east of Jekyll Island, and began bouncing across the small wind-propelled waves of the sound itself.

Far to the east, the rapid reddening of the sky at the earth's rim heralded the approach of the sun, a giant firey ball that leaped from the sea with amazing speed, vanquishing the pleasant darkness.

Now other boats ahead were visible, also riding the waves down the wide avenue marked by the ship channel to more than seven miles offshore. One by one, the red and black buoys passed by, each succeeded by another more distant.

Suddenly, the boats ahead picked up speed, and swung from the channel toward some magical attraction.

"The birds!", shouted one fisherman.

The black specks on the sky that were drawing the speeding boats soon grew wings, wings that were carrying their owners on swift descents into the sea in pursuit of pieces of food.

"Mackerel!", came the next excited cry, as a foot long cigar with fins broke from the green water and disappeared, followed by quick glimpses of dozens of tails, fins, or complete forms, thrashing the surface of the water as the school fed ravenously on the small menhaden, leaping frantically to escape.

The silver flash of two spoons cast simultaneously arched from the boat, followed almost immediately by the bending of two light spinning rods.

"He's on!"

"I've got one too!"

In two or three minutes, two long yellow spotted Spanish Mackerel were beating a rapid tattoo on the bottom of the boat, adding to the excitement of the next cast, which produced two more fish, before the school suddenly disappeared as magically as it had first arrived.

"There they are over there," somebody yelled, and the small armada of boats sped to the new scene of action, two hundred yards away.

Drawing up short of the center of the school, the silver spoons again flashed through the air, and began twisting under the water at a fast troll.

Just behind the boat, several dark torpedoes broke the water, and one line snapped taunt. "We're in 'em!"

Soon, the number of mackerel pounding the bottom of the boat began to double, triple, and quadruple as the eager anglers hoisted their quarry unceremoniously over the side.

Reaching for his line to boat another mackerel, the man stared in astonishment as a second mackerel flashed by his hand, inches away, and the line went limp.

"Cut your leader off," laughed his companion. "I told you not to use those shiny swivels."

With several dozen mackerel in the boat now, the action began to slow as the heat of the day increased. Gradually, the thrashing schools of fish identified by the wheeling and diving "mackerel birds" became more and more scattered, submerging more quickly on the arrival of the ever-pursuing boats.

Finally, a scan of the horizon through binoculars revealed a flock of birds, almost half a mile away. Most of the other boats had gone home now, or were scattered out over the sea. Casually accelerating to avoid attracting attention, the two men eased their craft toward the end of the fictious rainbow, hoping to again find treasure.

They weren't disappointed. Both rods bent in unison, but this time, the struggle was anything but short.

"Wahoo! Wahoo!" hollered the tall fisherman. "He's a big one. Get the gaff!"

But his companion was too busy trying to land his own catch on a whippy spinning rod to pay any attention, especially at the first glimpse of the largest Spanish mackerel he had ever seen!

"You better use the ga . . ." the warning words trailed off as the thin mono-

filament line snapped above the leader and swivel, and the beautiful fish splashed back into the sea.

"That was the biggest one today," cursed his sickened companion. "Don't lose yours that way."

With one vicious stab of the gaff and a quick lift, it was all over for the big mackerel's twin, almost three feet long. He was enough of a trophy to forget about the fact that the fish had quit biting, and that it was time to run back to shore for lunch, and to start filleting.

Sound like fun? It is, especially if you like to stock up your freezer with some of the most delicious meat that swims in the sea, and enjoy a fight doing it. While most Spanish mackerel run small in size, averaging a pound and a half, they can't be beat for flavor, especially when baked. Cleaning them's no problem at all, since the meaty fish can simply be filleted on each side, leaving the practically smooth skin with its tiny edible scales attached to the back of the fillet. By eliminating problems like gutting and cutting the head off, any fishermen can quickly clean an ice chest full of Spanish mackerel in record time, using a thin, but long bladed, fish knife.

Five pound Spanish mackerel are considered big on the Georgia coast, but 10 and even 20 pounders have been reported, though they are rare. If you catch one that big, you've got a real problem: eat him, or mount him? The bigger mackerel can be cut into steaks big enough to feed your family several meals. Incidentally, this is the same fish frequently sold in stores or seen on the menus of fancy restaurants.

While Spanish mackerel don't get as big as their cousins, the king mackerel and the cero, they have the important advantages for the Georgia fisherman of being much more numerous. More important, they swim closer to the shore than king mackerel, which tend to seldom venture very far from the Gulf Stream, which is 45 to 90 miles out from the Georgia coast, reaching farther out the more northward it flows. For this reason, it is closer to the lower end of the Georgia coast, which helps to account for the better fishing success there, since fishermen spend more time fishing and less time running their boats to reach the fish.

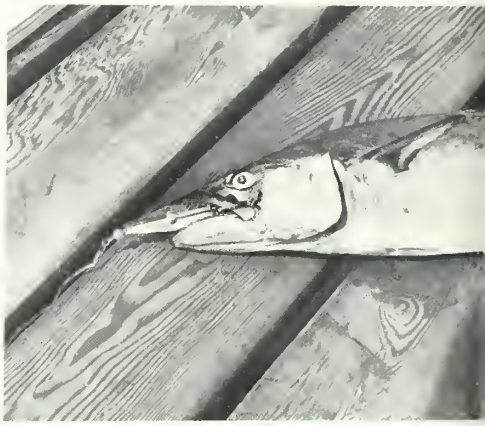
Obligingly, Spanish mackerel will frequently congregate five to seven miles off St. Simons, Jekyll, Cumberland, Sapelo, St. Catherines, Ossabaw and Wassaw islands, in easy range of fairly small boats, sometimes even swimming right through the major sounds into the Intracoastal Waterway. Sometimes they can be caught off the pier on the southern end of St. Simons, but the best fishing is usually outside the sounds from a boat.

The excited wheeling and diving of small "mackerel birds" marks the school's location, even when the fish are submerged. The birds never dive under the water picking up leftover scraps because the ravenous Spanish mackerel would eat them, too.

The vastness of the ocean miles off the Georgia coast lends a Hemingwayish "Old Man and the Sea" quality to fishing for Spanish mackerel from a small boat under the early morning sun's rays.

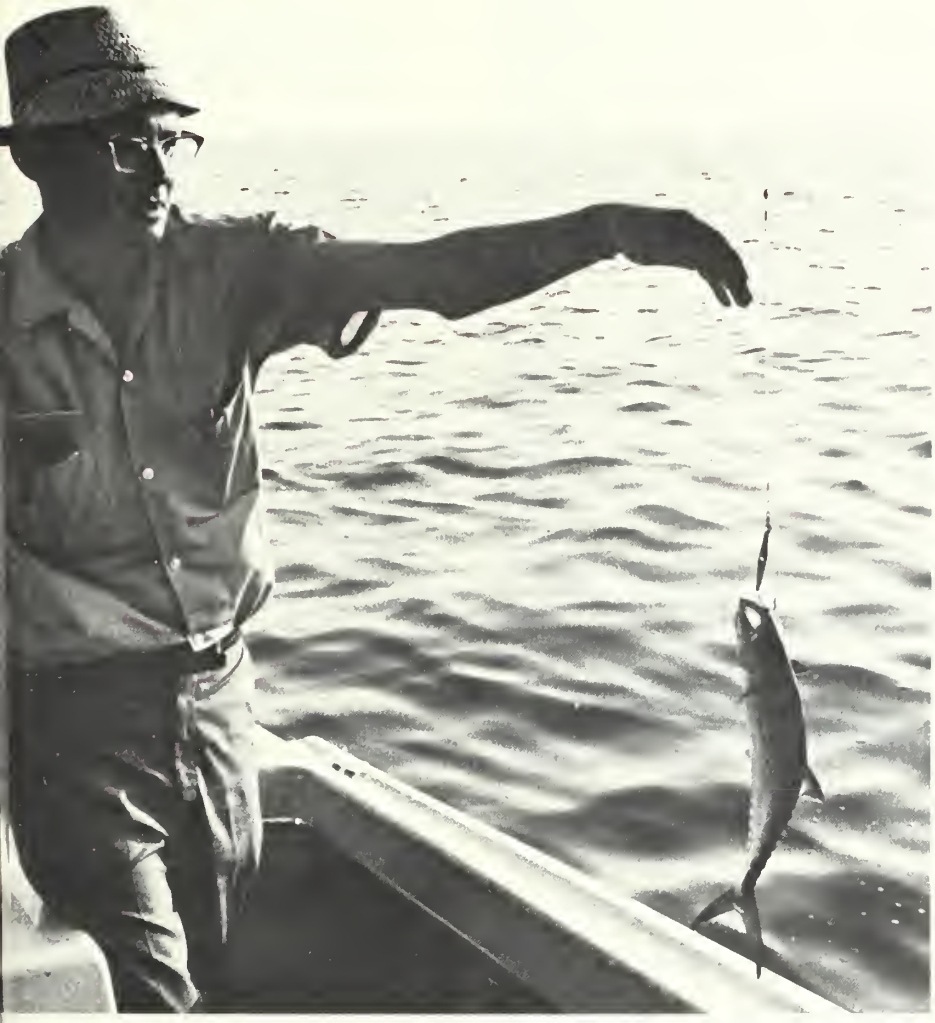
Powerful fighter for their size, Spanish mackerel can show their sporting qualities off better on light freshwater spinning tackle, although many "meat fishermen" prefer heavier saltwater gear.

Pulling supper out of the sea all by yourself satisfies man's primitive instincts for survival and independence. Since there are no limits in saltwater, fishermen try to catch as many of the tasty mackerel as they can.



The most popular lure for Spanish mackerel on the Georgia coast is Clark's Squid Spoon in the number one size, although this larger Spanish prefered a number two. If you look carefully, you can see the mackerel's needle-like teeth, which require a wire or heavy monofilament leader and careful handling by the successful fisherman.

The average size for Spanish mackerel is about a pound and a half. Although this five pounder caught by the author isn't run-of-the-mill, Spanish mackerel have been landed weighing from 10 to 20 pounds.



The action is fast and furious when mackerel are really biting, but sometimes the streamlined morsels go on a hunger strike for hours at a time. Schools commonly seen one day may vanish completely the next, for some unexplained reason.

An amazing size range of boats are commonly used for mackerel fishing up to six or seven miles off the Georgia coast, ranging from outboards with 18 to 100 horsepower, from 12 feet long to 20 foot inboards and even larger craft, depending on weather conditions and the nerve of the skippers.

Generally speaking, boats used for Spanish mackerel fishing on the Georgia coast range anywhere from 18 to 100 horsepower outboards, from 12 to 20 feet in length, to even larger inboard engines. Because of the added danger from possible breakdowns, running out of gas, or rough weather, it's a good idea to always be accompanied by acquaintances in another boat, in case you need help. Many coastal fishermen also carry an extra outboard motor on the transom or under the bow, in case of emergencies, along with plenty of extra gas. Keeping a wary eye on the weather and getting the advance forecast on the radio before going out is extremely important. Many times the sea is as calm as glass in the summer. But under some combinations of tide and wind, such as a falling tide and a northeast wind, the sounds can become virtually impassable to small boats, with six foot and even higher waves, depending on the wind velocity and the depth of the water.

In addition to common sense items like extra food and water, protective rain gear, and repair tools and parts, Coast Guard regulations on navigable waterways require considerably more legal precautions for safety equipment. This especially applies to lights after dark. If you are not familiar with Coast Guard regulations, you should write for a copy from the Coast Guard in Miami or Washington, or write the State Game and Fish Commission's offices in Brunswick, Savannah, or Atlanta. Requirements set by state law and by regulations for inland waters are not as stringent as for coastal waters, in case you plan to use your own boat. Most marinas have boat launching hoists, often requiring lifting rings on boats.

If you want to rent a boat and guide, you can usually make arrangements in advance from most of the larger coastal marinas listed by the State Game and Fish Commission, the Coastal Planning and Development Commission in Brunswick, and by the local chambers of commerce in the individual counties of the coast.

Tackle? You can use your regular freshwater spinning, casting, or even fly tackle, primarily for trolling, although at times Spanish mackerel can be caught casting into the schools. Some anglers on the bigger trolling boats use heavy tackle so the fish can be quickly "horsed" in without stopping the boat, but this destroys the sport in mackerel fishing. For meat fishing, it's ideal.

The most popular single lure for "small mackerel" as the Spanish are described by coastal residents, is Clark's Squid Spoon, a long diamond shaped silver spoon with a rigid hood extending from the lower end of the spoon. The exact size that mackerel are hitting at the moment seems to depend on the size of the small minnows that they are hit-

Because of their extremely tiny scales, mackerel can be quickly and easily filleted. These eight fish can be completely gutted, filleted, and washed in five minutes, or less.

ting at the time. Sometimes smaller spoons, sometimes larger ones are preferred, but the number one size is an all-round favorite. The red bead on the front of the spoon seems to be optional, but some anglers swear by it.

Other lures that Spanish mackerel can sometimes be caught on include Barracuda spoons and small jigs, with nylon, hair, or feathers, in almost any color, including silver and yellow. In addition, live bait such as shrimp or dead minnows can be used, either with a float, drifting, or trolling.

In addition to the lure, the most important item of mackerel tackle is a good number one wire leader, at least six inches long for casting and three feet long for trolling. You should use a swivel and snap above the spoon for maximum action, with a second swivel above the wire leader to help prevent twisting your line so badly while trolling, although you'll probably have to throw your kinked up line away after a few trips, especially if you are using light monofilament line such as four or eight pound test. Frequently, your line will get so twisted that a hooked fish will easily break your line. Always use a black or corroded swivel, because mackerel frequently hit shiny objects in the water, cutting off your leader!

In addition to a light wire leader, you could use a 30 to 50 pound test monofilament leader, especially if the fish seem to be spooky of the wire. Above all, don't allow your wire leader to get kinks in it, since this weakens it and effects the action of your lure in the water.

What's the best time for Spanish mackerel? July and August are the best months on the Georgia coast, but mackerel first turn up in catchable numbers in May and hang around until September, before migrating back south for the winter to warmer waters.

In addition to Spanish mackerel, bluefish migrate into coastal waters at the same time, and are sometimes caught alongside mackerel with the same techniques and lures, since the two species have almost identical feeding habits. The blue is more common farther north than the Spanish mackerel, which seldom swim north of Cape Cod, and are most common south of the Chesapeake Bay, while bluefish are most common south of Cape Cod, sometimes reaching Nova Scotia.

Bluefish seem to be more common in some years than others. For an unknown reason both mackerel and bluefish tend to be more finicky about what they bite the longer they stay in an area. Frequently, bluefish can be seen in schools feeding in the same areas as Spanish Mackerel, but the blues or the mackerel will refuse to take a lure, especially one with a wire leader. Since their teeth are very sharp, keeping a lure on can be a problem with monofilament.

While it is a common practice of many fishermen to race up to a school of mackerel or bluefish and cast or troll through the middle of the school, experienced fishermen feel that this makes the fish much more boat shy, and leads to them sounding much quicker than they would if boats kept drifting or trolling at a regular speed, working lures ahead of the direction of the school or alongside the part of the school closest to the angler.

When trolling, you won't have to set the hook. Once on the hook, keep a tight line!

Results also seem to be best early in the morning and late in the day, since the small bait fish that mackerel feed on are sensitive to the light and heat of the sun, moving deeper in the water during the middle of the day, followed by the feeding fish. Tide seems to have little effect on the fishing offshore, although more mackerel and the bait fish enter the mouths of the sounds at high tide. Unless visibility is good and you have a chart showing navigation lights at night, don't stay outside the sound at night. Charts can be ordered from the U.S. Coast and Geodetic Survey, Washington, D.C.

Mackerel prefer a moving bait or lure. Casting or trolling results are considerably improved by "jigging" or jerking the lure along irregularly, with a pumping action. This gives more flash to the lure and teases the mackerel to charge, although at times they will hit almost any kind of lure or bait worked in any conceivable fashion. At such times, catches of hundreds of mackerel per boat are not unusual, since there are no legal limits on the size or number of saltwater fish that you can catch in Georgia. No fishing license is required in saltwater, either.

But on the other hand, sometimes mackerel simply won't bite, even when there are plenty of them thrashing the surface feeding on bait fish. Sometimes a strip of pork rind on a spoon will help, or a small piece of shrimp. When this fails, the fish may take some type of odd lure presented to them like a light spoon bounced across the water, or even a top water popping plug, various small plugs, or small spinners.

But even if the mackerel still won't bite, you won't go away disappointed, because a Spanish mackerel fishing expedition on the rim of the sea is an adventure that you'll never forget.

They're Teaching Fishing In School!

By Dean Wohlgemuth

■ Only a few years ago, a youngster who played hooky and went fishing could expect to find himself in hot water when the teacher found out. Now, there are teachers in Fulton County who are assigning a fishing trip for homework! And the schools are even furnishing the equipment.

It's all a part of an advanced new curriculum for the large metropolitan school system, aimed at teaching students forms of recreation which will be useful to them for the rest of their lives.

Many youngsters, particularly those in urban areas, have little if any opportunity to learn of outdoor sports, and their value as wholesome, healthy recreation. Aware of this, the Fulton County School system has taken steps to equip youngsters with the opportunity to learn.

When Fulton County went under the quarter system in the fall of 1968, a new quarter-long (12-week) class was unveiled, which teaches sections of four weeks each in archery, angling and camping. The classes are taught only at high school level.

What's even more amazing about the course is that it is fully co-educational, and very successfully so! Strictly a voluntary class, teachers are finding a high percentage of girls are interested in learning about fishing and camping. Some schools have even had co-ed weekend camping trips, and haven't experienced the least sign of any problem with the students.

Realizing that participation in one outdoor sport leads to another, the school system worked out the program of the three different sports, and hopes to expand next summer into yet another field, where boating and water sports will be included.

Miss Rebecca Dinard, Director of Health and Physical Education for the Fulton County School System, heads up the entire program, but refuses to take any credit for inaugurating the innovation. "All the physical education teachers and staff members worked on this program jointly, and all of them deserve credit," she said.

Three schools opened the fall quarter with this class this year—Hapeville, College Park and Campbell of Fairburn, all high schools. Getting into it for the spring quarter of 1969 were Roswell, North Springs, Headland, Hapeville, and College Park. There will probably be more and more schools starting the program each quarter, Miss Dinard said. There are currently 15 high schools in the Fulton system and another will be added this fall. These classes are not taught during the winter weather because weather prohibits outdoor sessions, particularly in camping.

The camping course does not involve organized camps, but teaches camping for the individual or for families. Each school teaching the course will eventuaally have a full complement of equipment for all classes. At present a few of the schools have equipment, and in some cases they are sharing it with other schools who have none.

Each school will have nine spincasting (pushbutton) type rods and reels, three open faced spinning reels and rods, and three fly rods and reels. Practice plugs are used to teach casting.

Light target bows, arrows, and targets are furnished for archery. Camping gear takes up the bulk of the equipment. Each school eventually will have an umbrella tent, high wall tent and a pup tent, along with Coleman stoves and lanterns, camp stools, axes, cots, tables, cooking utensils and the whole works, to show the youngsters what equipment is available and how to use it.

"The increased interest throughout the nation in outdoor recreation, particularly camping, had a large effect in prompting such classes," said Miss Dinard. "Also, if we are to believe what we are told, the future will bring even more leisure time than we have now. We hear there will be four-day work weeks and even perhaps two-day work weeks. This will mean a great deal of free time, not only for youngsters but for adults.

"While physical development of a youngster is one of our major goals, it isn't the only one. Of equal importance is developing skill and knowledge in activities they can enjoy now and

My, how school has changed! These Roswell High students are watching a demonstration of the various types of fishing tackle, and how to use them. It's part of their physical education program in Fulton County Schools.

In a coed class, a young lady tries her hand with a fly casting outfit, and proves the technique of casting can be quickly and easily overcome. The Game and Fish Commission's Dean Wohlgemuth points out the weight of the fly line is what makes the cast.

later, with emphasis on what they can do for the rest of their lives," she said.

"By teaching them lifetime sports with a carryover value, something they can use the rest of their lives, they will be able to enjoy what they learn always. This may help head off problems, not only juvenile delinquency, but even the possibility of adult delinquency," she said. "We already have problems in our society with alcohol and drug addiction, because people have not learned proper ways to release their tensions and relax. We hope fishing, camping, and archery classes will help to prevent this."

Part of the objective of the course is to learn to appreciate our natural resources. "Once Fulton County was pretty much rural, but now it's overwhelmingly urban," she said. "Many of the youngsters who grow up in an urban atmosphere have very limited opportunity to learn about nature, to go fishing and camping.

Realizing that the course cannot make expert outdoorsmen of the youngsters, the school system wisely plans only on supplying a student the basic knowledge needed to get started on his own. "We hope to introduce many to outdoor sports and get their feet wet. Many youngsters hold back, fearing to show their lack of knowledge. Once they learn how much fun the course can be, and how much they can learn, more students get interested and classes grow in size as the other students become intrigued by what they hear from those who have taken the classes."

This writer aided in initiating several classes at both Hapeville and Roswell high schools. The percentage of girls in the class attested to the universal appeal of the curriculum. More important, it was easy to see from the attention given to the speaker, while giving a clinic on the various types of tackle, and where and how to use them, that both sexes were quite interested in the subject matter. Often, girls were more attentive than boys, probably because some of the boys already had a basic knowledge of the sport.

"One of the nice things of being coeducational is the spirit of cooperation shown between boys and girls, particularly in camping. The boys do the heavy work in handling and setting up tents, while girls handle lighter camp chores," Miss Dinard said.

A few other school systems in other parts of the country have barely scratched the surface in similar courses, particularly in angling and archery. The whole concept is a new one for Georgia schools, but it wouldn't be at all surprising if the idea spread rapidly throughout the country.

What does the future hold for such classes? Fulton schools go into their fourth quarter, held during the summer, this year. It is hoped that next summer will bring yet another course in outdoor recreation, involving boating, water skiing, and boating safety. Included under boating will be both power and sail boats, and canoeing.

One problem must be solved, however, for such classes, that of transportation to water. It is hoped that school buses can be used, however, this does not come under normal use of the buses, thus finances must come from somewhere.

Further, it won't be possible for the school system to provide boats. Some teachers who are already interested in outdoor recreation and have boats of their own have offered them for use.

"School will likely start an hour earlier during the summer since many schools are not air conditioned, and will be uncomfortable during the hot part of the day. The boating classes would be held twice weekly, the last hour of the day, and in fact, would possibly continue throughout the rest of the afternoon. We expect that the students will be happy to stay after class and enjoy themselves!" said Miss Dinard.

The attentiveness of the students proved the value of the course. Youngsters in an urban area lack the opportunity to learn as much about outdoor sports as their rural counterparts. Other phases of the class in outdoor recreation include camping and archery.

Mrs. Carol Grayson, physical education instructor at Roswell High, lays out a cast on the school gym floor, proving to her students that it's really not as hard as it looks. Though she had fished with spinning tackle, it was her first attempt at flycasting.

the outdoor world

BAGBY NAMED GEORGIAN OF THE YEAR

State Game and Fish Commission Director George T. Bagby (center) has been named "1969 Georgian of the Year" by the Georgia Association of Broadcasters at their annual convention in Savannah this summer.

The award is presented each year to a Georgian which the GAB feels has done a singularly outstanding job in building, improving, and promoting the state. Last year's winner, Secretary of State Ben W. Fortson, Jr. (seated) presented the award to Bagby.

The Association said Bagby, an ardent outdoorsman who has served as director of the Commission since 1967, was recognized as Georgian of the Year "because of his fight to preserve in its natural state the seashores of our state."

Bagby was an outspoken leader of conservationists who successfully blocked efforts to grant a mineral lease for phosphate mining on state underwater lands off the Chatham County coast to the Kerr-McGee Corporation of Oklahoma in 1968. In recent months, he has also championed efforts to save Georgia's natural freshwater rivers and wetlands from destruction as a part of agricultural flood control projects that feature channelization and drainage.

ED DODD WINS NATIONAL CONSERVATIONIST AWARD

■ Bar Harbor, Maine ... Georgia's Ed Dodd, creator of the famous "Mark Trail" comic strip, has won his second national award in three years for his conservation efforts.

Dodd was named winner of the 1969 special award of merit of the American Association for Conservation Information at the Association's annual convention in Bar Harbor, Maine, Tuesday, June 17. The group is composed primarily of state and federal information officers in the wildlife and conservation fields.

In 1967, Dodd was named "Conservationist of the Year" by the National Wildlife Federation.

A native of Gainesville, Georgia, Dodd's syndicated comic strip reaches millions of readers every day in hundreds of daily newspapers throughout the world. He now lives and works at his studio in Sandy Springs in the northern part of Atlanta.

In addition to Dodd, Georgia's State Game and Fish Commission won an international award for it's publication "How to Have Small Game on Your Land." The association presented this award for a miscellaneous publication in the conservation field to the Commission for the booklet which was written by the commission's game biologists for land owners in the state. The award was accepted by Jim Morrison, Coordinator of Information and Education of the Georgia Game and Fish Commission.

In addition to winning one of the top ten awards of the international organization, the Georgia agency's public information efforts were rated as seventh overall out of 36 state and Canadian province conservation agencies entering the 1968 awards competition.

Tires Get Second Use

Biological aide Lloyd Harn prepares a portion of 2,000 old automobile tires at the Game and Fish Commission's Richmond Hill Hatchery near Savannah to be submerged off shore to create three experimental artificial fishing reefs. (Photo by John Culler)

■ Three artificial reefs made from old automobile tires are being built on the coast by the Georgia Game and Fish Commission.

The quarter-acre reefs are the first efforts of a five-year inshore reef project by the Commission designed to improve fishing in the state's estuarine areas. All three are scheduled to be completed this summer.

Each reef will be made from approximately 2,000 automobile tires and will cover about one-quarter acre. Each reef will consist of 80 units of tires linked together with metal rods.

Sites selected for the three reefs include the Tybee River about one-half mile above Lazaretto Creek; Timmons River just off Colonels Island; and Hampton River, which seperates St. Simons and Little St. Simons Islands.

Each reef will be built from the shore out, with the deepest part of the reef in about 20 feet of water.

During the first year Game and Fish Commission biologists will maintain a close watch on the reefs to see how effective they are in drawing and holding fish. If the reefs are successful, plans are to build additional reefs.

Fish biologist James Nix said shellfish, clams, oysters and other food organisms would attach themselves to the tires, thus drawing small bait fish and larger fish into the area.

"It has been demonstrated in other states that reefs of this type do improve fishing," Nix said. "California, Alabama, Texas and Florida have all had success with reefs made from old tires."

Nix said a substantial number of fish moved into the area within two months after the reefs in California were built. "We know that the tires will work better than junk cars some states have used, because the cars quickly rust away in the salt water."

A commission spokesman said the reefs were being put in the estuarine areas so they would be accessable to small boats. All reefs will be marked.

BLACKBURN HITS ALCOVY CHANNEL

■ Georgia's Fourth District U. S. Congressman, Ben Blackburn, has raised serious questions on the feasibility of the proposed Alcovy River and Flat Creek-Cornish Creek Watershed Projects because of what he terms the "tragic aftermath" of "channelization", which has seen the destruction of countless irreplaceable streams in Georgia and throughout the Nation in the past decade.

Channelization programs, designed for flood control and land reclamation, are carried out under Public Law 566, the "Watershed Protection and Flood Prevention Act," administered by the Soil Conservation Service of the U. S. Department of Agriculture.

In expressing his deep concern, the Congressman said that channelization—the deepening, clearing and straightening of stream beds by bulldozers and draglines — hangs as a heavy threat over every stream in north and central Georgia. Channelization projects are now believed to be causing irrevocable basic changes in the entire areas involved, and are resulting in the loss of thousands of acres of scenic beauty.

Blackburn suggests that on the basis of what has happened in Georgia and in fact across the Nation, the benefits which have come because of channelization are far outweighed by the loss of untold acres of hardwood, the almost complete destruction of natural recreation areas, game, fish and wildlife, and the subsequent lowering of the surrounding water table.

"It is ironic that while a number of Federal agencies, including even the U. S. Department of Agriculture, are spending large sums on water and wildlife reclamation, seeding forests, and attempting to rebuild the natural ecology, another agency in effect is spending millions to destroy vast water areas, the habitats of fish and wildlife, and natural beauty spots," he said.

"Studies of the effects of channelization in other areas of our Nation indicate a drastic reduction of game fish. One study, from North Carolina, compared the fish population of 23 channeled, and 36 unchanneled streams, and found a 90% reduction in the weight and number of game fish per acre in streams channeled. This experience indicates that in a 40-year period after channelization, fish and wildlife would not recover," Blackburn said.

The Soil Conservation Service contends that channelization, which includes the draining of swamps, provides the subsequent return to "use" of literally millions of acres of land, and claims the elimination of flood possibilities in the streams which have been channelized.

As hundred of thousands of acres are placed in Federal soil banks, the Soil Conservation Service is spending more millions to "reclaim land" for farmers. Blackburn asks the question, "Why is it necessary to 'reclaim land' at the same time the Federal Government is spending millions in Georgia to keep out of production land which is presently available?"

The Alcovy Rivershed Project calls for the channelization of more than 80 miles of the Alcovy River, known for its fish and wildlife and for its surrounding thousands of acres of beautiful natural forest and river swamp. Lake Jackson, into which the Alcovy flows, has become a major recreation area and source of game fish. Under the careful management of the Georgia State Game and Fish Commission, the fish population is increasing. Blackburn said that he shares the concern of the Game and Fish Commission, residents, and conservation leader that under channelization, the clear waters of the Lake will be drastically muddied by the torrent pouring in from the river, with the resulting destriction of Lake Jackson as a recreation and fishing area.

The expenditure for the Alcovy Project for up to 80.8 miles of channeling is estimated at $3,494,432.00, to benefit 4,326 acres of swampland. The cost of channelization comes to $807.77 an acre. Oddly enough, Blackburn stated, "estimated land value of the improved swampland is presently $300.00 an acre! If equal funds were placed in an interest-bearing bank or securities accounts, landowners could more than be repaid for possible flood damage or for not planting crops. The taxpayers could save more than $500 an acre if the land were purchased and the swamp declared a wildlife preserve!"

Water management officials claim that far from an effective method of flood control, a channeled stream acts as a chute through which valuable water rushes to major tributaries toward the seas, lost before it can be of benefit to the land. While channelization projects in the past have served to reduce the incidences of flooding to once every three years, when flood waters pour down channelized streams, the devastation can be far more widespread, and more often than admitted, these streams are known to cause a worse flooding problem than ever before at different times and in different places further downstream.

"The after-effects of channelization are seen in Georgia's Little River, channeled years ago, which has felt the additional effect of 'slumping,' the process where rushing water cuts into the steep banks, caves them, and causes a serious erosion and land loss problem. Along the ditch which was Little River, the bank collapse has already resulted in serious damage to many portions of the 'reclaimed land.' Little River's muddy waters rush to Lake Allatoona, and where they enter the lake is much of what is left of the old river."

"Too, one of the often unnoticed but very real dangers of channelization is swamp drainage. Swamps are among the world's finest reservoirs and purification areas, acting as water filters and natural oxidation basins, depositing the silt loads of the river over large areas, cleaning the river as its flows through the countryside. Water emerging from a river swamp is purer than water from the best modern treatment plants," Blackburn said.

"Water management officials are concerned that swamp drainage through channelization will result in ever-increasing flood conditions since swamps are retention areas which serve the dual purpose of absorbing water during wet seasons, and feeding the rivers during the dry summer months," he said.

Blackburn added that "the continuation of channelization projects, which tear away what it has taken nature centuries to build, will see the loss of a great part of the beauty and bounty of Georgia and the Nation, the streams and rivers existing today."

Sportsmen Speak...

OPPOSES CHANNELS

I am opposed to the channelization of rivers which I believe to be destructive to our natural resources by turning natural rivers into muddy ditches and destroying riverbank nesting places and refuges of our wild life. In addition, this activity is aesthetically a calamity. It is time man shows more respect for nature lest we destroy our environment and thus ourselves as well.

The Alcovy River project in Georgia is specifically the project I wish to go on record as opposing. The channelization—not the reservoirs. DO NOT let the dredging of the Alcovy and other Georgia rivers proceed!

Mary C. Nikas
Atlanta, Ga.

SCENIC RIVER

You are aware of plans by the Soil Conservation Service to "channelize" the Alcovy River. As an ecologist, I am particularly aware of our swamps, both esthetic and practical. The Alcovy River swamp is currently doing a fine job of both natural flood control and silt removal from overflow waters at no cost to anyone.

You should also be aware that the Alcovy River swamp is scheduled for preservation under the state Scenic Rivers Act. I urge you to oppose this destruction of a valuable natural and scenic resource, which would set a precedent for other such areas.

J. David Yount
Athens, Ga.

DECENT WATER

What's wrong with that bunch of idiots that are trying to ruin Jackson Lake? I don't guess they know the Alcovy River is the only decent water running into Lake Jackson. The fishing in Lake Jackson hasn't been none too good for the past two years and it will drop more if the plans go through to change the Alcovy River. If you think it's muddy now just wait until they change the river.

I don't think my two cents worth will do any good but you can print my feelings in the **Game and Fish** magazine if you want to.

Norman B. Atkinson
Lake City, Fla.

SCS LAKES

The picture of the Little River Project inside the fly leaf and the one on Page 15 appear to be the same except at a different time. I wish you could get a picture of the same as of now.

I had a 125 acre farm on Densmore Road, N. Fulton Co., that this project split right down the middle. I thought I was getting something for nothing (I should have had better sense) as such a thing had never happened to me. But, Brother, I paid for my folly. I had the second dam, and I use the words "I Had" as all the dam and the spillway was on my property, along with about 10 acres under water.

The minute the dam started my troubles began. Folks from three to four counties began running in over my property and trespassing on it, although I had it tightly posted. Their opinion was the federal Government was building it and it was public property. You had very little argument.

The net result: my private pond was being fished before the new lake had any fish in it; my boat was sunk; my house was burned to the ground, with a loss of about $10,000. So, I sold out as soon as I could get what I considered a fair market.

I am of the opinion our representatives are not the ones to work upon, as the other side are also working on them, and I presume have more weight than we. The land owner is the one to work upon. I had to sign up, giving them the privilege to do the work or to come across my property. Frankly, I do not recall what I signed—it might have been just for the dam. But I do know I helped get other neighbors to sign up for the project. I also know there were three fellows down the stream from me that held it up for some time until a very prominent fellow got them to sign, and I always felt perhaps by warming their palm.

There were five dams within five miles of my dam. We were led to believe that the project would open vast advantages for the whole territory and really put it on the map. If there was any general advantage whatever I never knew of it. However, I do know three or four Town of Gentleman Farmers have fancy pastures where the old swamp was, but all the balance has just grown up in much worse condition than before.

You should have some pictures taken on the bridge of what some call "Chicken Creek" as of now. Also on Thompson road on the same creek lower down.

I expect to write Fletcher Thompson and also Herman Talmadge on the subject; but in my opinion the land owner holds the ace. I have no interest whatever in Alcovy or Lake Jackson; except by my experience.

George O. King, Sr.
Atlanta, Ga.

The pictures of channelization shown with the editorial in June were both of the same stream on Little River's tributary, Mill Creek, in Cherokee County. Both pictures show different angles of the same section (the same tall pine tree in the distance appears in both pictures) and were made on the same day in May of 1969 by the State Game and Fish Commission. Although the dredging was completed by the Soil Conservation Service in 1966, the spoil banks of dredged material are still bare of much vegetation and are covered with eroding gullies.

DRAINAGE HELPS WILDLIFE?

You all should know that drainage improves game production! Soggy land may support an occasional woodcock, but not ducks. We need ponds or swamp pools for ducks. Drained land locally has been shown to improve production and maintenance for snipe, turkey, dove, quail, deer, squirrel, hogs, etc., etc. This was proved in Snuff Box Swamp in McIntosh County. The drainage canals were responsible also for improved hardwood, pine, and even cypress growth, together with better game production.

What game or fish could profit more by leaving the Alcovy the way it is? Wouldn't they all do better if it were improved? I'm a "dyed-in-the-wool" sportsman, and I have found no evidence that these projects would hurt either game or fish in the long run. The opposite is true!

Bill Tailer,
Mayor,
Darien, Ga.

Dr. Tailer's letter was written prior to the publication of last month's special edition of Game & Fish devoted exclusively to stream channelization and drainage and their effects on wildlife, in which most of the questions he raises were answered in detail. Copies of that issue are available to anyone on request, along with copies of biological studies of damage caused to fish and wildlife habitat by similar projects in the states of Mississippi and North Carolina, which both share wildlife habitat similar to many sections of Georgia, including the coast. We have offered to show a set of color slides illustrating this damage in completed Georgia watershed projects to Dr. Tailer and the Darien-McIntosh Chamber of Commerce. Arrangements to see the slides may be made through the Atlanta public information office of the State Game and Fish Commission by any interested group.

FRIENDLY FOX?

I am enclosing a snapshot of Jeffrey Roper of Cleveland, Ga. holding a fox in one hand and a hen turkey in the other.

There is a little story behind this in that Labur Adams of Robertstown, Ga. has a flock of semi wild turkeys, in other words they run loose and are from some original wild stock.

Before Mr. Adams was able to trap the fox it caught 5 of his turkey hens, 24 chicks, and 2 gobblers.

Thought this might be a good story for you.

W. C. Dixon
Cleveland, Ga.

Mr. Dixon is the member of the State Game and Fish Commission from the Ninth Congressional District, and currently serves as vice-chairman of the Commission.

CARP CATCH

My eleven year old son, Reid, and his fourteen year old brother, Rob, at Lake Lanier in one day caught 59 carp, averaging 3½ lbs. each. Here are the first 10.

Although these are the pride of the Orient for eating fish and are not generally eaten in this country to my knowledge, they are terrific fighting fish and they had quite a ball catching them!

The other gentleman is my Dad, Charles L. Davidson, Sr. These were caught at his boat house on the west side of Lake Lanier,

near the entrance to Two Mile Creek. He has been baiting with corn for several years and, to my opinion, this is an excellent rough fish control program.

The carp were caught on spinning rods, using a single grain of corn on a small bream hook. Some weighed in excess of 6 lbs.

Charles L. Davidson, Jr.
Avondale Estates, Georgia

Mr. Davidson is the member of the State Game and Fish Commission representing the Fifth Congressional District. He is also a former Chairman of the Commission.

BEAUTIFUL OGEECHEE

The June issue of **Game and Fish** which I have just received is simply beautiful.

Not only this, but most interesting are the articles concerning the Ogeechee mystery and the Okefenokee Swamp. I have been on the Ogeechee many times myself and although very treacherous at certain points, it is a most beautiful river.

Mr. Phillip Carr's story about one of his trips was very interesting to read and I could follow it perfectly, enjoying every minute. I read on, understanding exactly his problems, as I, too, have had some odd, unbelieveable experiences fishing in the beautiful Ogeechee.

As for the Okefenokee, my visit there was more in the capacity of a tourist.

Elizabeth R. Kelly
Colonel's Island
Liberty County
McIntosh, Georgia

HOOKED TURKEY

Just received my June issue of Georgia **Game & Fish** Magazine and as usual pushed aside all other mail until I scanned through it.

I was very interested in Herb Wyatt's "Booby Trapped Rivers" regarding limb lines, bush hooks, or bush lines, or whatever term you might care to use.

Thought you might be interested in the enclosed photo of the remains of a wild turkey I found in Boones Lake on the Satilla river, which had quite evidently been booby trapped. The hook was dangling about 16 or 18 inches above a small sand bar, from which, I assumed, the turkey was attempting to to take off, or land, when the wing feathers became entangled in the line. The hook itself was hanging free, but partially straightened, as you can see. Perhaps the hook caught him first and then the wing feathers became entangled.

Just proves these limb lines are dangerous to not only fish and humans, but to smart wild turkeys as well.

Dr. W. G. Brown, D.D.S.
Blackshear, Ga.

BLACK FOX SQUIRREL

I thought that you and your readers would be interested in an unusual experience that I had recently.

While traveling by automobile between Gordon and Gray, Georgia, in company with Ken Murphy, I observed a jet black fox squirrel. We stopped the car and watched this unusual creature for about five minutes. It was not dark grey but jet black from nose to tail.

In twenty-five years of tramping our fields and streams of the Southeastern area I have never before seen a black fox squirrel. Do you or does the State Game and Fish Commission have any information about such a creature.

Robert L. Mitchell
Atlanta, Ga.

Even though they are not numerous, black fox squirrels are not uncommon, primarily in pecan groves and pine forests of South Georgia and other southeastern states. (Audubon painted a black fox squirrel near New Orleans, shot on March 24, 1837.)

SAVE ISLANDS

Georgia **Game and Fish** Magazine brings something interesting and to the minute each month.

Just want to second the letter last month on Cumberland Island, from David E. Tyne, Jesup, Ga.

Being "allowed" on Jekyll was a real treat, making the boat trip over from St. Simons, when just a kid. Now look at it. What a stomach ache it does throw you.

Whatever it takes, let's all fight to preserve Cumberland and any of the neighbor islands. Leave them as they are, keep a little of what mother nature is all about. The islands should be "kept up," sure, someone in command, but not for goodness sake another hodge podge Jekyll. How sweet it was and how sour it is.

Too much of our world has been LOST for the sake of selfish progress already!

Would like to help where I can.

Sydney L. Jolly
Cartersville, Ga.

MONEY CHANGERS

Continued from IFC

But not all hope is gone. After a valiant struggle, Representative Reid Harris of Brunswick did finally succeed in getting the Georgia House to pass a trimmed down Wetlands Protection Bill which would have placed a major roadblock in the way of marsh meddlers by simply requiring them to prove their ownership to marsh areas that they propose to destroy. The bill was greatly weakened by leaving final approval of marsh filling and dredging permits to local county and city governments instead of to a state board of professional conservationists which would have been less vulnerable to big business pressures.

This measure, H. B. 212, now rests in the hands of the Senate Industry and Labor Committee, an ominous sounding title for consideration of such an important natural resources bill. However, since all the bills of this year's regular session remain alive through next year's session, it can be easily revived, even strengthened, by this committee, if public interest is great enough. By this method, it would not have to face another hostile House committee as an entirely new bill would. The committee plans to hold public hearings on the proposal this September on the Georgia coast. The dates and locations will be announced soon. Hearings will be held jointly with the Senate Judiciary Committee, which has a bill identical to the original, stronger version of H. B. 212.

The best way to start saving the only coast Georgia will ever have is for every interested Georgian to get busy contacting his own local representative and senator to urge his support for a revitalized H. B. 212. Special attention in the form of personal visits, telephone calls, telegrams, letters, and post cards should be given between now and January to coastal representatives and senators, and to each member of the Senate Industry and Labor Committee:

Holloway, A. W., Chairman
District 12
Dougherty County
Wholesaler
P. O. Box 588
Albany, Georgia 31702

Adams, Ronald F., Vice-Chairman
District 5
Glynn, Liberty, Long, McIntosh Counties
Attorney
P. O. Box 857
Brunswick, Georgia 31520

Abney, Billy Shaw, Secretary
District 53
Chattooga, Dade, Walker Counties
Attorney
P. O. Box 607
LaFayette, Georgia 30728

Garrard, Ed
District 37
Fulton County
Real Estate Broker
956 Plymouth Road, NE
Atlanta, Georgia 30306

Kidd, Culver
District 25
Baldwin, Hancock, Washington, Wilkinson Counties
Drug Store Owner
P. O. Box 370
Milledgeville, Georgia 31061

McGill, Sam P.
District 24
Wilkes, Lincoln, Columbia, McDuffie, Glascock, Warren, Taliaferro, Green Counties
Automobile Dealer
Tignall Road
Washington, Georgia 30673

Padgett, M. J.
District 23
Richmond County
Real Estate

Route 2
McBean, Georgia 30908

Reeder, Ed
District 55
DeKalb County
Sales Engineer
1583 West Austin Road
Decatur, Georgia 30032

Riley, John R.
District 1
Chatham County
Industrialist
P. O. Box 9641
Savannah, Georgia 31402

Scott, Turner R.
District 17
Harris, Macon, Marion, Schley, Talbot, Taylor, Upson Counties
Retired — Executive
B. F. Goodrich Co.
P. O. Box 348
Thomaston, Georgia 30286

Smith, Armstrong
District 34
Fulton County
Paint Manufacturer
1405 DeLowe Drive, SW
Atlanta, Georgia 30311

Sportsman's Calendar

SEASONS OPEN THIS MONTH

FISHING SEASON

All streams, lakes, and ponds of Georgia are open to fishing throughout the entire year with the exception of the mountain trout waters of North Georgia. See trout regulations for details. Sunday fishing is allowed.

DAILY CREEL LIMITS

Bream (Bluegill, Red Breast, and other species of Bream)	50
Crappie, Yellow Perch	50
White Bass	30
Largemouth Black Bass, Smallmouth Bass, Redeye Bass, and Spotted Bass or Kentucky Bass	15
Striped Bass or Rock Fish	5
Chain Pickerel or Jack	15
Brook or Speckled Trout, Rainbow Trout and Brown Trout	8
White Shad, Hickory Shad	8
Sauger, Walleye	8
Muskelunge	2
Channel Catfish	No Limit

There is a creel limit of five largemouth bass in Lake Russell, and the McDuffie Public Fishing Area. There is a creel limit of 25 sunfish of all species and five largemouth bass on Lake Worth. There is a creel limit of five largemouth bass, five chain pickerel, and 25 sunfish (including bluegill, warmouth, redbreast, stumpknocker, and round flier) on the Suwannee River. Channel catfish may not be taken on the Suwannee River.

POSSESSION LIMITS

No person may possess at any time more than 50 fish in the aggregate or total of all the species named except channel catfish and no more than 15 large or smallmouth bass, 30 white bass, or 8 trout of any or all species in the aggregate or total possession.

SIZE LIMITS

There are no minimum or maximum size limits on game fish in Georgia, with the exceptions noted in the trout regulations and in the following areas which all have a ten-inch size limit on largemouth bass: Lakes Blackshear, Jackson, and Russell; McDuffie Public Fishing Area; Williams Public Fishing Area and in the state park lakes: Indian Springs, Hard Labor Creek, Franklin D. Roosevelt, Fort Mountain, Laura S. Walker, A. H. Stevens, Magnolia Springs, Gordonia Altamaha, Fort Yargo and High Falls State Park. There is a size limit of 12 inches on largemouth bass on Lake Tobesofkee, Suwannee River, and Lake Worth. The Suwannee River has a size limit of 16 inches on chain pickerel or jack. The use of baskets, set hooks, trot lines, nets, and all other types of commercial fishing gear are prohibited in all State Park Lakes.

For further information on state parks and their facilities, contact the State Parks Department, 7 Hunter Street, Atlanta, Georgia 30334. For information on Lake Russell and other Chattahoochee National Forest recreation areas, contact the U. S. Forest Service, Peachtree-7th Building, Atlanta, Georgia 30323.

TIDE TABLE

AUGUST-SEPTEMBER 1969

GEORGIA COASTAL WATERS

HOW TO USE THESE TABLES

The calculations are for the outer bar. Find the reading for the desired tide. In the table below find the number of minutes to add to correct for the place you are going to fish or swim. The outer bar calculation, plus this correction, gives the correct reading for the point desired.

Adjust For Daylight Saving Time By Adding One Hour

CORRECTION TABLE

The times given are for Savannah River entrance (Tybee).

	Hrs.	Min.
Savannah High	0	44
Savannah (Low)	*	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabaw Sound	0	05
Vernon View	0	35
Coffee Bluff	0	55
Ogeechee River Bridge	3	50
St. Catherine Sound	0	25
Sapelo Sound	0	00
Brunswick Bar	0	00
St. Simon Pier	0	25
Frederica Bridge	0	50
McKay Bridge	0	50
Brunswick East River	0	50
Turtle River Bridge	0	55
Turtle River, Crispen Is.	1	10
Humpback Bridge	1	00
Jekyll Point	0	30
Jointer Island		55
Hampton River Village Creek Ent.	0	20
Village Fishing Camp	0	45
Taylor Fishing Camp	1	00
Altamaha Fishing Park, Everett, Ga	4	00
Two-Way Fishing Camp, S. Altamaha	2	00

	Full Moon	Last Quarter	New Moon	First Quarter
AUG.	27	5	13	20
SEPT.	4	12	19	26

AUGUST, 1969

Day	A.M.	HIGH WATER HT.	P.M.	H.T	LOW WATER A.M.	P.M.
1. Fri.	10:30	7.6	10:54	7.6	4:30	4:42
2. Sat.	11:24	7.5	11:42	7.1	5:12	5:36
3. Sun.	....	..	12:12	7.3	6:00	6:24
4. Mon.	12:36	6.6	1:06	7.1	6:48	7:24
5. Tues.	1:24	6.1	1:54	6.9	7:42	8:24
6. Wed.	2:12	5.7	2:54	6.7	8:36	9:24
7. Thurs.	3:12	5.4	3:54	6.7	9:30	10:18
8. Fri.	4:18	5.4	4:48	6.8	10:24	11:12
9. Sat.	5:18	5.5	5:42	7.0	11:12	..
10. Sun.	6:06	5.7	6:24	7.2	12:00	12:00
11. Mon.	6:48	6.0	7:06	7.4	12:42	12:48
12. Tues.	7:24	6.2	7:36	7.5	1:24	1:30
13. Wed.	8:00	6.4	8:12	7.5	2:06	2:12
14. Thurs.	8:30	6.6	8:42	7.5	2:42	2:54
15. Fri.	9:06	6.8	9:18	7.4	3:12	3:30
16. Sat.	9:42	7.0	9:54	7.2	3:48	4:06
17. Sun.	10:18	7.1	10:30	7.0	4:18	4:48
18. Mon.	11:06	7.2	11:18	6.7	4:54	5:30
19. Tues.	11:54	7.2		.	5:36	6:24
20. Wed.	12:06	6.5	12:48	7.2	6:30	7:30
21. Thurs.	1:06	6.2	1:54	7.2	7:30	8:42
22. Fri.	2:06	6.1	3:06	7.2	8:42	9:54
23. Sat.	3:24	6.1	4:24	7.5	9:54	10:54
24. Sun.	4:42	6.4	5:36	7.9	11:00	11:54
25. Mon.	5:54	6.9	6:36	8.3	..	12:06
26. Tues.	6:48	7.5	7:24	8.6	12:48	1:00
27. Wed.	7:42	7.9	8:12	8.6	1:42	1:54
28. Thurs.	8:30	8.2	9:00	8.5	2:30	2:48
29. Fri.	9:18	8.3	9:42	8.1	3:12	3:36
30. Sat.	10:00	8.2	10:24	7.6	4:00	4:18
31. Sun.	10:48	7.9	11:06	7.1	4:42	5:06

SEPTEMBER 1969

Day	A.M.	HIGH WATER HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Mon.	11:36	7.6	11:54	6.6	5:24	5:54
2. Tues.	.		12:24	7.2	6:06	6:42
3. Wed.	12:36	6.1	1:12	6.9	7:00	7:42
4. Thurs.	1:30	5.7	2:06	6.7	7:54	8:42
5. Fri.	2:30	5.5	3:06	6.7	8:54	9:48
6. Sat.	3:36	5.5	4:06	6.7	9:48	10:36
7. Sun.	4:42	5.7	5:06	6.9	10:42	11:24
8. Mon.	5:36	6.0	5:54	7.2	11:36	
9. Tues.	6:18	6.4	6:36	7.5	12:12	12:18
10. Wed.	7:00	6.8	7:12	7.6	12:54	1:06
11. Thurs.	7:30	7.2	7:42	7.7	1:30	1:42
12. Fri.	8:06	7.4	8:18	7.7	2:06	2:24
13. Sat.	8:36	7 7	8:48	7.6	2:42	3:06
14. Sun.	9:12	7.8	9:24	7.4	3:12	3:42
15. Mon.	9:54	7.8	10:06	7.2	3:48	4:24
16. Tues.	10:42	7.8	10:54	6.9	4:30	5:12
17. Wed.	11:30	7.6	11:48	6.6	5:12	6:06
18. Thurs.			12:36	7.4	6:06	7:12
19. Fri.	12:48	6.3	1:42	7.3	7:18	8:30
20. Sat.	2:00	6.2	3:00	7.3	8:36	9:36
21. Sun.	3:18	6.4	4:18	7.5	9:48	10:42
22. Mon.	4:36	6.8	5:24	7.9	10:54	11:36
23. Tues.	5:42	7.4	6:18	8.2	11:54	.
24. Wed.	6:36	8.0	7:06	8.4	12:30	12:48
25. Thurs.	7:24	8.5	7:54	8.4	1:18	1:36
26. Fri.	8:12	8.7	8:36	8.2	2:00	2:24
27. Sat.	8:48	8.6	9:12	7.9	2:48	3:12
28. Sun.	9:30	8.4	9:54	7.4	3:24	3:54
29. Mon.	10:12	8.1	10:30	6.9	4:06	4:36
30. Tues.	10:54	7.7	11:12	6.5	4:48	5:18

To report violations or if you need assistance in the Coastal Area – Call – State Game & Fish Commission, Brunswick, Georgia, P. O. Box 1097, Phone 265-1552, Savannah 233-2383, Richmond Hill 756 3679

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Georgia Needs A Trout Stamp

For a deep South State, Georgia is fortunate to boast more than 700 miles of cold water mountain trout fishing in the southern end of the Applachian Mountain chain.

But unfortunately for the trout, there are an even larger number of dedicated anglers who would rather fish for this exciting species than eat, at least for a meal or two.

Exactly how many trout fishermen Georgia has is a matter of argument—it's at least 100,000, but the 1961 U. S. Census Bureau Survey of Hunting and Fishing in Georgia indicated that 381,681 fishermen try trout fishing at least once a year. That would be 546 fishermen per stream mile, which doesn't seem too far off on the opening day of trout season each spring.

But the significant thing about those figures is that the number of trout fishermen is increasing each year, because of the natural population increase, the 36-hour week, and more money burning a hole in those new fishermen's pockets. At the same time, Georgia's trout streams are being rapidly destroyed by dams that make the water too warm for trout; dredging that wipes out holes where fish feed and rest, along with overhanging vegetation that cools the water; and the construction of new roads that create silt suffocation conditions in trout gravel spawning beds.

Actually, fishing pressure on Georgia's trout streams long ago reached the point that the demand exceeded the supply. Since 1928, it has unfortunately been necessary for the State Game and Fish Commission to raise and stock thousands of trout each year in 159 streams to meet the demand of trout fishermen for continued good fishing, in spite of the onslaught of anglers. Today, the two trout hatcheries of the State Game and Fish Commission at Lake Burton and Summerville are raising every possible trout they can for stocking, along with most of the production of the federal trout hatchery at Rock Creek above Dahlonega, and surplus fish occasionally brought in from federal hatcheries outside Georgia.

But without construction of a third state trout hatchery or a second federal hatchery in North Georgia in the next few years, the existing facilities will be inadequate to raise enough trout to keep trout fishing tomorrow as good as it is today for a greater number of fishermen.

This is especially the case now that the discovery has been made that trout can be successfully stocked and grown to large sizes in many of Georgia's huge northern hydroelectric reservoirs, like Lake Lanier, Hartwell, Burton, and Blue Ridge. Another such reservoir that will probably be suitable for trout stocking is now being built by the Corps of Engineers near Ellijay on the Coosawattee River, Carters Dam.

In addition, about 25 streams in Northwest Georgia cold enough for trout were recently found by fish biologists.

Regardless of the number of trout that will be needed in the future, Georgia's program of stocking two trout per fisherman in most "open" trout streams and four fish per fisherman in $1.00 a day managed streams is already an expensive proposition. The entire program now for operating

Continued on page 16

ON THE COVER: One of Georgia's most secretive midnight maurauders, the bobcat. Also known as the wildcat, he may be a common visitor in your wooded backyard, along with the amazingly docile copperhead snake. Unless attacked, copperheads seldom make their presence known. This oil painting is the work of native Atlantan Tom Hill, who illustrates Ed Dodd's Mark Trail Sunday newspaper feature page.

ON THE BACK COVER: The old grist mill on South Chickamauga Creek in Catoosa County has been a landmark since Civil War days, when the old General train ran by within sight. Today, the mill is a favorite local fishing and swimming hole. Photo by Richard K. Wood, Graysville.

PHOTO CREDITS: Ted Borg 3; Jim Morrison 1, 2; Leonard Lee Rue III 4, 6v., 12b; Jim Tyler 10, 11, 12t; Dean Wohlgemuth 7, 8, 9.

A BONUS FOR DOVE HUNTERS

By Dean Wohlgemuth

Bigger bags are coming! Dove hunters last year could bring home a dozen doves from a day's shoot. But this year's dove limit will be increased by 50 per cent to 18 per day. The larger bag limit will be used to measure the effect of hunting pressure on dove populations.

■ That the dove has become the most popular game bird sought by hunters in the United States comes as no surprise to most outdoorsmen. They've driven miles, hidden for hours in any cover they could find, dodged crowds of hunters, burned up cases of ammunition, hit some doves, and missed many more.

They've cussed and cried over misses on "easy" chances, and gloated over good hits on hard shots. When it's all over, whether they limited out or got barely enough to heat the pot, the dove hunter is ready to go again when someone says they've got a good dove field staked out.

One down, and 17 to go this year for Georgia dove hunters! Dove shooters on Redbone Farms Hunting Preserve near Barnesville will get even more for their money this September, with the higher limit on doves this year. But chances are the limit will be lowered in a year or two.

Photo by Jim Morrison

With all that fervor over the little gray birds, it's no wonder that state conservation agencies and the U. S. Bureau of Sport Fisheries and Wildlife spend a good deal of time and effort studying them.

Each year, more is learned about doves and the effects of hunting pressure, but as often is the case in any scientific work, sometimes learning something simply means that you've discovered there is even more yet to be learned.

Since the dove is a migratory bird, findings in one state alone don't show much. Therefore, states in this part of the country got together to conduct studies, forming the Southeastern Dove Study Committee. States represented are included in the Eastern Dove Management Unit, and studies are made in cooperation with the Bureau of Sport Fisheries and Wildlife.

For several years, the Dove Study Committee has kept track of doves through such things as collecting wings from hunters and checking them for age of the doves, trapping and banding doves and releasing them, then checking the bands returned by hunters showing the date and location of the kill; counting the calls of doves during mating season to estimate breeding populations, and conducting a telephone survey to ask hunters about their success.

Now, the studies are going to go a step farther this year. In an effort to determine just how much of an effect hunting has on dove populations, several states—Georgia included—in the Southeastern Committee will raise their bag limits this year, in a cooperative effort authorized by the federal Bureau, to see how much—if any—dove populations will be affected as a result.

The bag limit increase this year will be 50 per cent, from 12 birds per day that was the limit last year, to 18 birds per day per hunter during this coming season. (The Georgia season this year will again be split, with the first half opening Sept. 6 through Oct. 4, and the second half from Dec. 6 to Jan. 15.)

Chances are, it will require two seasons to learn enough to make the study worthwhile, so it is possible that the bag limits for the 1970 season again will be more than 12 birds. It is also quite probable that for the 1971 season, the bag limit will be greatly reduced—may. e back to 12 birds per day, maybe less.

While these bag limit experiments are going on, biologists from the various states will continue counting calls, banding, studying wings and making telephone surveys to keep a finger on the pulse of dove populations.

While the dove hunter gets a bonus in his bag, at least for this year, he is cautioned to be aware that the limit most probably will be cut down again in the near future.

In order for the experiment to be a success, it will require cooperation on the part of all hunters to stay within the law, and to report on banded birds killed, and any other requests of the study committee.

The hunter stands to be the winner in all these studies. In all this research, biologists and game managers learn more and more about how to make the hunting better for everyone. It's all a part of the continuing job of learning the best way to put a wildlife resource to better use for everyone, putting to work the dollars the sportsman spends for a hunting license, as well as his guns and ammunition. The more a sportsman is willing to cooperate with this conservation agency, the more that can be done for him, to produce more and better hunting!

Game biologist Charles Marshall pours out a bag of dove wings onto a huge pile. The wings were collected from hunters all over the Southeast, to help biologists determine what age doves are most susceptible to the gun.

BENEFICIAL BOBCAT

By Marvin Tye

One of the most interesting wild creatures to be found in Georgia is the bobcat. It is a symbol of the wild that is disappearing in many sections of the country, but seems to be holding its own in the Peach State.

The bobcat or wildcat as it is sometimes called, gets its name from the short, stubby tail which averages four to six inches in length. The average size of one of these animals is about three feet in length and about two feet high at the shoulder. A large bobcat will weigh 20 pounds or more with exceptional specimens reaching the 40-pound mark. The fur is a yellowish-tan color with black spots over most of the body, including the legs. The underside, chin, inside of the ears and inside of the legs are white. The outside of the ears is black with a large white patch in the center.

Bobcats live for as long as fifteen years. They mate for the first time when they are about one year old. Kittens are born about 63 days after mating in a litter which may number from one to four. The kittens weigh about 12 ounces each, and may nurse for two months until completely weaned, then travel for the next few months with their mother to learn hunting and other things necessary to their survival.

The bobcat is most abundant in the river swamps of South Georgia and in the North Georgia mountains away from human habitation, although they are found in all 159 counties. They are shy, wary creatures and are rarely seen by man. Wildcats are found in lesser numbers in rural areas near farms and along the edges of some towns with nearby woodlands or swamps.

Many people have the idea that bobcats are harmful to wild game populations and should be killed for that reason. Dr. James H. Jenkins of the University of Georgia's School of Forest Resources says that the bobcat's main source of food, as far as number of animals consumed is concerned, is the cotton rat. The cottontail rabbit is the next most frequently dined upon species. Although he eats fewer rabbits than rats, the bobcat will consume more rabbit meat than rat meat in a given period because rabbits are larger than rats. He also eats some birds and other small animals. On rare occasions, a bobcat might attack and kill a sick or wounded deer, but it could hardly be classified as a menace to the deer herd. Wild dogs do far more damage each year.

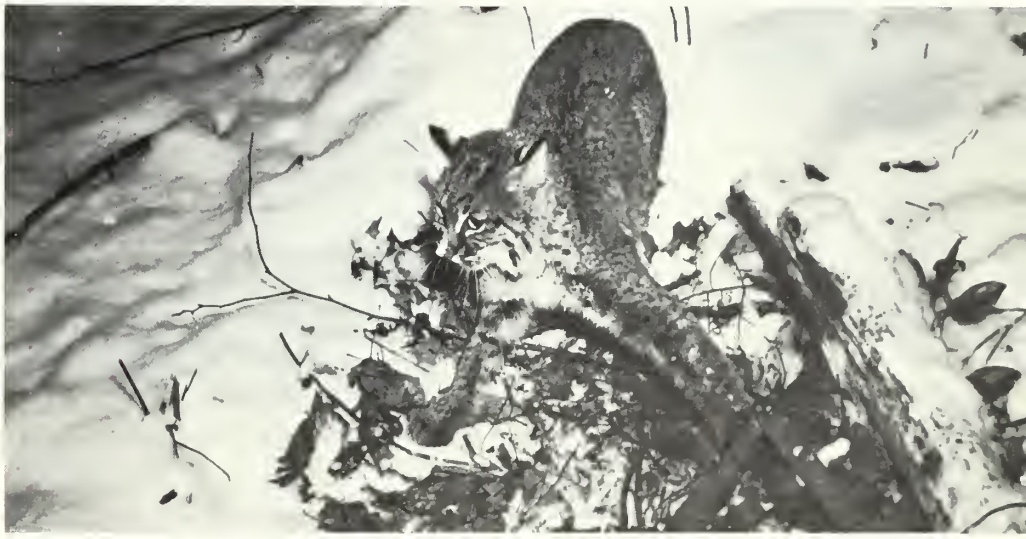
Usually when a bobcat eats a deer, it is one that has died of natural causes and been discovered by the foraging cat. Such carrion is also fed upon by foxes, opossums, and raccoons, yet they are never blamed for killing deer.

According to Dr. Jenkins, biologists in Alabama found that the best areas for turkey hunting in that state also contained a large number of bobcats. The bobcats apparently had no ill effects on the turkey population. Control of a game species such as rabbits by a predator like bobcats may be healthy. If a great surplus of rabbits results, they may overpopulate an area and be subject to disease and vast reductions in their numbers.

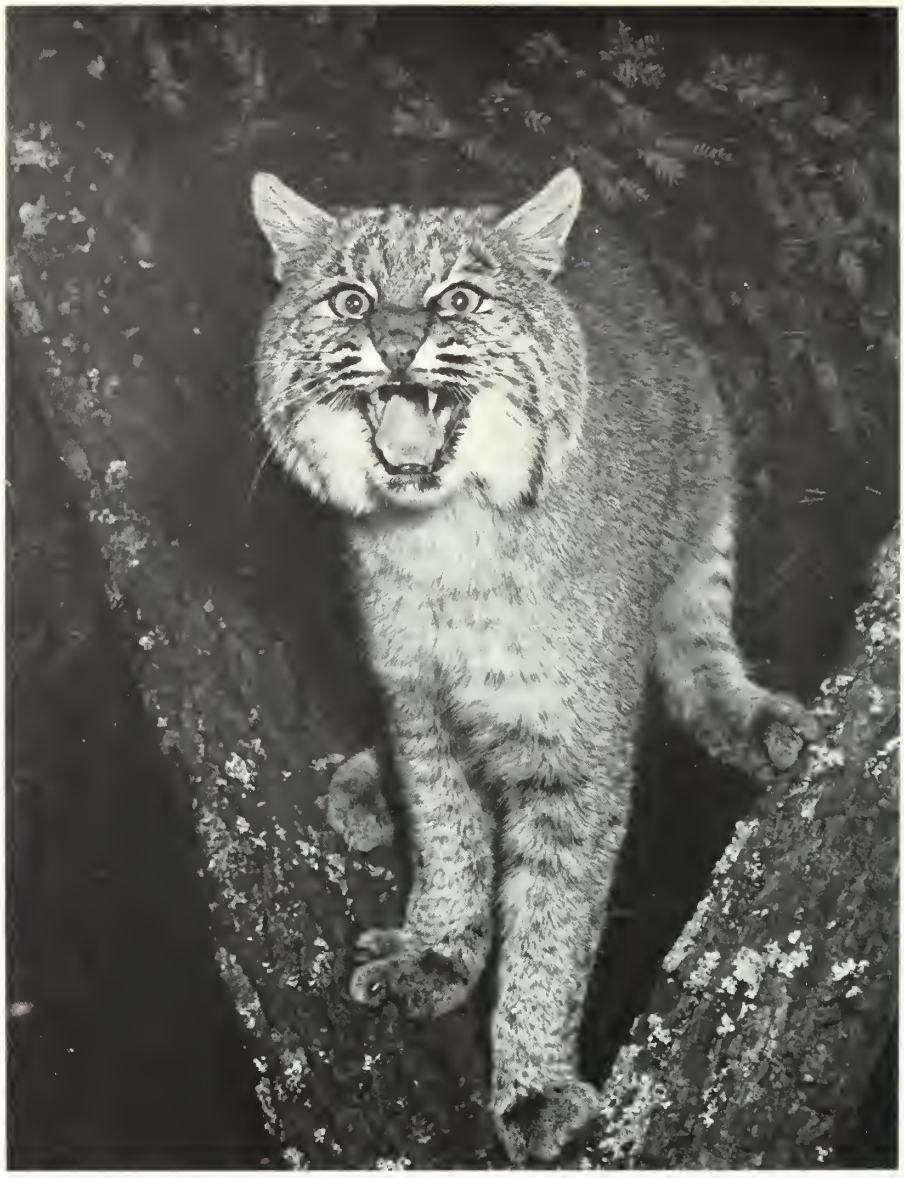
To the hunter with dogs, the bobcat is a worthy quarry that can lead the dogs on a merry chase before treeing or coming to bay. The cats are savage fighters, and are more than a match for any dog that would try to tackle one of them without the aid of a pack.

Predator callers can also have fine sport with the bobcat. Cats will come to the dying rabbit call that is so effective in luring foxes. The bobcat, however,

Excessive trapping and other control measures have almost eliminated the bobcat in many sections of the country. In Georgia the wily predator still can be found in some parts of each county. Bobcats are useful in controlling cotton rats and other small rodents, while helping to prevent an overpopulation of rabbits and the outbreak of diseases.



Bobcats are an interesting target for the hunter. They will often lead a pack of dogs on a difficult chase before taking refuge in a tree or baying on the ground where they will put up a ferocious fight. Varmint callers can also lure bobcats into range of their weapons with a dying rabbit call.



This tranquilized bobcat was equipped with an early model portable radio for tracking purposes, but it was found to be too bulky and was never really used. Game and Fish Commission biologist Dan Marshall and Dr. James Jenkins of the University of Georgia used similar devices in their studies of the range of bobcats. Radios in use today are about the size of a quarter in diameter.

comes in much more slowly and cautiously than the fox. If he spots the hunter, the bobcat will often slink back into the woods and the hunter will not even know that he came near. Bowhunters find the sport of calling bobcats especially challenging—both because of the cat's wariness and because of the small target that he offers to the archer.

These methods of hunting, while not illegal, are not overly encouraged by the Game and Fish Commission because a few outlaws kill deer illegally at night while claiming they are predator calling or hunting cats with dogs.

In addition to being a beautiful animal, an effective predator, and a fine quarry for the hunter, the bobcat is serving another purpose. Dr. Jenkins and his associates at the University of Georgia have been studying the effects of low levels of radiation on small animals and predators that feed on them. It was found that cotton rats could take about twice as much radiation as man, with the bobcat being more sensitive to radiation than man. Cotton rats and rabbits absorb radiation from fallout caused by nuclear testing. Because the bobcat is almost totally carnivorous, he concentrates radiation at a rapid rate by feeding upon these animals. Dr. Jenkins reports that nine days after the Red Chinese atomic tests in 1966, rabbits in Georgia were found to have strange isotopes in their bodies. It was evident from this that fallout from these tests had reached Georgia in less than ten days

Excessive radiation in bobcats seems to affect the animal's coordination, and could possibly lead to death in some cases. Bobcats usually have three to four times higher amounts of radioactive accumulation in them than the animals they feed upon.

Cats may range over an area of two to three square miles. They may travel over larger territories in areas where food is not overly abundant or concentrated in one specific location. Radio tracking conducted several years ago by Dan Marshall, now a wildlife biologist for the Georgia Game and Fish Commission, and Dr. Jenkins showed that where food such as cotton rats and rabbits is abundant, the usual home range of bobcats is only 300 acres. Tracking principles used in these bobcat range studies have been applied by Marshall to the study of deer and other game animals.

Bobcats have been completely wiped out in many midwestern states. Because residents of these areas feared the bobcat as a predator of their chickens, these people have used poison, traps, and bounties to eliminate them. Heavy hunting pressure with dogs can help to wipe out a bobcat population in a hurry.

Fortunately, sufficient amounts of wild land are still found in Georgia today to support bobcats and many other species of wildlife. These exist without causing any excessive damage to the other. It would indeed be a shame if this colorful animal were completely eliminated.

Planted 12 inches deep into the stream bed of Walnut Fork Creek on the Warwoman Management Area and filled with gravel, this box (left) makes an ideal place for trout to spawn . . . if silt can be kept from settling on the eggs. So, upstream from the box, and on a clear branch, a small reservoir (right) was built to pipe water to the spawning box. The pipe biological aide Carlton Nichols is pointing to comes out underneath the box, bubbling clean water through the gravel, and washing the box free of silt.

Maternity Wards for Trout?

By Dean Wohlgemuth

■ The franchise for building trout streams may be the sole property of The Almighty, but there's no law in the Good Book, or any other, that says man may not improve on one . . . if he can.

Trying to accomplish such a feat, however, is bound to get some icy stares and haughty snorts from some trout fishermen. It's hard to blame them, too, for much of what mankind has done to trout streams, in altering them, has been something less than beneficial.

Concede, however, that such previous efforts were not geared toward improving of the stream, trout-wise. And likewise concede that the current studies by the Game and Fish Commission on a pair of brooks in Northeast Georgia, were begun after thoughtful planning with an eye toward giving the old trout homestead a facelifting that would make it more livable.

Now, the trout is a fairly particular critter when it comes to selecting a home. He needs a good, cool, clean, comfortable place to hide, and a pretty fair supermarket to furnish his groceries. On top of that, if he is to become abundant in numbers, he has to have a suitable maternity ward.

Fishing pressure from the angling clan keeps his numbers down, to be sure, but this is largely because of a lack of enough water and food to support a good population in the first place. Consequently, in order to have enough trout to go around for all fishermen, the Commission finds it a necessity to do a great deal of stocking. Something like 85 per cent of these stocked trout find their way to a creel within a short span of time.

This suits many a fisherman just fine, but there are still a few of a fading breed of angler that would like to believe there's at least some chance of putting a natural-born, stream-reared "native" trout in his split bamboo creel.

Now that's something that requires a good deal of doing by the best minds in the fish managing business.

First off, in streams like Walnut Fork and Hoods Creek in Warwoman management area, where these studies are going on, there's a little matter of not quite enough water in one place to hold a bunch of trout. There's water there, sure, but all too often it's too swift and shallow.

A dam? Oh! You said a bad word! You don't dam trout streams. You want *running* water, a stream! But instead of just a straight, swift, shallow current, you want an occasional small pool.

How do you get one? Well, this problem wasn't too hard to overcome, and has been done to quite an extent in Georgia and quite a lot of other states. You take a nice, big log and lay it across the stream. You cut a notch a

Photos by the author

Top: Now here's a good place (left) to find a trout . . . either in the pool on the upstream side of the splash dam, or in the riffle below. At right, a log has been cut and is ready to make another splash dam, as soon as it's set deep enough into the stream bed to make the water back up behind it, flowing over it through the notch.

Below: What's behind the big door (left)? Th "sidewinder," which keeps most of the water in the stream, but allows a small flow (right) to go th a man made cut across a bend in Hoods Creek, so sr trout can spawn, unmolested by bigger fish. No spawning box just behind the

Wide, shallow stretches of Hoods Creek narrowed, and thus deepened by such ds as "double wing deflectors" (left), of logs, or "single wing deflectors", made by placing logs or loose boulders stream. Dams of small rocks which wimming fish but let water through wor

Heavy rains bring high water in the tiny branches that feed trout streams, and the water flows over the road when the culvert is full, causing erosion (top) on Hoods Creek. To keep the silt from getting into Hoods Creek, wire silt trap (above) will trap leaves and strain the silt from the water before it reaches the main stream.

couple inches deep on the top side, maybe half or two thirds as long as the stream is wide. Through this notch flows running water, same as always, but the water is a bit deeper upstream from the log and the riffle created as the water splashes over, etches out a smaller but perhaps even better pool, a jimdandy abode for a homeless trout. All he has to do is sit in his dining room and wait for a meal to splash over the log.

There are other ways of producing similar results. This first method is known to biological aide Carlton Nichols and his sidekick Jeff Houck, who did the work, along with biologist Rich Fatora who heads up the project, as a "splash dam."

The next method looks very similar, but it earned the monicker "digger." This log isn't notched at all, and the water doesn't go over it . . . it digs its way underneath the log. Result: virtually the same.

Now, let's try a "double wing deflector" in another spot. Here, the water's a little spread out and shallow. If we could concentrate it into the middle of the stream, it might work just fine. So, we build a couple of wall-like structures of logs from both edges of the stream, in a sort of a V shape right down the middle of the stream.

Voila! The water is concentrated into the middle, and it's deeper. Not only that, the water swirls back up behind the walls. More trout habitat, just like nature builds swirls with boulders, fallen logs, and so on.

Okay, now we have plenty of habitat. What else do we need? Well, it would help to have some trout. Sure, there are some here, but not enough to go around. Stock them? Wait a minute, you forget we said we're trying to produce native trout.

Well, then, we'll just have to build that maternity ward. Only the boys at Warwoman use more business-like language. They like to call them "spawning boxes."

You take four boards, about an inch thick and 12 inches wide. Two of them are around three feet long, the others twice that length. Nail them together and you have a rectangle, which is almost completely buried in the bottom of a swift, shallow run. Then, fill it up with small rocks, pebbles, gravel . . . the kind of stuff that makes a nice(?) bed for mama trout, a wonderful place to raise a family.

There's only one thing wrong with this, and that is the silt that comes down the stream from soil erosion and coats the gravel, smothering the eggs.

Well, then we'll have to find a way to wash the silt out. There's a tiny branch entering the stream just above the spawning box, so we'll build a tiny dam . . . oops! reservoir (sorry 'bout that) on the branch, and run a one-inch pipe underground, and to the bottom of the spawning box. That provides a small flow up through the gravel, washing away that silt.

Will it work? Well, as Nichols and Houck pointed out, three of six such boxes on Walnut Fork and Hoods creeks definitely produced a hatch of trout this winter, and the other three showed signs of being used.

We mentioned silt. Here's a real bane to trout streams. Got to do something about that, too. So we'll put up another obstruction across these branches that carry a lot of silt during high water periods. The water seeps underneath the obstruction, through a heavy wire which catches a mess of leaves, which filters the silt out. Success again! Hey, we're making progress! This works especially well where tiny branches flow over a road at high water, washing away some of the road and muddying the water for quite some time.

Things are looking up at this point, but things have gone our way so well, why should we stop now? After all, there are a lot of young, small trout that are harrassed by their big brothers when they pick one of the prime spawning spots.

So let's find a way to put in a spawning box where the water is a little too shallow for the bigger boys (and girls), but just right for the newly-weds.

Here's a bend in the creek that has a nice, deep pool and plenty of water. Suppose we cut the corner a bit, making a small branch of our own taking water from upstream of the bend, then returning it back to the main stream just below the bend.

Not too much water now, so we'll put in a "sidewinder," a structure that keeps most of the water going down the main channel, but, through a small opening in the bottom, allows a small portion to flow through our man-made branch. And in that branch, we'll put one of those spawning boxes.

And after the babies hatch, and mama and papa return to the bigger stream, the youngsters will have a nice playground where big trout can't get in to eat up the family. When the young ones get too big for the shallow water, they will be big enough to take care of themselves in the bigger world of the main creek.

We've done it all, now, except provide more food. The difficult we did promptly, but the impossible may take us awhile.

We've got ideas, though. We're considering rigging an apparatus upstream that would trickle fertilizer into the water and flow down, gradually fertilizing the whole stream and thus increasing the food supply.

If this works, we should have accomplished everything we set out to do.

Boy, doesn't all this sound fine? Sure does, and we really believe it will work. But just to be on the safe side, we're not making any promises for a couple of years, to see how things go.

Maybe you and I can go up there about 1971 and catch a nice string of natives . . . huh?

Don't be a Snakebite Victim

By Marvin Tye

The dove hunter or the fisherman who ventures afield during early September is likely to encounter a species of wildlife that he would rather not even see at all—snakes.

These widely feared and basically misunderstood creatures are usually abundant during this period of the year, and can be found in heavy brush along the edges of open fields and along the banks of lakes and streams.

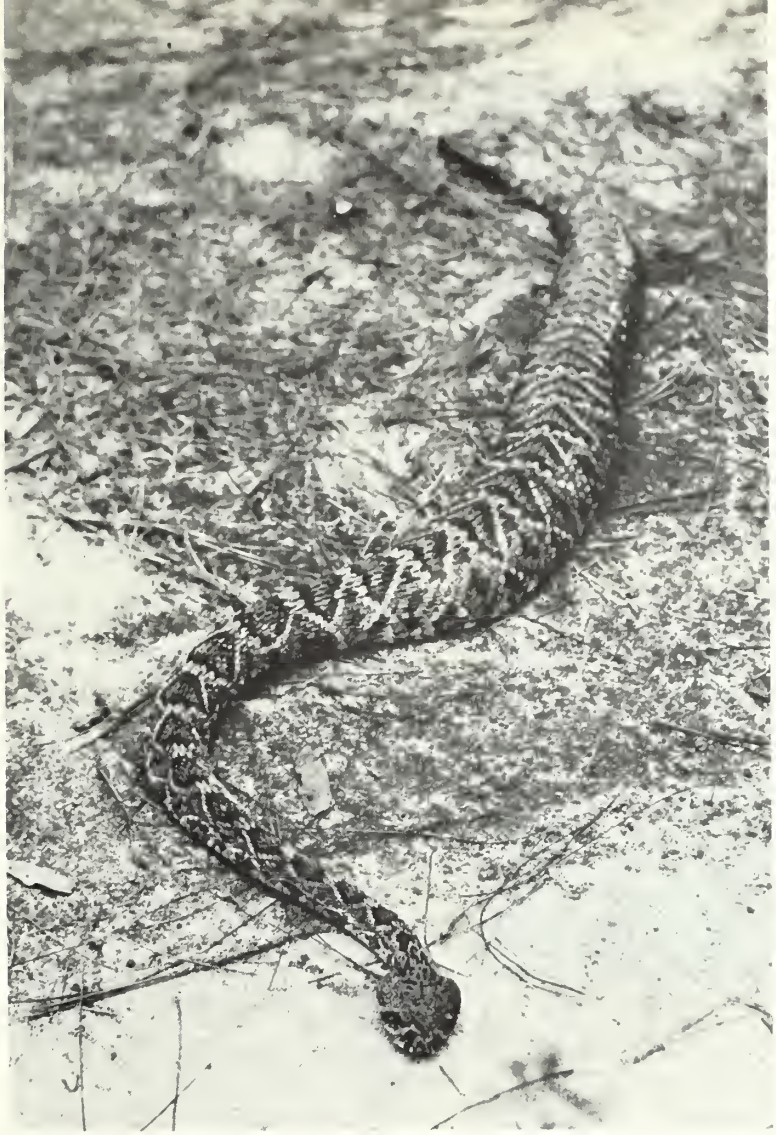
Many outdoorsmen will immediately kill any snake within sight. Actually, these men are sometimes doing themselves a disservice by destroying one of the most effective controllers of rats and other pests. Only a small number of snakes found in the wild are actually dangerous to man. These can usually be avoided by the cautious sportsman.

The deadly snakes native to Georgia are the rattlesnake, copperhead, cottonmouth or water moccasin, and the coral snake. Species of rattlesnakes found in Georgia are the eastern diamond back, the timber rattler, the pigmy rattler, and the canebrake rattler.

The diamondback is the largest, and one of the most dangerous of the rattlesnakes. It ranks among the world's deadliest snakes. Average size of adults is 33 inches to six feet in length. The largest on record measured eight feet in length and weighed 23 pounds. The body of this snake is dark olive, olive brown or almost black, marked with a chain of symmetrical, pale-edged, blackish diamond-shaped markings with light centers. This coloration blends with the lights and shadows of the debris on the ground in the South Georgia regions of scrub palmetto, low brush and dry pine woods where it is frequently found, often close to water. It will swim through salt-water to offshore islands such as Blackbeard and Sapelo off the Georgia coast. It is most frequently encountered by man where farmland is scattered among strips of woodland.

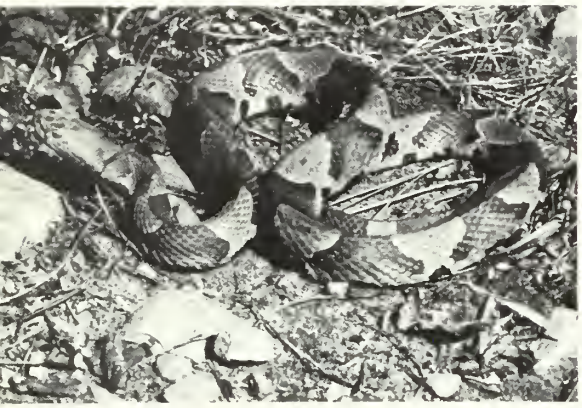
In the wooded mountainous regions of North Georgia, the timber rattler can be found in second growth timber where small rodents are plentiful. Average length is three to four feet, although the largest specimen on record measured six feet and two inches. Sometimes it is found around farmland, especially when crops are being harvested. Its color is usually yellow, brown or gray with chevron-shaped cross bands of black or dark brown. Some specimens may be entirely black, but this color phase is more common in the northeastern states than in Georgia. The canebrake rattlesnake, a very similar species, replaces the timber rattler along the coastal plains.

The pygmy rattler usually measures 15 to 22 inches, with a record of 31 inches. It thrives in the vicinity of lakes, river flood plains, swamps and



ABOVE: The diamondback rattlesnake of South Georgia is one of the largest and deadliest snakes in the United States. The arrow-head shaped head of this snake, wider than the rest of the body, is a common characteristic of the pit viper family to which all venomous snakes in Georgia except the coral snake belong.

LEFT: Poisonous snakes like rattlers use hollow fangs to inject venom into their victims. Non poisonous snakes have shorter teeth and no fangs in their mouth. Prompt first aid and medical treatment can save the life of a snakebit victim and often prevent serious complications.



TOP: Wildlife Ranger Arthur Abernathy captures rattlesnakes for wildlife exhibits throughout the state. Extreme care should be taken by anyone handling snakes. The sportsman can avoid snakebite by keeping his hands out of hollow logs, by staying out of thick brush, and being very careful where he steps.

ABOVE: The copperhead is often found around human habitation, sometimes within city limits. It is responsible for a large number of snakebites, as many as 170 in Georgia in one year. None of these were fatal.

marshes. It is usually slate-colored or grayish brown with widely separated, rounded black blotches along the middle of the back with smaller markings on the side and a reddish band between the markings on the back.

All rattlesnakes as well as copperheads and cottonmouths are pit vipers and can be distinguished from other types of snakes by several characteristics. Each has a depression or pit between the eye and the nostril and the heads of these snakes are broader than the body and usually appear when viewed from above to be shaped roughly like the point of an arrow. The pupils of the eyes of the pit vipers are elongated with a cat's eye type pupil, while other snakes have round pupils. The pit vipers have a single row of segmented plates below the anal opening. Other snakes have a double row of divided plates below the anal opening.

A copperhead can be identified by the red, copper-colored head from which it gets its name, and the reddish-brown hourglass markings on the sides of its body. It is rarely more than three feet long. Its tail ends in a point like the rattler, but, of course, has no rattles. They may be found in mountains, wooded hillsides, rock piles, rock quarries, sawdust piles and in lowlands or near streams all over Georgia. Copperheads may be found within city limits. A large number of people are bitten by this snake each year. In 1959, 2,920 people were bitten in the United States by copperheads, with 170 of these in Georgia. None of those cases in Georgia were fatal.

The largest cottonmouth on record measured six feet and two inches in length. This South Georgia snake's body is usually brown or olive-colored with darker blotches on the back and sides. Larger specimens may be nearly black with little trace of markings.

The name cottonmouth is taken from the white mouth which is revealed when the snakes strike or threaten to strike. Curiously, they are not generally found above the fall line north of Augusta, Macon, or Columbus, except on streams that flow into Alabama, such as the Coosa River.

The coral snake, the only poisonous species in Georgia which is not a pit viper, can be identified by its coloration. This small snake has broad rings of scarlet and black separated by narrow rings of yellow. To distinguish the coral snake from other similarly-colored non-poisonous snakes, you might remember the old saying, "Red touch black, good for Jack. Red touch yellow, kill a fellow." It is only found in South Georgia.

Just how likely is the average sportsman to be bitten? If he is cautious, he probably has little to worry about. Statistics from the State Health Department show that 65 people died of snakebite in Georgia during the 31-year period from 1938 through 1968. That's an average of less than three per year. There were no reported deaths in 1967 or 1949. Seven people were killed by snakes in 1940, an unusually bad year. Thirty-one of the fatalities were caused by rattlesnakes, while 32 were attributed to unidentified species. Less than one person in 10 million dies from snakebite in the United States each year.

There were an estimated 530 poisonous snakebites in Georgia in 1959. Only three of the victims died. Though potentially fatal, poisonous snakebites rarely are, for several reasons. Many of the snakes which bite people are small, and inject only a small amount of venom into their victim. Even a very large snake can strike and fail to inject any venom or can inject only a small amount. Heavy clothing or shoes may prevent full penetration of the fangs into human flesh.

Prompt first aid treatment and medical care are important factors in keeping the mortality rate low. Billy Newsome, Southeastern Regional Director of Safety Programs for the Red Cross, recommends the following first aid procedure:

Keep the victim still. Elevate the wounded part of the body. Apply a constricting band between the bite and the heart, if the bite is on the arm or leg. Use a sterilized instrument to make single one-quarter inch long cross cuts on each fang mark, being careful not to cut deeply enough to injure nerves, veins and arteries. *Don't make cross cuts on the same fang mark.*

Suction, preferably with suction cups provided in first aid kits, should be administered for an hour or more or until the blood returns to its normal color and loses the oily look that indicates its contains poison. The victim should be rushed to the hospital as soon as possible, with suction being applied on the way. Never give alcoholic beverages, stimulants, or antihistamines to a snakebite victim.

Prompt treatment can usually prevent serious effects from snakebite. Gangrene, amputation of injured limbs, and even death can result if treatment is not administered promptly.

What can you do to prevent being bitten? Stay out of thick brush whenever possible. Step on a fallen log or similar object before stepping over it. Look before you put your foot down. Don't reach into hollow logs, gopher holes or other places that might hold snakes.

Coral snakes are relatively rare. Their mouths and fangs are small, so they cannot bite as easily as rattlesnakes, cottonmouths, or copperheads. The coral snake must grab its victim and literally chew its way into his flesh. A finger or bare toe is a prime target for this snake. Coral snake bites have been reported as far north as Hawkinsville, although these snakes are usually found only in the southern part of the state. If you don't go barefoot and don't pick these snakes up, chances are you won't be bitten by one of them.

Use common sense when you go afield. Wear protective clothing such as leather boots and leggings if you plan to hunt in areas where there are heavy populations of poisonous snakes. If you're careful, poisonous snakes shouldn't be too much of a problem.

the outdoor world

Hickel Turns Down Georgia-Pacific Refuge Timber Deal

Interior Secretary Walter J. Hickel has written the Georgia-Pacific Corporation that he will not authorize any special privileges for the company to lease or exchange timber lands in Piedmont National Wildlife Refuge.

In his letter to G-P vice president H. S. Mersereau, Hickel said "after reviewing the timber harvesting management practices of Piedmont . . . we have concluded that the interests of the United States and the local economy . . . are best served by the current system of competitive bidding for timber harvesting rights on the refuge."

Efforts of Georgia-Pacific to obtain an exclusive timber lease on the refuge or to exchange lands in it for company lands to be included in the new California Redwoods National Park aroused a storm of opposition from Georgia conservationists, including the Georgia Sportsmen's Federation, the Georgia Conservancy, and State Game and Fish Commission Director George T. Bagby.

Piedmont National has the largest stand of hardwood timber not located in a river swamp in middle Georgia. Timber harvesting there is limited to the cutting of surplus timber only, except when wildlife habitat would be improved by careful cutting of marked timber.

The refuge is regarded as the most productive deer hunting area in Georgia because of its extensive hardwoods, and is the only area in Middle Georgia where wild turkeys are relatively abundant. Thousands of Georgians hunt on the refuge each year, especially from the Atlanta and Macon areas.

—Jim Morrison

WATCH "GEORGIA OUTDOORS" WITH J. HALL, SUNDAYS ON CHANNEL 11, WQXI-TELEVISION, ATLANTA.

Sportsmen Speak...

Editor's Note: The July issue of Game and Fish Magazine on channelization and its effects resulted in the greatest outpouring of letters ever received by the publication. Only a sampling of letters complimenting the Game and Fish Commission stand can be printed here. Curiously, there were no unfavorable letters received by the editor by the time this month's magazine went to press.

CHANNELIZATION

NOTED ECOLOGIST CRITICIZES CHANNELIZATION

I want to compliment you on the July issue of Georgia **Game and Fish** which deals with the channelization controversy. I think it is very important that all of us as citizens question all of the large engineering projects that are proposed by our powerful government organizations such as the Corps of Engineers. As a citizen, as well as an ecologist, I feel that these federal organizations should be subjected to "citizens review and control" just as much as the military.

In the case of channelization, the Soil Conservation Service violates its own research findings which show that more erosion can occur in a few days after vegetation is removed and soil laid here than would occur naturally in many years.

I would like very much to use a couple of the pictures in your July issue in my revised edition of my textbook, **Fundamentals of Ecology.** I would particularly like to have a 4 x 7 or 8 x 10 glossy print of the picture at the top of page 3 and also the picture at the top of page 5. These two, I believe, would contrast the before and after situation. I might also use the picture at the lefthand top of page 4 if an enlargement has sufficient clarity for reproduction.

Eugene P. Odum
Director
Institute of Ecology
University of Georgia
Athens, Georgia

Dr. Odum regarded in scientific circles as one of the most distinguished ecologists in the world. His text book is widely used in college classes. In addition to his duties at the University, Dr. Odum frequently serves as a consultant to governmental agencies, including the Atomic Energy Commission. Copies of the photographs are available on request to any interested publication.

Please allow me to congratulate you and your staff on the bold, gutty presentation of the July issue of Georgia **Game and Fish** on the U.S. Soil Conservation Service's stupid, costly and injurious practices on the nation's small watersheds.

Director George Bagby, Commission Chairman James Darby and the rest of the Commission deserve the admiration and praise of the public-at-large for daring to speak out so strongly on what has become a national crisis. It has been ignored all too long by all of us.

But, we must not let this effort on your parts and the past efforts of others stand as salves to our conservation-minded consciences. We must, and I know we shall, continue the battle at all levels until our state and federal representatives at last see the light.

Then, perhaps, will they unite to forever erase this blot on the future of our country.

Bill Baab
Outdoor Edtor
Augusta Chronicle

I am very much impressed with your July, 1969 issue of Georgia **Game and Fish** Magazine, which reviews the damaging features of the 566 program, and the effects of channeling in Corps and S.C.S. projects. This is a matter with which all of us are concerned, and you have done an outstanding job in presenting some of the facts and results of projects of this type.

If possible, I would like to obtain 25 copies of your July issue. I would like to send copies to the members of the Southeastern Water Use Committee, and also place a few copies in Arkansas. There is an insufficient public awareness of the damages resulting from many water developments, and I hope that your article is widely distributed.

In keeping with the objectives of your July publication, I thought you might be interested in the report, **Stream Preservation in Arkansas,** which I prepared for the State Planning Commission. I am mailing you two copies of this report, under separate cover, for your information.

Keep up the good work.

Harold E. Alexander
Resource-Recreation Specialist
Arkansas Planning Commission
Little Rock, Arkansas

While they last, extra copies of the July issue will be mailed to any person requesting them, free of charge.

Congratulations on carrying such a forthright article as "Our Ruined Rivers" by George Bagby.

I have, from time to time, written expressing concern over some of the actions of the Soil Conservation Service. It is my belief that this organization needs to be checked to keep their activities in line with sound, broad conservation objectives.

I passed copies of your magazine to some Ohio outdoor writers who plan to do a story on this topic.

Keep up the good work.

Sincererly,
Merrill Gilfillan
Administrative Services
Dept. of Natural Resources
Columbus, Ohio

The Athens Chapter of the Georgia Conservancy has adopted the Sandy Creek Swamp, Clark County as one of its projects. We would like to see this beautiful natural area protected and used for recreational and educational purposes.

We applaud your stand against the channelization practices of the SCS and in particular your recent issue of the Georgia **Game and Fish** (IV:7).

As Sandy Creek is threatened by this SCS program, we feel that distribution of your magazine to local land owners and politicians would be helpful. Could you spare about twenty extra copies? Thank you for your consideration of this matter.

Sincerely,
Richard S. Murlless
Chairman, Sandy Creek Project
Department of Zoology
University of Georgia
Athens, Georgia

Certainly want to congratulate you on the fine job you did concerning the SCS stream channelization program. Is there any possibility of obtaining a few extra copies of the magazine for that month?

When you come through Tennessee, be sure and stop to see us.

Sincerely,
Michael R. Pelton
Knoxville, Tennessee

A friend showed me your July issue of the Georgia **Game and Fish** magazine with its coverage of resource vandalism by the SCS. This is the most courageous indictment I have yet seen of this bureaucratic monster.

We have had similar grief in Tennessee. In fact, the illustration you used in Beaver Dam Creek, Johnson City, Tennessee, brought painful memories. This project channelized the only cranberry bogs in the state and tore the heart out of the beautiful 2800 foot Shady Valley, highest in Tennessee. I personally went to Washington and hounded them about this project. I visited a phalanx of Soil Conservation officials in the Agriculture Department who passed the buck without even comprehending what or why they were destroying, and so I was unable to stop them.

Enclosed is $2 for subscription to your fine journal. Could I possibly get six (6) copies of this July issue, Vol. 4, No. 7, 1969?

Keep up the good work.

Mark S. Prichard
Parks Naturalist
Tennessee Dept. of Conservation
Nashville, Tennessee

At the moment, the two hot spots in this PL-566 fight seem to be North Dakota and Georgia. They are a long ways apart, but seem to share the same ailment—the SCS.

John B. Madson,
Assistant Director
of Conservation
Winchester-Western
East Alton, Illinois

I just received your July issue of Georgia **Game and Fish.**

Congratulations.

You've got a lot of guts.

Charles Dickey
Director, National Shooting
Sports Foundation, Inc.
Riverside, Connecticut

Very pleased with your July issue, particularly the cover photograph.

Could you send me an extra 10 or 15 copies for distribution to associates? Thank you.

Tom Jackson
Wildlife Education
Representative
North Carolina Wildlife
Resources Commission
Raleigh, North Carolina

I had the good luck to pick up Vol. 4, No. 7 (July) last weekend while in Stephen Foster park to canoe the Okefenokee. Congratulations for an **outstanding** magazine. Both outside covers horrify me. You make your point well.

Ken Watson
Gainesville, Florida

'Bout time some of Game and Fish folks gave channelization all it deserves. All the biologists here, especially the fishery boys, are really circulating the magazine. We are just now beginning to fight them in NE Kansas.

We got a new director, our former chief of fisheries, and he is most enthused over the July issue. If possible, he'd like 50 extra copies and let me know if there's a charge. We'd also like to borrow, beg, or steal, if possible, the separations on the front cover of the sterile ditch.

Jay Kaffka
Assistant Chief, Information
and Education
Arkansas Game and Fish
Commission
Little Rock, Arkansas

I read your article "Our Ruined Rivers" in the July edition of Georgia **Game and Fish.**

I was very interested in your report of Soil Conservation Service activities in Georgia. Your article has implications within Maryland due to the 556 program in this state.

I would like to have two copies of the July edition of Georgia **Game and Fish** for future reference and use within the Department. Thank you.

Jay O'Dell
Biologist
Maryland Department of
Chesapeake Bay Affairs

ALCOVY LANDOWNER

I would like to take this opportunity to give my full support to the articles written by your magazine in opposition to the channeling of the Alcovy River Swamp. The Flat Creek area in connection with the projects happens to be within a mile distance of my farm. We have been led to believe that from this project my neighbors and I will benefit but I have firsthand knowledge that this is not the case.

Three years ago while attending college, I had a chance to work for the S.C.S. During the summer I was involved in work of various kinds in Gwinnett County. The channeling of creeks in that area began to arouse my doubts of the true nature of the purpose of an institution supposedly protecting soil and water. It was here that I saw and took part in destroying wildlife of various kinds by destroying their home. What was once swamp filled with duck, snipe, fish, etc. is now just another ditch which muddy water ran down.

Now in my own county this stupid, ignorant government project is at work again this time not just a creek but in my opinion the Okefenokee of North and Middle Georgia.

Deer, ducks, fish . . . you name it it's there; abounding Why? Because this is protection from man. This is the way God made it and this may be the last chance for the people here to realize that there is more to life than making money.

It becomes crystal clear that this project will help only a few while the future generation will not have the pleasure to do as I do now; shoot ducks and hunt deer in an area that should be protected by whatever it takes to keep it as is.

As an employee of the city, as a landholder in the area, I am suppose to benefit but will this be worth it? I am all for the lakes but why drain the swamp? They didn't drain all the swamps in all the areas I know this for a fact.

By writing this letter I am going to be criticized but I couldn't sleep knowing that no longer would the deer run across my lands, no ducks dive in the many natural lakes and more important no generation later could see it like it is.

Has it come to the time when man will sell out to anyone simply because he thinks he can make an extra dollar or two? In my heart I think not. In a time when the air is polluted, streams turned into sewers, one wonders if man is not really destroying what may well be the only thing he has left from the beginning of time—his environment. Excuse the length of this but please if it is possible to print this in your magazine in (some of its true meaning) so maybe people can see it like it is.

William R. Allen Jr.
115 Felkes Street
Monroe, Georgia 30655

Mr. Allen's letter is one of the most moving appeals for the right of wildlife to share the face of the globe with man that we have ever read.

LAKE JACKSON RESIDENT

I wish to express my views on the proposed ruining of the Alcovy River above Lake Jackson and also the ruin of fishing in the lake for seven years if this so-called **Flood Control** is allowed to be carried out as planned.

The sportsmen and all others who love the outdoors seem to be on the losing end of this project.

Being 62 years of age myself, I don't have many more years left to enjoy what's left of our beautiful rivers after the SCS gets through messing them up. As my part, I have written Robert G. Stephens, Jr. and Herman E. Talmadge.

As I live here on the lake, I am very much concerned about this. Not only will fishing be cut back, but property values will decrease as well. This would truly put things in the **red.**

I fail to see where cutting of the trees on both banks of a stream, and dredging out the middle would control any flood water. If the Alcovy River is dug out in this way, the flood will be poured into Lake Jackson —a flood of mud and dead fish.

I'm not against the building of dams and lakes to create more places for people to enjoy and for holding back much needed water supplies, but why do they have to ruin our rivers **below** the dams?

Do they have to drain swamps and destroy our woods and wildlife?

Why does the farmer need more land when he can't plant what he's got, unless he is told to do so by the government?

Governor Maddox says he wants to help the **Little People.** Now is the time for him to get at it.

Sincerely,
L. J. Winburn
Monticello, Georgia

Under existing Georgia law, approval of SCS Watershed Projects on the state level is left up to the State Soil Conservation Committee, instead of the Governor. The Committee is composed of five supervisors of soil and water conservation districts appointed by the Governor in the middle of his term for consecutive four-year terms that end in the middle of the next Governor's term.

P. L. 566 AMENDMENTS

Congratulations on your issue No. 7, Volume 4, of Georgia Game & Fish magazine for July, 1969. May we offer our sincere congratulations on your factual story and excellent pictures showing the effect on wildlife of the "development" of our natural resources.

We hope you produced many extra copies of this particular issue. It should receive the widest possible distribution throughout the Southeast, in Washington, and probably throughout the remainder of our country. If they are available, we need a dozen copies of this issue, and could profitably use twice that many if you can spare them.

The only hope we have of preserving some of our streams from the "benefits" of "agricultural development" is to have Public Law 566 (and similar laws) extensively

amended. It will be done only when great numbers of the American people demand it. Is it the responsibility of the Southeastern to prepare acceptable amendments?

J. H. Cornell, Chief
Division of Inland Fisheries
N. C. Wildlife Resources Com.
Raleigh, N. C.

ALABAMA BIOLOGIST

I have just received a copy of Volume IV, No. VII of your Georgia Game and Fish magazine. I would like to commend you and your organization for the contents of this magazine and I certainly feel that publicity such as this is badly needed to prevent further exploitation of this great resource in the United States.

Walter M. Tatum
District Fishery Biologist
GAME AND FISH DIVISION
Alabama Conservation Department
Montgomery, Alabama

KENTUCKY BIOLOGIST

The July issue of your fine magazine presented one of the best pictorial and written explanations of what watershed projects are doing to our nation's rivers and streams. As you well know, Kentucky is having the same problems as your state. If you can spare about six copies of this issue, I could certainly use them in helping to spread the "gospel". If there is any charge for these issues I would be happy to forward the money upon request.

Joe Bruna
Principal Game Biologist
Dept. of Fish and Wildlife Resources
Frankfort, Kentucky

N. C. BIOLOGIST

Would you please send us two dozen copies of the July 1969, Vol. 4, No. 7 issue of **GEORGIA GAME & FISH MAGAZINE.**

CONGRATULATIONS! Mr. Bagby and Mr. Morrison for this excellent publication. We are in complete agreement with your article. We feel that this will be of value in our efforts to control similar operations in this State.

Jim Brown
Research and Development Section
Division of Commercial and Sports Fisheries
N.C. Department of Conservation and Development
Morehead City, N.C.

OUTDOOR WRITER

Congratulation on the July issue of **Game & Fish.** This frank statement will be effective in informing the public of adverse effects of certain public works projects. Director Bagby and you are to be commended for your energetic and outspoken opposition to damaged wildlife and scenic resources that have occured under public law 566.

These atrocities will be met with public indignation that inevitably will result from your publication.

Sincerely,
Joel Arrington
President,
Southeastern Outdoor Press Association
Raleigh, N. C.

FISHING MAGAZINE?

How about something on hunting for a change. Your magazine is excellent but only for people that fish.

Billy Burdell
Augusta, Georgia

There is a saying about Methodist preachers that if you don't like the one you have, just be patient, and you'll soon have another! It's the same way with our magazine. In the fall and winter, we concentrate on seasonal hunting or game management items, and vice-versa in the spring and summer on fish.

NATIONAL TIMBER FIREWORKS

Your editorial in the July issue of Georgia **Game and Fish** is so typical of unknowing laymen and pseudo-intellectuals being heard from today. Your article is loaded with erroneous statements and catch phrases, because like so many, you are not telling it like it is. You should get your facts straight before shooting off your mouth like you have in this article. Your utterances smack of the non-thinking persons from which you attempt to disassociate yourself. Without the forest products industry and the "proper reforestation and timber management" instituted by this industry, many years ago, you wouldn't even have a job, for without the sound intensive management practiced by this vast industry, there wouldn't be enough timber left today to make paper for the next issue of your magazine.

It is apparently stylish today for laymen, (i.e., those not belonging to a particular profession) to criticize anyone who cuts down trees for whatever purpose, or who is associated with what is popularly classified as "wanton destruction of our timber resource".

The layman, self-styled preservationist, does not understand nor even try to understand the sophisticated management process involved—all he cares to see or read about is "rampant destruction of our forest". To date many acres of the National Forests are sadly in need of harvesting, many thousands of trees are simply dying on the stump, a great waste of our resources. A "thinking person" as you apparently call yourself, should be able to understand that NOT cutting and allowing this timber to rot is as much mismanagement as throwing away public money, or nearly as bad as the cut out and get out practices of the past. I think you should go back and read the May '69 issue of "Outdoor Life", which simply states "Sound forest management is sound wildlife management".

Foresters and forest industries are no more intent on destroying the forest than the medical profession is on destroying people. On the contrary, the primary motivation is to preserve, sustain, increase and conserve the resource through WISE USE. None of us expects deer and quail to eat pine cones, but you had better examine the published facts that prove game can be raised in properly managed pine forests. Have you ever seen a deer eat the top out of a 60 foot mature oak, and remember this, that little oaks WILL NOT grow from acorns unless the big oaks and other overtopping hardwoods are removed.

You of all people should know the value of Georgia's forest products and what forestry contributes to the Georgia people, as well as the entire nation. Have you looked lately on the Clark Hill Game Management area? There the game people are clear cutting, yes CLEAR CUTTING large areas—will they become deserts too? The pot calling the kettle black????

Why don't you tell it like it is? Isn't the story that Congress is wanting to set up a program so that a portion of the funds can be returned to the particular forest areas, so that more foresters can be hired to do a better job of management? I suggest that you contact Mr. Robert Stevens and see what he has to say about another Federal Agency that is doing an outstanding job of resource management—and under a system similar to the one Congress wants to put in effect on the National Forest. It might surprise you to see that it is being done.

So why don't you tell it like it is Jim?

Sincerely yours,
Harold V. Barnett
RF 501
Augusta, Georgia

Since you did not see fit to identify your affiliation with the forest industry other than the fact that you are a registered forester, we are in the dark as to whose viewpoint you are supposed to represent, but that might be embarrasing to them.

While the editor is neither a registered forester or a game biologist, the State Game and Fish Commission is fortunate to have a fine staff of men with training in both fields, which apparently you do not have. Our article was written from information they supplied, and any information we present to the public is carefully checked out with them first.

Before you start "telling it like it is," we suggest that you take time to get acquainted with the other side of the picture as we have in recent months, both from the viewpoint of the timber industry, the Forest Service, and wildlife biologists of state, federal, and private conservation agencies.

As for clear cutting on the Clark Hill Area, two small patches of three acres were experimentally cut at our request, one in a pine area, one in a hardwood area, to see what comes back, both inside and out of a deer browse enclosure.

While little oaks may not grow under a 60 foot mature oak, the deer and squirrels don't go hungry eating the acorns in the winter. How many gray squirrels have you seen in a "properly managed pine forest."

Our editorial did not advocate not harvesting surplus timber on public lands, and did not oppose maximum timber management on private lands. It did not deny the economic value of the timber industry or efforts of public spirited companies like Georgia Kraft to provide public hunting.

We do not feel that timber harvesting practices on military property in Georgia which you vaguely alluded to in your letter should be the same on National Forest lands that are heavily used for recreational purposes.

The State Game and Fish Commission in Georgia feels that earmarking timber sale funds from National Forests for timber management purposes alone with no provisions for funding other National Forest purposes is not in the spirit of the Multiple Use-Sustained Yield Act of 1960.

The Multiple Use Act was not even mentioned in the first versions of the proposed bills thrown into the hopper labeled "National Timber Supply Act: rather than "National Forest Timber Supply Act," H. R. 10961 and 10344. These bills were the subject of our editorial, which had to be written during May and turned over to the printer the first of June for inclusion in our July issue. The second version bills were introduced June 10, too late for comment in that issue.

After examining the second version, H. R. 12440, we still feel that it merely gives lip service to multiple use while violating it in spirit and fact by earmarking funds for only one of the five multiple uses of National Forest lands.

Section 7, paragraph one the bill is an example of the preferential position that would be given timber management over the other forest resources: "develop into optimum timber productivity as soon as possible the national forest commercial timberlands."

Obviously, optimum timber productivity is not multiple use, although cutting of surplus timber would be. Also, there presently is no such thing as "national forest commercial timberlands." While some acreages are set aside from timber harvest as wilderness areas, critical watershed areas, recreation areas, or scenic buffer zones around roads or streams, the rest of the National Forest lands are simply "general management lands" where all of the five multiple uses supposedly would receive equal consideration dependent on the nature of the area. These are the main areas on which wildlife, as well as trees, are found, and accelerated timber management there without adequate consideration for wildlife will be damaging to this resource which is already so important in the South. As our population grows with more leisure time and the area available for hunting, fishing, and wildlife remains stable or declines, these public lands will be needed for uses in addition to timber even more than now, even as our needs for timber increase and are partially or completely met by increased production, both on public and private forest lands. Certainly the public lands offer a much greater potential for recreation and wildlife than intensively managed private timber lands.

In addition to the general objectionable provisions of Section 7, Section 6 contains a provision for earmarking timber sales from one particular forest back to the same forest for management purposes. This is not the way to properly administer a national resource, since areas needing the most work naturally would be those that already have a low timber sale volume. The Forest Service should have adequate funds to do the job nationally and be given the freedom to determine where the need is greatest, both for timber management, wildlife, and other activities. H. R. 12006, the substitute bill proposed by the Forest Service, eliminates several of these objections.

Our contention that even this third version further compounds an inequitable amount of attention devoted to timber in comparison to other important multiple uses is strengthened by an examination of the chart of figures showing the relative amounts of money already spent on timber management in Region Eight (R8) of the Forest Service in the Southeastern United States compared to other multiple uses. For instance, timber management gets more than .54 cents per acre, and recreation gets .28 cents, while only .02 cents per acre is spent on wildlife management, although 31 per cent of the recreational visitors to southeastern forests come there for hunting and fishing.

Wildlife biologists are notoriously absent from five of fifteen southern National Forests and Region 8 has only fifteen wildlife men compared to 675 foresters. Is this a fair division?

In addition, an examination of timber sales receipts as compared to present appropriations for timber management indicates that 75 per cent of the timber sales amounts would potentially earmark almost two and a half times the present large amounts for timber management exclusively, while not providing a single penny for recreation, watershed protection, range, or wildlife, even though increased timber management activity, especially heavier logging, would have a much greater impact on the other resources.

Instead of earmarking all of this vast amount for timber management alone, why not devote 50 per cent or less to timber, 25 per cent or more to recreation, watersheds, range, and wildlife, and 25 percent to local counties where the timber is cut in lieu of property taxes, which is now practiced? Such a program would receive the vigorous support of both timber, wildlife and recreation interests, and would be of much more benefit to the general public.

RECREATION VISITOR DAYS TO ALL NATIONAL FORESTS

TOTAL	150,000,000	
HUNTING & FISHING	27,206,000	18%

RECREATION VISITOR DAYS ON NATIONAL FORESTS IN THE SOUTHEAST (Region 8)

TOTAL	16,404,200	
HUNTING & FISHING	4,956,000	31%

RECREATION VISITOR DAYS TO NATIONAL FORESTS IN GEORGIA

TOTAL	1,331,900	
HUNTING & FISHING	351,000	26%

FOREST SERVICE APPROPRIATIONS IN THE SOUTHEAST (Region 8, Fiscal Year 1969) (12,000,000 Acres)

	Total	Per Acre
TIMBER	$6,572,000	.547
RECREATION	3,366,580	.28
WATERSHED	373,000	.031
RANGE	127,300	.01
WILDLIFE	249,800	.02

FOREST SERVICE APPROPRIATIONS FOR GEORGIA (Fiscal Year 1970) (800,000 Acres)

		Per Acre
Wildlife:	$18,250	.025

National Timber Appropriations Versus Receipts

National Timber Management Receipts	$208,603,585	Fiscal Year 67
National Timber Management Appropriations	$ 60,664,000	Fiscal Year 70

Southeastern Timber Appropriation Versus Receipts

Region 8 Timber Management Receipts	$ 24,000,818	Fiscal Year 67
Region & Timber Management Appropriations	$ 6,572,000	Fiscal Year 69

Southeast Forest Service Personnel

Fiscal Year 69	Region 8
Forests with professional fisheries and wildlife biologists:	9
675 Foresters	
Forests without professional fisheries and wildlife biologists:	5
15 Wildlifers	

FISHING GUIDE

We have been cognizant of your fine magazine for some time. We always pore over it to note items of special interest, improvements, new programs and impetus. We were particularly interested in your feature on Fishing in Georgia, in the June issue.

The exceptionally fine color fish photos and interesting treatment of fishing information caught our undivided attention.

Sam L. Vandevender
Biologist
West Virginia
Dept. of Natural Resources
Charleston, W. Va.

TROUT

Continued from inside front cover

the two state hatcheries, five stocking trucks, and nine hatchery employees cost $175,000 a year, not including salaries and expenses of two biologists and two biological aides engaged in trout research work.

Considering that approximately 700,000 catchable size trout are stocked each year, such trout cost approximately 25 cents each. Since the only fishing license now required for residents costs only $2.25, and only $2.00 of this goes to the State Game and Fish Commission (eventually), it's easy math to figure that a fisherman who catches his limit of eight trout in one day has used up his share of the money for the entire season!

But if he's an avid trout fisherman, he probably won't be satisfied with fishing only one day, so he'll go back the next day, and maybe the next weekend, and the next. Who's paying for his extra fish? Maybe the fellow who doesn't catch his limit, but the most common answer is a South Georgia bass fisherman on Lake Blackshear, or maybe a catfisherman on the Altamaha River, neither of which is getting his two dollar's worth of trout.

What is the answer to providing more trout and a third trout hatchery for stocking streams in North Georgia, including new streams in the Northwestern portion, while giving the South Georgia fisherman a program that he'll get his money's worth out of?

There is a simple answer for both problems: a trout stamp.

By paying a $2.00 fee, fishermen who want to catch trout could add this stamp to their regular $2.25 yearly resident fishing license, and insure continued good trout fishing in "put and take" streams of North Georgia, while providing funds to construct and operate a new trout hatchery. At the same time, fishermen in other parts of the state who did not fish for trout would not have to support a program which does not improve their fishing.

Georgia is not alone in its need for more funds for trout stocking. Most of the states of this country that have trout fishing already have such a special trout license or stamp, including our northern neighbor Tennessee.

In fact, a bill to require trout fishermen to purchase a $2.00 trout stamp was approved at this year's session of the General Assembly by the House Game and Fish Committee, and remains alive until the session next year. Known as House Bill 833 (H.B.833), it is receiving serious consideration from the special interim House Game and Fish Revenue Study Committee, chaired by Representative Howard Rainey of Cordele.

Appearing before the Committee, the Director of the State Game and Fish Commission, George T. Bagby, asked the committee to seriously consider enactment of the trout stamp into law in 1969. Bagby told the committee that if the trout stamp is enacted, he will recommend at the same time dropping the $1.00 per day fee collected by the Commission on managed trout streams, since buying the permit each day is an added inconvenience to trout fishermen that only raises $17,000 a year and costs $16,000 to collect. Only 500 annual $10.00 permits for managed streams are sold each year.

At a time when Georgia's trout stocking program has reached its limits on the existing funds, Bagby's recommendations should receive full support from every trout fisherman and legislator who wants to see his state move forward.—*J.M.*

Sportsman's Calendar

SEASONS OPEN THIS MONTH

DOVES

Early Season—Sept. 6, 1969 through Oct. 4, 1969.

Bag Limit—18 Daily, possession limit 36.

OPOSSUM

Early Season—Sept. 27, 1969 through Jan. 24, 1970 in Coweta County only.

Bag Limit—None.

RAILS

Season—Sept. 20, 1969 through Nov. 28, 1969.

Bag Limit—7 Daily, possession limit 14.

MOUNTAIN TROUT

Open Stream Season—April 5, 1969 through Oct. 4, 1969.

Creel Limit—Eight trout of all species per day. Possession limit eight trout.

Fishing Hours—30 minutes before sunrise to 30 minutes after sunset on all open trout streams.

SQUIRREL

Early Season—Aug. 16, 1969 through Sept. 6, 1969 in the following counties only: Dawson, Fannin, Gilmer, Habersham, Lumpkin, Murray, Rabun, Towns, Union, and White.

Bag Limit—10 daily.

SEASONS OPENING NEXT MONTH

DEER

Archery Season—Oct. 1, 1969 through Oct. 25, 1969 in a county or a portion of a county which has an open gun season for deer hunting in the 1969-70 season.

Bag Limit—Two (2) bucks, or one (1) buck and one (1) doe or antlerless deer.

OPOSSUM

Season—Oct. 18, 1969 through Feb. 28, 1970.

Bag Limit—None.

RACCOON

N. Ga. Season—Oct. 18, 1969 through Feb. 28, 1970.

Bag Limit—One (1) per person per night.

SQUIRREL

Season—Oct. 15, 1969 through Feb. 28, 1970.

Bag Limit—10 Daily.

PIEDMONT NATIONAL WILDLIFE REFUGE

Deer—Archery—October 1 thru 12. No refuge permit required. Bag limit as per State regulations.

Deer—Gun—Bucks only: November 3 and 4. Bag limit 2 deer. Either sex. December 6. Bag limit 1 deer. Refuge permit required. *Applications must be in Refuge office by 4:30 PM October 1, 1969.*

Camping—The camping area will be open one day before and one day after each of the above dates.

Scouting—Daylight hours September 27 and 28 and October 25 and 26.

All State laws apply and there are additional Federal Refuge regulations. Applications for hunts and regulations may be obtained by writing Refuge Manager, Piedmont National Wildlife Refuge, Round Oak, Georgia 31080.

BLACKBEARD NATIONAL WILDLIFE REFUGE

Archery hunt for deer; either sex; bag limit—2 deer: Oct. 22-25, 1969; Nov. 26-29, 1969; Dec. 30, 1969-January 2, 1970. Raccoons may also be taken on the above hunt periods. Applications for the Oct. hunt must be made by Oct. 15, for the Nov. hunt by Nov. 19, and for the Dec. hunt by Dec. 22. Write to the Refuge Manager, Savannah National Wildlife Refuge, Rt. 1, Hardeeville, S. C. 29927.

TIDE TABLE

SEPTEMBER 1969

Day	HIGH WATER A.M.	HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Mon.	11:36	7.6	11:54	6.6	5:24	5:54
2. Tues.	. .	. .	12:24	7.2	6:06	6:42
3. Wed.	12:36	6.1	1:12	6.9	7:00	7:42
4. Thurs.	1:30	5.7	2:06	6.7	7:54	8:42
5. Fri.	2:30	5.5	3:06	6.7	8:54	9:48
6. Sat.	3:36	5.5	4:06	6.7	9:48	10:36
7. Sun.	4:42	5.7	5:06	6.9	10:42	11:24
8. Mon.	5:36	6.0	5:54	7.2	11:36	. . . .
9. Tues.	6:18	6.4	6:36	7.5	12:12	12:18
10. Wed.	7:00	6.8	7:12	7.6	12:54	1:06
11. Thurs.	7:30	7.2	7:42	7.7	1:30	1:42
12. Fri.	8:06	7.4	8:18	7.7	2:06	2:24
13. Sat.	8:36	7.7	8:48	7.6	2:42	3:06
14. Sun.	9:12	7.8	9:24	7.4	3:12	3:42
15. Mon.	9:54	7.8	10:06	7.2	3:48	4:24
16. Tues.	10:42	7.8	10:54	6.9	4:30	5:12
17. Wed.	11:30	7.6	11:48	6.6	5:12	6:06
18. Thurs.		.	12:36	7.4	6:06	7:12
19. Fri.	12:48	6.3	1:42	7.3	7:18	8:30
20. Sat.	2:00	6.2	3:00	7.3	8:36	9:36
21. Sun.	3:18	6.4	4:18	7.5	9:48	10:42
22. Mon.	4:36	6.8	5:24	7.9	10:54	11:36
23. Tues.	5:42	7.4	6:18	8.2	11:54	. . .
24. Wed.	6:36	8.0	7:06	8.4	12:30	12:48
25. Thurs.	7:24	8.5	7:54	8.4	1:18	1:36
26. Fri.	8:12	8.7	8:36	8.2	2:00	2:24
27. Sat.	8:48	8.6	9:12	7.9	2:48	3:12
28. Sun.	9:30	8.4	9:54	7.4	3:24	3:54
29. Mon.	10:12	8.1	10:30	6.9	4:06	4:36
30. Tues.	10:54	7.7	11:12	6.5	4:48	5:18

SEPTEMBER-OCTOBER 1969

GEORGIA COASTAL WATERS

HOW TO USE THESE TABLES

The calculations are for the outer bar. Find the reading for the desired tide. In the table below find the number of minutes to add to correct for the place you are going to fish or swim. The outer bar calculation, plus this correction, gives the correct reading for the point desired.

Adjust For Daylight Saving Time By Adding One Hour

CORRECTION TABLE

The times given are for Savannah River entrance (Tybee).

	Hrs.	Min.
Savannah High	0	44
Savannah (Low)	*	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabaw Sound	0	05
Vernon View	0	35
Coffee Bluff	0	55
Ogeechee River Bridge	3	50
St. Catherine Sound	0	25
Sapelo Sound	0	00
Brunswick Bar	0	00
St. Simon Pier	0	25
Frederica Bridge	0	50
McKay Bridge	0	50
Brunswick East River	0	50
Turtle River Bridge	0	55
Turtle River, Crispen Is.	1	10
Humpback Bridge	1	00
Jekyll Point	0	30
Jointer Island		55
Hampton River Village Creek Ent.	0	20
Village Fishing Camp	0	45
Taylor Fishing Camp	1	00
Altamaha Fishing Park, Everett, Ga	4	00
Two-Way Fishing Camp, S. Altamaha	2	00

	Last Quarter	New Moon	First Quarter	Full Moon
SEPT.	4	12	19	26
OCT.	4	12	19	26

OCTOBER, 1969

Day	HIGH WATER A.M.	HT.	P.M	HT.	LOW WATER A.M.	P.M.
1. Wed.	11:42	7.4	. . . .	. .	5:30	6:06
2. Thurs.	12:00	6.1	12:30	7.0	6:18	7:00
3. Fri.	12:48	5.8	1:24	6.8	7:12	8:00
4. Sat.	1:48	5.6	2:18	6.7	8:12	9:06
5. Sun.	2:54	5.7	3:18	6.7	9:18	10:00
6. Mon.	4:00	5.9	4:18	6.9	10:12	10:48
7. Tues.	4:45	6.3	5:12	7.1	11:00	11:30
8. Wed.	5:42	6.8	5:54	7.4	11:48	. . . .
9. Thurs.	6:24	7.3	6:36	7.6	12:12	12:30
10. Fri.	7:00	7.7	7:12	7.7	12:48	1:18
11. Sat.	7:36	8.1	7:48	7.7	1:24	2:00
12. Sun.	8:12	8.3	8:24	7.6	2:06	2:42
13. Mon.	8:54	8.4	9:06	7.4	2:42	3:24
14. Tues.	9:36	8.3	9:48	7.1	3:24	4:12
15. Wed.	10:24	8.1	10:36	6.8	4:12	5:00
16. Thurs.	11:18	7.8	11:36	6.5	5:00	5:54
17. Fri.			12:24	7.5	6:00	7:06
18. Sat.	12:42	6.4	1:36	7.3	7:12	8:12
19. Sun.	2:00	6.4	2:54	7.3	8:30	9:24
20. Mon.	3:18	6.7	4:06	7.4	9:42	10:18
21. Tues.	4:30	7.2	5:06	7.6	10:42	11:12
22. Wed.	5:30	7.7	6:00	7.8	11:30	. . . .
23. Thurs.	6:18	8.2	6:48	7.9	12:00	12:30
24. Fri.	7:06	8.5	7:30	7.8	12:48	1:18
25. Sat.	7:48	8.6	8:06	7.6	1:30	2:06
26. Sun.	8:24	8.6	8:42	7.3	2:18	2:48
27. Mon.	9:00	8.3	9:18	6.9	2:54	3:30
28. Tues.	9:42	8.0	10:00	6.5	3:36	4:12
29. Wed.	10:24	7.6	10:42	6.2	4:18	4:54
30. Thurs.	11:06	7.3	11:24	5.9	4:54	5:36
31. Fri.	11:48	7.0			5:42	6:24

To report violations or if you need assistance in the Coastal Area - Call - State Game & Fish Commission, Brunswick, Georgia.
P. O. Box 1097, Phone 265-1558; Savannah 232-2282; Richmond Hill 756-2679

:ORGIA

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GAME & FISH

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November 1969 Volume IV Number 11

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Thank God for the Georgia Conservancy!

■ It doesn't take long in the conservation business for most individuals employed by state or federal governmental agencies to learn that their efforts to make and keep our world a better place to live in will only be as successful as people want them to be.

But even if most people do want to save our air, soil, water, forests, and wildlife from senseless destruction or selfish exploitation in our age of sometimes uncontrolled technological "progress", their wishes may remain unheard or unheeded, unless these solitary individuals unite in a group large enough and loud enough to be heard above the clamor.

The latest and one of the most promising groups to come along in Georgia that meets this description is the Georgia Conservancy, an energetic, growing organization that has already enlisted the active assistance for conservation of more than 1,700 individual members in less than two years of existence.

Unlike all too many groups in the outdoor field that are formed primarily for social or recreational interests, the broad field of conservation of our total environment is the one and only interest of the Georgia Conservancy. As a result, its members are limited to individuals with a genuine interest and desire to protect natural resources, without being sidetracked on more self-centered activities.

By the same token, the Georgia Conservancy speaks with more weight in matters of broad public concern because its members do not represent the interests of only one area of conservation, although groups such as the Georgia Sportsmen's Federation, the Georgia Forestry Association, and the Soil Conservation Society have outstanding records of support for conservation causes not limited to their major interests.

Just as its members are not confined to any one economic, educational, or occupational level, the Georgia Conservancy isn't hampered by restrictions on the age, sex, or race of its members. Many of its most active members are intelligent, capable, concerned women. (And don't think they can be stereotyped as "little old lady in tennis shoes" types!)

The Conservancy is still too young to recite a glowing list of accomplishments, but the causes it has become involved with include virtually every current conservation issue in Georgia today: the proposed Okefenokee Swamp wilderness area, the proposed Cumberland Island National Seashore, protection of Georgia's marshlands from unwise developments (it fought staunchly and successfully against Kerr-McGee phosphate mining), creation of National and State Scenic Rivers (it supported successful efforts to pass this year's State Scenic River Act), establishment of State natural areas (including Sweetwater Creek, Providence Canyon, and Panola Mountain, the latter which the Conservancy holds the title to through the Nature Conservancy, making state purchase possible), successful defense with others of Piedmont National Wildlife Refuge and its hardwood timber so valuable to wildlife from the Georgia-Pacific Corporation, opposition to channelization of the Alcovy River and to unwise timber management practices on National Forests, to name only a few of the many

Continued on page 16

ON THE COVER: The masked bandit of the midnight moon, the raccoon. Sometimes a pesky predator, the raccoon is plentiful in the many swamps and marshes of South Georgia. In the northern parts of the state where he's less plentiful, the 'coon is the favorite game species of a rugged band of men who hunt him in the dark of the night with bell voiced hounds. Painting by George Reiney Jr., Columbus, Ga.

ON THE BACK COVER: Autumn leaves of October gilding the falls of Blood Mountain Creek on the Chestatee Game Management Area north of Dahlonega. This pool is just a few hundred yards above Dick's Creek. Color photo by Game and Fish's chief photographer, Ted Borg.

PHOTO CREDITS: Ted Borg, 1 & 2 except t. l., 3, 12, 14; Leonard Lee Rue III, 1 & 2 t. l; Marvin Tye , 4 & 11.

You come home from work, and you can't help but notice the crisp freshness of the early autumn weather. You settle into your favorite easy chair in your den, and your eye comes to rest on the gun rack.

From that point, your wandering thoughts are narrowed down to one subject . . . hunting! It's that time again, and memories of last season's forays afield are relived again.

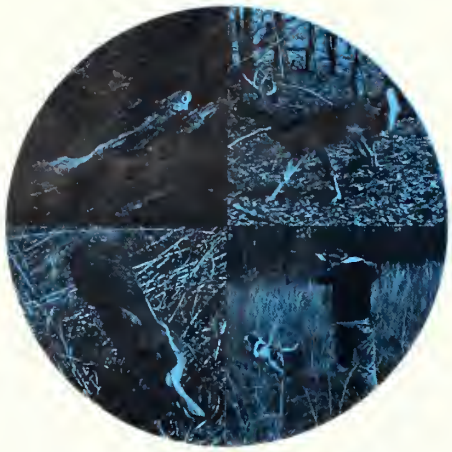
Rarely does the mind bring back days when game was scarce, though pleasant moments afield are recalled acutely.

What does this season hold in store? How are chances, you ask, of getting the game you want?

Actually, changes in most game populations in Georgia are rather slight

GAME BAG BAROMETER

By Dean Wohlgemuth



Squirrels swam lakes and rivers, dashed across highways, and walked for miles to leave their homelands in the northern part of Georgia last year which was barren of acorns, nuts and other mast which they feed on. It may take awhile before a good population is built up again in the mountain and Piedmont sections.

Buck fever, anyone? If a look at a fine buck like this doesn't give it to you, you'll never get it. Even old timers get a tingle of excitement over such a sight. Your chance of seeing a buck in Georgia's woods is getting better each year. This year, [illegible] of Georgia's 159 counties have a deer season.

Rabbits are [illegible] north and middle Georgia, but in [illegible] to the fall [illegible] know the [illegible] and [illegible] trying [illegible] to get your [illegible]

from one year to another, unless there's a drastic change in weather or other factors, such as land use. Yet, land use changes are usually gradual enough that one year varies little from another. Over a period of years, however, distinct changes are noticeable.

The greatest recent example of a sudden change from one year to another occurred last year in squirrel populations. A heavy mast crop in North Georgia in 1967 produced a bumper crop in squirrels, but a late spring freeze in 1968 killed most squirrel mast, and left them hungry.

Early season squirrel hunting in the mountains and the Piedmont was excellent, but as the season wore on, squirrels migrated farther and farther south, and the more northerly areas were pretty well void of squirrel hunting.

So where does that leave us this year? Well, there was a good mast crop, all right, enough to start bringing back a squirrel population. Yet, early in the season, there isn't going to be much hunting. Squirrels propagate late in the year and might, in a good mast year, reproduce all winter. This isn't going to help the first of the season, but perhaps by late in the season squirrel hunting will be better in the northern half of the state. But your best chances of getting squirrel stew when the season first opens Oct. 15 is south of the fall line in South Georgia.

The other change of major importance this year is in dove hunting. There's bound to be more dove dinners this year, but not so much because of a population change as because of a bag limit change.

For experimental reasons, the dove bag limit is 18 birds per day this year, 50 per cent more than last year's limit of 12.

This does not reflect a big increase in birds, although the crop does appear to be in good shape this year. There may be some fluctuation from year to year, but it is almost always so slight as not to be noticeable. Perhaps there's a slight decline over the past 20 years, but basically this season won't be noticeably different from the past 10 or 12 years. It's very likely, however, that there will be a change next year because of the bag limit increase. Just how much change remains to be seen, and that's why the change was made . . . to find out.

The barometer of how good the hunting is, appears to be steady on several other species such as rabbits, quail, wood ducks, grouse and even deer in some areas.

Looking at them one by one, here's how they stack up:

Rabbits—No overall change. South Georgia hunting will be excellent as always, many more rabbits than hunters. North Georgia remains only fair. Rabbit studies over the past few years indicate that reproduction is down in North Georgia, and that apparently parasites may be a factor. The change of land use from agriculture to forest and pasture here has meant a loss of good habitat.

Quail—There have been good hatches of birds so far this year, though all the returns weren't in at publication time. August is often the peak month of quail nesting, but results weren't noticeable by the time this report was written. Weather and other conditions pointed toward a good production year, however, and there's no reason to believe there will be any less birds than usual. Of course, the change of land use is a big factor here, too, with less and less suitable land for quail each year. Even where there are plenty of birds, hunters may find they're deep in the woods where it's mighty tough shooting. Over the long haul, quail continue a steady decline because of less and less suitable land. The best answer to improving quail hunting would be controlled burning of woodlands, to provide better habitat and more open cover for shooting.

Wood ducks—The continued increase of beavers and beaver ponds spell out good news for the wood duck, and thus the wood duck hunter. This duck, the only native of its clan to Georgia, is continuing its trend of increased numbers over all the state. Migratory ducks are another story. Of course, duck populations continue to spiral downward, but in addition to this the Georgia duck hunter is dependent upon the weather. Unless it gets cold enough early in the season, the duck hunter just has to wait it out until the birds are forced farther south by the cold.

Rails and gallinules (marsh hens)—There are bound to be plenty of these migratory waterfowl along the coast, many more than there are hunters who are willing to pole a boat through the marshes to look for them.

Woodcock and snipe—Here again, a general lack of interest on the part of hunters means there's more hunting available than there are hunters. Wherever there are marshes, these birds are

in good supply, in any part of the state.

Turkey—The outlook here is bleak, particularly in fall hunting. Spring gobbler hunting is about all the turkey hunter can look forward to, and this is declining each year.

Bear—Not even worth mentioning. Very poor.

Grouse—Few broods have been seen this summer, but this doesn't mean much. Until leaves fall and berries are ripe, grouse aren't likely to be seen. Grouse are very wary when rearing their young. However, there's no reason to believe that grouse hunting will be less than normal. No indication of a decline here.

This brings us up to deer, the last on our list for this report, but the fastest growing sport in the state, both from the standpoint of interest on the part of the hunter, and in the numbers of animals.

Actually, the deer population enjoys a small annual increase overall, in those areas already hunted, since these sections have already built up huntable, stable populations, and hunting pressure keeps them at the optimum level for the available habitat. North Georgia and the Piedmont sections are doing quite well in holding their own, while South Georgia sections, however, where hunting with dogs is legal, is decreasing in deer numbers in some sections.

There are more deer in Georgia as a whole each year, though the greatest increase in numbers are in those counties where deer populations are still in the process of being established . . . those counties not yet open to hunting.

Yet more and more counties are open to hunting each year. For the 1969 season, the deer hunter can take his choice of 128 of the 159 counties in the state . . . leaving only 31 counties not yet opened.

Of course, some of these are metropolitan areas. But other than those heavily populated sections, it is possible that another five years may find all other counties open for hunting, depending on how well the deer do in these presently unopened counties. The big factors here are habitat, of course, but also pressure of illegal hunting, and control of free running dogs, which hold deer populations down.

In estimating the future of deer hunting, one must look not to the fawns born this past spring, but those born 18 months before the opening of a hunting season. This year's crop of fawns won't be old enough to grow a set of antlers, but next year they'll be spike bucks . . . at least the males, of course! (At least 50% of Piedmont deer 1½ years and 2½ years of age have four to five points.)

So, in order to judge this year's hunting, let's turn back the calendar to the spring of 1968. Here, we find there was good reproduction among the deer, so there should be a good supply of young bucks, which produce a considerable portion of the year's total bag of all hunters.

But while we're looking, we'll note that reproduction was good this spring too, and barring disaster through predation by dogs (weather does not affect deer reproduction), lack of food and habitat and so forth, the 1970 deer season also looks good at this point.

Just how good might be best decided by looking at last year's deer harvest figures. In the 1968 season, Georgia deer hunters took home an estimated 25,000 deer. This includes all open hunts and managed hunts as well. There were an estimated 140,000 hunters, so more than one hunter in six got his venison.

In the managed areas, the bag was 1,100 deer. While this is only a small part of the total bag, only a fraction of the land in Georgia is included in management areas. All the areas in the state total something like 750,000 acres, as compared to a total area of the entire state of 37 million acres. Sure, not all counties are open, but somewhere around five out of every six counties now has a deer season.

Where's the best part of the state to go hunting? Look at it this way . . . 34 per cent of the deer killed in Georgia last year came from the Piedmont section of the state. This is more than a third of the state's total kill. North Georgia produced 20 per cent, or one fifth of the total kill, but the mountain section is considerably smaller, and acre per acre produces about as well as the Piedmont.

The largest percentage of deer came from the coastal plain and along the coast, where 37 per cent of the deer were killed last year, yet this includes by far the largest area of hunting land, especially Fort Stewart. Southwest Georgia produced only nine per cent of the state's total harvest.

Even so, no matter what part of the state you live in, own land, or have land available to you for hunting, it looks like your chances of having some good hunting are pretty good indeed!

What greater feeling is there, than wading out to pick up a duck you just bagged, from among your decoys? Unless cold weather strikes soon enough to bring the waterfowl as far south as Georgia, duck hunters may find slim pickings until late in the season. However, prospects seem to be as good as can be expected with more mallards this year and the limit for them increased to three.

BUCKSKIN

y Marvin Tye

Sam Ingram bagged his massive buck on land owned by Continental Can Company in Oglethorpe County. The deer weighed 304 pounds to take first place in the weight division of the second annual big deer contest.

For Sam Ingram and Gary Littlejohn, 1968 was the best deer hunting season ever.

Ingram bagged a massive buck that weighed 304 pounds, field dressed. Littlejohn's trophy buck sported a rocking chair rack that scored 178 2/8 points on the Boone and Crockett scoring system. Both men won big game rifles in the second annual Big Deer Contest sponsored by Georgia *Game and Fish* Magazine and the Georgia Sportsmen's Federation. Ingram's buck had the largest weight of any deer entered this year; and Littlejohn's buck had the best scoring antlers.

Ingram's buck weighed only 14 pounds less than the monster bagged last year by Barry Hancock. Hancock's deer, the prize winner for 1967, holds the newly established state record for weight. Littlejohn's rack is larger than the one bagged by Leonard Shirley last year. Shirley's buck scored 172 7/8, making it eligible for listing in the Boone and Crockett record book. The world's record typical whitetail rack scored 206 5/8. The largest whitetail on record weighed 402 pounds field dressed.

Sam Ingram bagged his big deer last Nov. 9. He and a companion, Lewis Miller of Athens, were hunting on land belonging to Continental Can Company in Oglethorpe County near Ingram's home at Route 1, Crawford. Ingram and Lewis were walking down a firebreak when they spotted three deer at the forest's edge about 100 yards ahead. All of them ran except the big buck. He paused for a fatal moment to look at the two men approaching him. That was long enough for Ingram to align his iron sights and place a 220 grain bullet from his .30/06 Remington in the rib cage just behind the buck's shoulder.

"The buck just turned around, took a couple of steps and seemed to sit down on the ground," Ingram said. "We were lucky that the deer was killed in a spot where we could reach it so easily with the car. If we had to drag one that big for a long distance, it sure would have been a lot of work. It was hard enough to move it just a few yards.

"We weren't really expecting to bag a deer that morning," Ingram continued. "We were just scouting the area to see if it would be a good place to hunt." This was the first deer killed by the 55-year-old hunter, who also likes small game hunting for quail and other species. He claims that his chicken farm and combination store and gas station keep him too busy to hunt as much as he would like to.

It is an interesting fact that in the two-year history of the big deer contest, all of the winners have scored with the first deer that they ever killed. This should indicate that luck plays a big part in deer hunting. Also, it shows that a number of trophy-class deer are to be found in Georgia.

Both of last year's winners were young men. Leonard Shirley was 17 when he bagged his prize-winner and Barry Hancock was 23. Ingram is the first of the older generation to score in the contest.

Another youth, 20-year-old Gary Littlejohn, bagged this year's winner in the big antler classification. Gary is the son of Mr. & Mrs. William G. Littlejohn of Barnesville. Gary, now 21 and a private first class in the U. S. Army, was later seriously wounded in combat in Viet Nam, and is now being treated at Walter Reed Hospital in Washington, D. C.

Littlejohn was hunting on land owned by William G. Chapman in Lamar County near Milner. Chapman's son Greg was along on the hunt and gave the following account of the hunt. "We went to our stands about 5:30 in the morning. I put Gary on a platform nailed between three hardwood trees. I believe they were maple or blackgum. I went down to my stand a short distance away and hunted until about 8 o'clock. I had to go to school, so I got

BONANZA

Gary Littlejohn, right, bagged this record-class buck on William Chapman's farm near Milner. Greg Chapman, left, hunted with Gary and described the events for Game and Fish Magazine. Gary was wounded in Vietnam and is now being treated in Walter Reed Hospital in Washington, D.C. Gary's buck scored 179 2/8 points, making it eligible for listing in the Boone and Crockett Club record book.

down from my stand and started to walk out. Gary was using a .303 Enfield. I heard it fire just after I got down from the stand. I believe I spooked that buck and ran it by Gary. He shot it in the spine and dropped it on the spot. It was traveling through a honeysuckle thicket a short distance from Gary's stand."

Greg's father, William G. Chapman, and a friend, Lewis Graham, brought the mounted buck to Atlanta to be measured by Jack Crockford, assistant director of the Game and Fish Commission, and an official measurer for the Boone and Crockett Club. None of these men could predict at the time that Gary would be wounded in Viet Nam. It is hoped that he will be fully recovered by December and will be able to claim his prize at the annual meeting of the Georgia Sportsmen's Federation.

With another hunting season now in full swing, hunters should be aware of the possibility of bagging a prize-winning buck. The Piedmont area of Georgia seems to produce the heaviest deer as well as those with the best racks. If you bag an unusually large deer, it might pay off to investigate its trophy possibilities. An exceptionally large set of antlers is not enough to qualify a rack under the Boone and Crockett system. Symmetry is also important. A balanced symmetrical rack often scores more than a larger rack which has unbalanced or oddly-shaped tines. The system considers such things as number of points on each antler, tip to tip spread, greatest spread, length of main beam, length of each point, and the circumference at several locations on the main beams. The totals of these various measurements are added to make up the final score. Points may be subtracted from this final score for abnormalities.

Any buck scoring more than 170 points is eligible for listing in the Boone and Crockett record book. These trophies must be bagged in a sporting manner with a legal weapon such as a rifle, shotgun or bow and arrow as defined by the hunting regulations of the Game and Fish Commission. The Pope and Young Club uses the Boone and Crockett system to score trophies taken by bow and arrow only. A buck scoring 115 points is eligible for listing in the Pope and Young record book.

To be entered in either of these competitions, the deer must be measured by an official measurer such as Jack Crockford. The weight or score of any deer entered in the Georgia Big Deer Contest must also be verified. Sam Ingram's big buck was weighed at Bradley's Provisions in Athens by Fred and Jack Bradley. They said that the deer looked like a big bull.

To be weighed for the contest the deer must be either intact — for live weight — or field dressed with only its internal organs removed. *It may not be weighed in pieces!* The hide, head, legs and skin must be attached to the body.

Certificates are given to any hunter who enters a deer of more than 200 pounds field dressed weight or a Boone and Crockett score of 150 typical or 175 non-typical points. Deer killed in past seasons are eligible for certificates or for record establishment, but not for entry in the contest.

Fortunately, both Littlejohn and Ingram selected former Athens taxidermist David Almand to mount their trophies. A district vice-president of the Georgia Sportsmen's Federation at the time, Almand encouraged both men to enter their unusual kills in the contest, two of only 10 entries last year, compared to 20 the first year of the competition.

Hunters may obtain extra entry forms from the Atlanta office of the Game and Fish Commission, from wildlife rangers, affiliated clubs of the Georgia Sportsmen's Federation, and recognized Big Deer Contest weighing stations.

It has been proved that trophy bucks roam the Georgia woods. Maybe a prize winner is out there waiting for you to claim.

Big Deer Contest

Sponsored by the Georgia Sportsmen's Federation and Georgia **Game & Fish** Magazine.

Ga. Record	World's Record
Weight: 320 lbs., Barry Hancock, Thomaston, Upson Co., Nov. 4, 1967	402 lbs.
Typical Rack: 184 pts., Gene Almand, Riverdale, Newton Co., Nov. 16, 1966	205⅝ pts.
Nontypical Rack: 171⅞ pts., Barry Hancock, Thomaston, Upson Co., Nov. 4, 1967	286 pts.

The Georgia Sportsmen's Federation and Georgia **Game and Fish** Magazine are co-sponsoring a big deer contest, complete with a prize of a high powered rifle each to the hunters who take the heaviest deer and the deer with the largest rack during the current deer season.

In addition, master hunter's award certificates will be presented to hunters who bag a buck weighing more than 200 pounds field dressed, or who bag a buck that scores more than 150 points on the Boone and Crockett Club system of measurement. Certificates will be awarded to any hunter who has made an authenticated big buck kill during any previous hunting season, but only animals bagged during the current hunting season are eligible for the contest prizes.

RULES:

The following rules apply to both the weight and the antler division contests.

1. Any hunter is eligible regardless of whether or not he is a member of an affiliated club of the Georgia Sportsmen's Federation or a subscriber to Georgia **Game and Fish** Magazine. Hunters need not be residents of the State of Georgia to enter, but only deer taken in the State of Georgia by legal means and in conformity with all state and federal game laws and regulations may be entered.
2. Only deer killed during the current season will be considered for the contest prizes, but hunters may submit kills from any previous season for a master hunter's certificate by completing the application form or a facsimile.
3. Deer killed with a bow and arrow are also eligible, provided they meet minimum requirements. Indicate on the affidavit that archery equipment was used, rather than a rifle or shotgun.
4. PHOTOGRAPH: A clear photograph is desirable if it's one that can be kept by Georgia **Game and Fish** Magazine. Please do NOT send a photograph that you want returned. All photographs and entry forms become the property of Georgia **Game and Fish** Magazine. Please identify all pictures submitted with your name written on the back.
5. The Georgia Sportsmen's Federation and Georgia **Game and Fish** Magazine reserve the right to re-measure any trophy rack entered, to interview witness of weighings, to examine scales used for weighing deer, and to refuse any questionable application.
6. Before the affidavit can be accepted, the truth of the statements must be attested before a qualified officer such as a notary public, justice of the peace, sheriff, municipal clerk, postmaster, member of a state or local law enforcement agency, wildlife ranger, etc.
7. There is no entry fee for the contest.
8. Address all correspondence regarding these awards to: Big Deer Contest, Georgia **Game and Fish** Magazine, 270 Washington St., S.W., Atlanta, Georgia, 30334.

RULES FOR WEIGHING DEER:

1. All weights entered will be for field dressed deer. For purpose of this contest, field dressed deer will be defined as animals which have had all of the organs in their chest and intestinal cavities removed, including heart, lungs, liver, stomach, and intestines. The head and legs of the animal should still be joined to the body. If the body is further dismembered, only the weight of the remaining attached portions will be considered.
2. Two competent witnesses to all weighings must sign the affidavit in the presence of the certifying officer listed in rule number five above.
3. Deer must be weighed on either a hanging balancing scale or a platform scale, rather than a spring-type scale. If no scales are locally available, take your deer to the nearest meat market, processing plant, Game and Fish Commission office, or official Big Deer Contest Weighing Station.
4. Deer entered in the weight division need not have their antlers measured under the Boone and Crockett Club system.

RULES FOR MEASURING DEER RACKS:

1. Split or repaired skulls will not be accepted.
2. Antlers may not show removed or repaired points. Bucks entered as trophy racks need not be weighed.
3. Instructions for measuring racks are as follows under the internationally recognized Boone & Crockett Club system:

All measurements must be made with a flexible steel tape to the nearest one-eighth of an inch. Wherever it is necessary to change direction of measurement, mark a control point and swing tape at this point. To simplify addition, please enter fractional figures in **eighths.** Official measurements cannot be taken for at least sixty days after the animal was killed. **Please submit photographs.**

Supplementary Data measurements indicate conformation of the trophy, and none of the figures in Lines A, B and C are to be included in the score. Evaluation of conformation is a matter of personal preference. Excellent, but nontypical Whitetail Deer Heads with many points shall be placed and judged in a separate class. To win, nontypical racks must have more than 25 points more than the highest typical rack.

A. **Number of Points on each Antler.** To be counted a point, a projection must be at least one inch long AND its length must exceed the length of its base. All points are measured from tip of point to nearest edge of beam as illustrated. **Beam tip is counted as a point but not measured as a point.**

B. **Tip to Tip Spread** measured between tips of Main Beams.

C. **Greatest Spread** measured between perpendiculars at right angles to the center line of the skull at widest part whether across main beams or points.

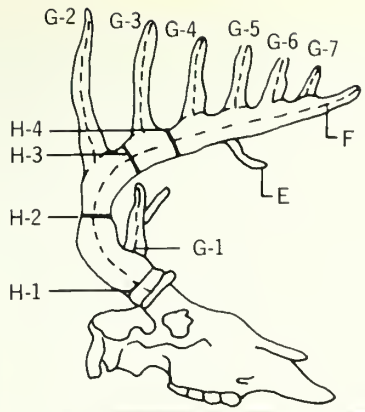
D. **Inside Spread** of Main Beams measured at right angles to the center line of the skull at widest point between main beams. Enter this measurement again in "Spread Credit" column if it is less than or equal to the length of longer antler.

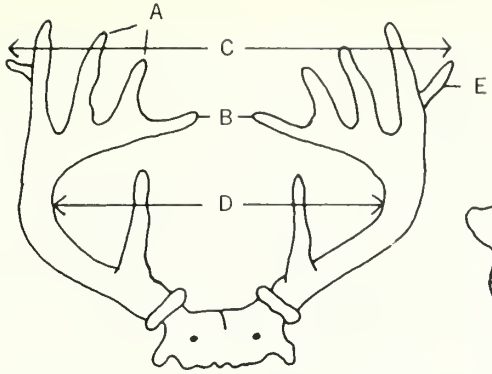
E. **Total of Lengths of all Abnormal Points.** Abnormal points are generally considered to be those nontypical in shape or location.

F. **Length of Main Beam** measured from lowest outside edge of burr over outer curve to the most distant point of what is, or appears to be, the main beam. The point of beginning is that point on the burr where the center line along the outer curve of the beam intersects the burr.

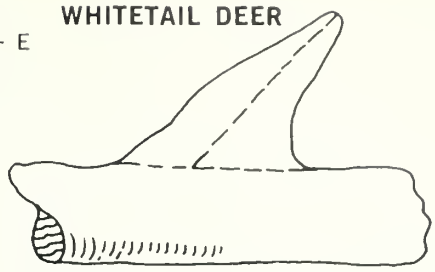
G-1-2-3-4-5-6-7. **Length of Normal Points.** Normal points project from main beam. They are measured from nearest edge of main beam over outer curve to tip. To determine nearest edge (top edge) of beam, lay the tape along the outer curve of the beam so that the top edge of the tape coincides with the top edge of the beam on both sides of the point. Draw line along top edge of tape. This line will be base line from which point is measured.

H-1-2-3-4. **Circumferences**—If first point is missing, Take H-1 and H-2 at smallest place between burr and second point.





WHITETAIL DEER



DETAIL OF POINT MEASUREMENT

	Supplementary Data R.	Supplementary Data L.	Column 1 Spread Credit	Column 2 Right Antler	Column 3 Left Antler	Column 4 Difference
A. Number of Points on Each Antler						
B. Tip to Tip Spread						
C. Greatest Spread						
D. Inside Spread of MAIN BEAMS — Spread credit may equal but not exceed length of longer antler						
If Inside Spread of Main Beams exceeds longer antler length, enter difference						
E. Total of Lengths of all Abnormal Points						
F. Length of Main Beam						
G-1. Length of First Point, if present						
G-2. Length of Second Point						
G-3. Length of Third Point						
G-4. Length of Fourth Point, if present						
G-5. Length of Fifth Point, if present						
G-6. Length of Sixth Point, if present						
G-7. Length of Seventh Point, if present						
H-1. Circumference at Smallest Place Between Burr and First Point						
H-2. Circumference at Smallest Place Between First and Second Points						
H-3. Circumference at Smallest Place Between Scond and Third Points						
H-4. Circumference at Smallest Place between Third and Fourth Points or half way between Third Point and Beam Tip if Fourth Point is missing						
TOTALS						

ADD	Column 1		Remarks: (Mention any abnormalities)
	Column 2		
	Column 3		
	Total		
SUBTRACT Column 4			
FINAL SCORE			

PRINT OR TYPE ALL INFORMATION

Please enter my deer in the (Check one or both)
☐ Weight Division ☐ Antler Division

When Killed_____What County in Ga._____
Month Day Year

If killed on a public hunting area, give name_____

Number of Points over one inch long_____

Total number of points if measured under Boone and Crockett instructions above_____

Field Dressed Wt. (See rules)_____ Live Wt., if known_____

If not weighted, give estimated field dressed weight (Antler Division Only)_____

Type of Scales_____Location_____

Rifle or Shotgun Used (Make)_____Caliber or Gauge_____

Number of Shots_____Range_____

Make, wt., and type of bullet_____Sights_____

Reaction of animal_____

Bullet performance_____

Hunter's Name_____

Home Address_____Home Tel. No._____
(Street)

_____
Town State Zip

Off. Tel. No._____Hunting License No._____

We, the undersigned, witnessed the weighing and/or measuring of the deer described above and verified the weight and/or measurements given.

1. Signature _____
   Address _____
2. Signature _____
   Address _____

Sworn to and ascribed before me this_____day of_____, 19___.

_____(Title)_____
(Signature of a qualified officer—See Rule 5, Notaries please Seal)

Mail all entries and photographs to Big Deer Contest, Game & Fish Commission, 270 Washington St., S.W., Atlanta, Georgia 30334

MALCOLM
EDWARDS
'69

MY FIRST

FALCON

By Malcolm G. Edwards

The young falcon sat calmly on the block, not realizing she was completely free. I backed carefully upwind, almost afraid to move lest she become frightened. About 100 feet away, I stopped. She bobbed her head at a passing buzzard, but continued to sit calmly on the block.

She was my first peregrine, and I was shaking with excitement and fear that I might lose her. Taking a deep breath, I took my lure from the bag and swung it in a circle. The falcon sprang from the block immediately and flew rapidly at the lure. Just before she could grab it, I switched it away and she went by, mounting on the wind. In surprise—as this was her first free flight—she quickly reached 50 feet and turned downwind, picking up speed alarmingly. In near panic I called and showed her the lure. She turned as if tied to a string and again beat upwind at the lure. This time I let her strike it and drop with it to the ground. She shook her feathers, looked around proudly, and began to tear at the raw meat tied to the lure. I quickly snapped her jesses—six inch leather legstraps—to the leash and collapsed on the ground beside her. Her first flight was an unqualified success, but I was completely unnerved.

My interest in falconry began in 1946 when some school children brought an immature female Coopers hawk to the N. C. State Museum where I worked. Trapped when she chased a bird through an open window, she was pushed into a box from which she now glared at me with blazing yellow eyes. She was completely fascinating, and started an active interest that has never ceased. I read everything available and started training hawks. She

continued on next page

The author with his favorite falcon, "The Countess," a hooded peregrine that was still shedding youthful down when this picture was made. Edwards ha trained and hunted many other falcons.

The h d n the head of this f con u ed t k p h n quiet during tr ng even if he newly trapped.

was followed by a series of redtails, sparrow hawks, and other hawks and falcons.

The fascination hawks and falcons hold for some of us is hard to explain. They are fiercely independent and will not tolerate man-handling. They are beautiful creatures, perfectly designed for the role they play in nature's scheme. Their speed, mastery of flight, and complete lack of fear in attacking prey many times their size are part of this fascination. There may even be some inherent motivation such as moved that ancient Persian king who trapped and hunted the first falcon over five thousand years ago.

My first peregrine falcon, whose maiden flight so unnerved me, was a bird I'll never forget. She was an eyass, a nestling taken from a sheer cliff in Pennsylvania many years ago. Our love affair started from the moment I laid eyes on her, and lasted long after I saw her last. I romantically named her "The Countess", and raised her in the backyard on beef heart, calcium and cod-liver oil. She changed from a stub-tailed, pinfeathered baby to a very dark and beautiful peregrine falcon.

She was my pride and joy, and I spent many hours stroking her with a feather as she sat on my hand, or simply watched her as she perched on her block in the yard. At night I'd often listen for her bells as she shifted on her perch. The Countess was a fine example of the eastern peregrine, a bird rarely seen anymore. She was much darker than the tundra peregrines that raise in northern Canada and follow the shore birds down the east coast each fall.

After that breathtaking first flight, we both gained confidence and I flew her to the lure almost every day at a nearby airfield.

Wide open spaces are needed to exercise a peregrine, as they can dive at two hundred miles per hour. The Countess grew to expect me each afternoon, and would eagerly jump to my fist and then to the backrest of the car seat. After a short ride, and not far from the parked car, I'd release her, free except for the jesses and the bells which helped keep her located. I always carried a live pigeon in addition to the lure. In case of an extreme distraction or emergency, she could be counted on to come to the pigeon if she could see it. The lure is a horseshoe, padded and covered with leather. The Countess had fed on it almost from the time I obtained her, and instantly recognized it as the source of food.

Falcons and hawks are controlled by habit and appetite. They grow to depend on the falconer for food, and come when he calls and shows them the lure or a piece of meat.

The falcon would leave my hand and dive low over the field, flying hard to build up speed. She'd pull up in a steep climb, level off slightly and start circling, gaining altitude. At five hundred feet, she would level off to see what was going on. If I didn't swing the lure and call her down immediately, she'd wander, looking for a lark or other bird. Larks were almost impossible to flush if the falcon was overhead. One, at which she stooped and missed, let me pick it up out of the grass rather than risk flying.

A flock of crows would usually charge out of the nearby woods if she came close and drive the falcon back. An adult peregrine with years of hunting experience would have made short work of one crow or a flock of crows, but The Countess had no such experience. She would retreat with occasional short stoops at her tormentors until the crows realized that they were directly over my head, and, they thought, quite vulnerable. Squawking loudly, they'd head back for the woods, and then it was her turn again. She'd knock feathers out of a black marauder now and then, but never managed to kill one.

After she tired of fighting crows, she'd usually light on a telephone pole and rest for a few minutes. Falcons must be kept in shape. They can't be too fat or they will perch in a tree and not move for hours. They must be well-fed to keep their strength, but still able to develop a keen appetite. One is never flown with a full crop. A falconer soon learns his bird and recognizes her moods. He can tell at a glance when she's sharp and when she's off. He knows that on some days she will be unaccountably nervous, and it's best to skip that day's flight.

I could nearly always move her after a few minutes rest, though, by swinging the lure. She'd come in a long gliding dive, picking up speed at an astonishing rate. She'd come at me on a course as direct as a ray of light, shifting at the final second, anticipating where the swinging lure would be. At the last instant, I'd jerk the lure out of her grasp and she would shoot up like a climbing jet, obtain her pitch, and start another dive.

It was a game—one we both understood and delighted in. Before she became discouraged, I'd drop the lure to the ground and let her feed.

Although a wild peregrine falcon is one of the fastest birds alive and a near-perfect flying machine, The Countess caught very little game. I'd sometimes release a pigeon for her to take. She'd tip over and come down like a fighter plane, an occasional wingbeat increasing her almost unbelievable speed. She'd either miss completely or make a clean kill. When she passed the pigeon, what appeared to be a light contact would cause an explosion of feathers and the pigeon would tumble. The Countess would tower up, reduce her speed, and drop onto the kill. Once, as she shot up from stooping at the lure, she intercepted a dragonfly which she deftly plucked from the air without a change in wingbeat. She lit on a telephone pole and ate it, holding it in one foot exactly as a child holds an ice cream cone.

After several months, she grew exceptionally tame, dependable, and quite affectionate. I felt no qualms when releasing her, and we regularly had an audience for her afternoon exercise. She grew tolerant of crowds and was not disturbed by strangers. I flew her once on the paratroopers' jump field at Fort Bragg before a thousand 4-H youngsters. She performed admirably that day, following the lure as if it were magnetized and took a pigeon in one breathtaking stoop.

When she first began to fly, she was reluctant to make the effort it took to get altitude. I trained her to climb with a trick used by falconers centuries ago. She had to be taught that a kill was possible only after she had attained her pitch; that is, reached a point high above her prey. When she was downwind, I'd release an old, strong-flying pigeon. They'd see each other immediately, and the wily old pigeon would start climbing. In a stern chase, the falcon would fight hard to catch up. However, due to his start, the pigeon would out-climb her, and at six or seven hundred feet she would give out, the old pigeon still climbing high overhead. At this time I'd call and throw out a younger pigeon which she'd take immediately in a long, fast dive. She soon realized that she must have the advantage of height.

One day, a friend from another state came by and wanted to see her fly. When we left the car a strong wind was blowing and The Countess was impatient to be free. I released her and she immediately mounted up to a thousand feet. We started across the field hoping to jump a lark. Intent upon this, I didn't notice something far in the distance catch the falcon's attention. When I did notice, she was a half-mile away and going like a falling star. She disappeared behind the trees a mile away. I never saw her again.

I searched for weeks and missed her for months. I've had many hawks, several prairie falcons, and three other peregrines, but none ever replaced The Countess.

Game and Fish Commission Director George T. Bagby examines a fine buck taken on the Allatoona Wildlife Management Area where a firearms hunt for deer limited to 500 hunters will be held Nov. 24, 25 and 26. An unlimited number of hunters may enjoy the first bowhunt to be held on the Allatoona area Dec. 1-6.

MANAGED AREAS PROSPECTS FINE FOR 69

By Marvin Tye

The outlook for hunting on Georgia's wildlife management areas is as bright this year as it has been for any of the past few seasons. The deer hunting picture is especially rosy, with some areas allowing hunts for deer of either sex and bowhunting for the first time this season.

In order to harvest an unusually large number of does and balance the herd, a limited number of hunters may take deer of either sex on a special hunt with firearms on Clark Hill Wildlife Management Area this year. The hunt will be held November 24 through 25 instead of the normal week long buck hunt. Bag limit will be one deer of either sex. Only 300 hunters will be allowed to participate in the hunt. These will be chosen in a drawing of names of applicants.

Drawings to select hunters for the Clark Hill and all other quota hunts will be held in Atlanta on November 14. Letters of application must be postmarked from November 3 through November 8, 1969 and must contain a check or money order for five dollars to cover the cost of the permit. This fee will be returned to those whose names are not drawn.

Bowhunters will be able to hunt Clark Hill from November 17 through November 22 and take one deer of eithe sex. Many bowhunters are pleased that this hunt comes after the regular bowhunting season October 1-25. This gives them an extra hunting opportunity.

Hunters on Clark Hill will be able to pursue quail, squirrel, rabbits, doves and ducks in season December 10-24 and January 3-31, Wednesdays and Saturdays only.

Dick Whittington, regional game management supervisor, rates deer hunting on Clark Hill as "really good" and small game hunting fair. He says there is not a high population of quail on the area and only a fair squirrel population.

Whittington rates deer hunting on Cedar Creek as better than last year. "No doe hunting was allowed last season," he said. "This means that a lot of bucks that were antlerless last year survived the hunt. Normally a number of these are bagged on either sex or antlerless hunts. These deer should have good racks now. There are some big bucks on the area."

There will be two deer hunts on Cedar Creek this year. The first firearms hunt for bucks only will be held November 24-28. Limit is one antlered buck per hunter. A firearms hunt for antlerless deer will be held December 29-30. A quota of 1,000 hunters has been set. Bag limit will be one antlerless deer.

The small game hunts for any species in season will be held October 15, 18, 22, 25, and 29; December 3, 6, 10, 13, 17, 20, and 24; and January 3, 7, 10, 14, 17, 21, 24, 28, and 31, Wednesdays and Saturdays only.

Deer hunting should be better than last year on Piedmont Experiment Station according to Whittington. An antlerless deer hunt, set for December 30, is the first to be held on the area. This will be a quota hunt limited to 400 hunters. Bag limit will be one antlerless deer.

A primitive weapons hunt for antlered bucks only will be held October 13-18 on the Experiment Station. Bag limit will be one buck.

J. L. Rentz, area manager at Suwanoochee Wildlife Management Area points out likely hunting areas to deer hunters. Area managers, biologists and other Game and Fish Commission personnel attend each managed hunt and offer advice and assistance when needed.

[illegible] back in the [illegible] station in 1967. [illegible] year will [illegible] in [illegible] November 24-28 [illegible] hunters [illegible] firearm.

Firearms hunters will be able to take one antlered buck during the deer hunt November 24-28 on the Experiment Station. Quail and squirrel hunting are predicted to be good on the area. Hunting for small game in season will be allowed on Wednesdays and Saturdays only December 3 through December 24 and January 3 through January 31.

Deer hunting on Oaky Woods is expected to be slightly better than last year, Whittington said. This is the third hunt to be held on this area that holds a number of trophy bucks. Hunting with firearms for bucks only will be permitted November 24-29. Bag limit is one antlered buck.

There is a good population of squirrel and quail on Oaky Woods. Hunting for both species is expected to be good. Hunters bagged some 400 to 500 doves on the area last fall. Dove hunting is expected to be as good this year. Small game hunting for any species in season is set for Wednesdays and Saturdays, September 10 through October 1; October 15-25; December 3-24; and January 3-31.

Deer hunting on Piedmont National Wildlife Refuge at Round Oak is expected to be as good as it was last year. According to Whittington, it doesn't vary much from year to year.

C. V. Waters, district biologist at Gainesville, says that prospects for deer hunting in all the management areas in the North Georgia mountains are about equal to or slightly better than last year. Squirrel populations are down because of emigration last year. Grouse hunting is expected to be better than last year. The highest deer population on any of these mountain areas is on the Lake Russell Area.

Buck only hunts will be held on Blue Ridge, Chattahoochee, Chestatee, Coleman River, John's Mountain, Lake Burton, Lake Russell, Swallow Creek and Warwoman on November 24-29. Bag limit will be one antlered buck.

A buck only hunt, with a limit of one antlered buck will be held on Allatoona November 24, 25 and 26. This will be a quota hunt with only 500 hunters allowed. The first archery hunt ever held on Allatoona will be December 1-6. Limit will be one deer of either sex, with no restrictions on the number of archers.

Other archery hunts set for the management areas in the mountains are Blue Ridge: October 27-31, John's Mountain: October 20-25, Lake Russell: October 27-31. Bag limit on each of these is one deer of either sex. The Blue Ridge and Lake Russell hunts were scheduled after the end of the regular bow season to give archers a hunting area to go to, but the hunts there must end on Friday to avoid conflict with the beginning of the open area gun deer season November 1.

A primitive weapons hunt will be held at Warwoman October 27-November 1. Bag limit will be one antlered buck.

Cedar Creek will have an antlerless deer hunt December 29-30. Bag limit will be one antlerless deer. This will be a quota hunt with 1,000 hunters allowed.

Special either sex hunts will be held December 6 on Blue Ridge, Chattahoochee, Coleman River, and Lake Russell. All of these will be quota hunts with a limit of 300 hunters on Chattahoochee and Coleman River, 600 on Blue Ridge and 500 on Lake Russell. Lake Burton will have an either sex hunt December 29. It will also be a quota hunt limited to 300 hunters. Bag limit will be one deer of either sex.

Oscar Dewberry, district biologist at Darien, says he has seen more wood ducks this year than ever before around the Altamaha area. He predicts fair dove hunting at Champney Island. He also predicts good rabbit hunting on Butler Island after the duck season. This year managed duck hunts on Butler Island will be held on Saturday only. Dewberry said the reduction of two days of hunting each week during the season to one day of hunting is to lessen the hunting pressure on the refuge. He said that hunting only one day during each week should provide more ducks killed during the season than hunting two days a week, because hunting two days each week would result in too much hunting pressure on the available duck population. Small game hunting for all species is allowed on the Altamaha area during the regular state season for each species. Duck hunting is allowed on Butler Island only on Saturday during the regular season. Rabbit hunting on Butler Island is allowed only after the duck hunting season ends. Deer may be hunted in season on the Altamaha area.

Deer hunting should be good on the Brunswick Pulp and Paper Company area near Jesup. The Game and Fish Commission has done some planting of food for deer and quail and plans to do more to improve the habitat for these species. Bow hunting for deer on the Brunswick Pulp and Paper Company area will be allowed from October 1 through 14. Bag limit is one deer of either sex. Deer hunting with firearms will be allowed on this area from October 15 through January 3. Special regulations apply to each tract of the area. For details, write for the booklet on Georgia's Game Management Areas published each year by the Game and Fish Commission. Hunters

MANAGED DEER HUNTS SCHEDULE

(Hunts marked "QH" with a number are limited quota hunts. Number of hunters allowed is indicated. Hunters will be determined by drawings in advance of the hunt. For details on each area, consult the directory.)

	Dates	*Areas*
PRIMITIVE WEAPONS	Oct. 13-18	Piedmont Exp. Station (Buck only)
	Oct. 27-Nov. 1	Warwoman (Buck only)
	Nov. 10-15	Suwanoochee (Either Sex)
	Nov. 21-22	Chickasawhatchee (Either Sex)
ARCHERY (EITHER SEX)	Oct. 1-14	Brunswick Pulp & Paper Co.
	Oct. 20-25	John's Mt.
	Oct. 27-31	Lake Russell, Blue Ridge
	Nov. 17-22	Clark Hill
	Dec. 1-6	Allatoona
	Dec. 15-20	Bullard Creek
BUCK ONLY	In Season	Altamaha and Lake Seminole
	Oct. 15-Jan. 3	Brunswick Pulp and Paper Company (Special regulations apply to each tract of this area. See special section in this brochure for details.)
	Nov. 17-22	Arabia Bay
	Nov. 24, 25, 26	Allatoona (QH 500)
	Nov. 24-28	Cedar Creek
		Piedmont Exp. Station
	Nov. 24-29	Blue Ridge, Bullard Creek, Chattahoochee, Chestatee, Coleman River, John's Mt., Lake Burton, Lake Russell, Oaky Woods, Swallow Creek, Warwoman
	Dec. 1-6	Waycross State Forest
	Dec. 5-6, 19-20	Chickasawhatchee (QH 300 each 2 days)
	Dec. 15-19	Suwanoochee (permit required, no fee)
ANTLERLESS ONLY	Dec. 29-30	Cedar Creek (QH 1,000)
	Dec. 30	Piedmont Experiment Station (QH 400)
EITHER SEX	Nov. 24-25	Clark Hill (QH 300)
	Dec. 6	Blue Ridge (QH 600), Chattahoochee (QH 500), Coleman River (QH 300), Lake Russell (QH 500)
	Dec. 20	Suwannoochee
	Dec. 29	Lake Burton (QH 300)

may take any small game in season except during dog deer hunts. Raccoon hunting is not allowed.

The first bow hunt ever held on the Bullard Creek Wildlife Management Area near Hazelhurst is set for December 15-20. Hunters may take one deer of either sex. Firearms hunters may take one antlered deer during the hunt November 24-29. Dewberry says deer hunting should be good on Bullard Creek this year. Some planting of food for deer, quail and turkey has been done. Quail hunting should be better than last year and spring gobbler hunting should be fair. The turkey flock is holding its own, not increasing or decreasing in number. Hunting for quail, squirrel, rabbit, dove and snipe, in season, will be allowed on Bullard Creek December 3, 10, 17, 24, and 31 and January 3, 7, 10, 14, 17, 21, 24, 25, and 31.

Georgia's newest managed area, Alapaha, will have its first small game hunt this season. Dates are January 5-10, 1970. Hunters may take any small game in season on this hunting ground near Tifton. According to Frank Parrish, regional game biologist, prospects are fair for dove and quail hunting. Rabbit and squirrel hunting should be good. Parrish says the area is all former farm land which is privately owned and contains a lot of hardwood trees. There are no dove fields as such, but several open fields where doves sometimes congregate. There is a good population of both grey and fox squirrel and a good population of deer. Deer hunting is not allowed this season but will be at sometime in the future.

The Arabia Bay Area will be open for hunting bucks only with firearms November 17-22. Bag limit will be one antlered buck. Parrish says that there is a good deer population on the area, but hunting is difficult because of the dense palmetto and pine vegetation. There are some wet-weather ponds on the area with stands of hardwoods. Parrish recommends hunting in these for best results. Small game hunting for quail, squirrel and rabbit will be allowed on Arabia Bay November 24-29. Parrish predicts quail hunting to be fair, squirrel to be good and rabbit hunting to be fair to good. No fees or permit are required for small game hunting on this area.

A primitive weapons hunt for deer is scheduled for November 21-22 on Chickasawhatchee. Bag limit will be one of either sex, plus small game by state regulations. Permit for this hunt may be obtained at the checking station. Prospects for this hunt are rated as excellent by Parrish. Primitive weapons hunters scored a 30% success ratio in last year's hunts.

Conventional firearms hunters will get their chances at Chickasawhatchee deer December 5-6, and 19-20. These will be quota hunts limited to 300 hunters. Prospects for success are rated as excellent. Bag limit will be one antlered buck.

The Grand Bay area near Valdosta will be open for the taking of any small game in season. Dove hunting is predicted to be fair, quail good, squirrel and rabbit good, and duck hunting fair.

Parrish says the Lake Seminole Area should offer fair to good duck hunting, good squirrel and rabbit hunting, fair quail hunting, and fair to good coon hunting. The Lake Seminole area is open to the hunting of all species in season.

A primitive weapons hunt for deer will be held on the Suwanoochee Area November 10-15. Bag limit will be one deer of either sex. Hunting with firearms for bucks only will be allowed December 15-19. Bag limit will be one antlered buck. On December 20, firearms hunters may take one deer of either sex. Deer are abundant but hard to hunt on this area due to the dense vegetation. There are some wild hogs on the area and hunters may bag any number of these animals during deer hunts.

Small game hunting for quail, squirrel and rabbit will be allowed on Suwanoochee November 14-29. Squirrel and rabbit hunting is predicted to be fair to good and quail hunting is predicted to be good.

Firearms hunters may bag one antlered buck December 1-16 on Waycross State Forest. One bear may also be taken on this hunt. There is a fair population of bear on the area. Although none were bagged last season, several were spotted by hunters.

Quail, squirrel and rabbit hunting on Waycross State Forest will be legal November 27, 28, and 29 and December 11, 12, and 13. Prospects are good for quail and fair to good for rabbit and squirrel.

According to Frank Parrish, the best bets for deer hunting in his region are Chickasawhatchee, Arabia Bay, Waycross State Forest and Suwanoochee.

the outdoor world

Interior Department Opposes Alcovy Channel

The principal conservation agency of the U. S. government has asked the U. S. Department of Agriculture to re-evaluate its plan of channelizing some 80 miles of stream in the proposed Alcovy Watershed Project in middle Georgia.

In a letter to Secretary of Agriculture Clifford M. Hardin, the U. S. Interior Department said it would be opposed to the project of Agriculture's Soil Conservation Service unless a compromise was reached over the channelization.

James R. Smith, Assistant Secretary of the Interior, wrote "We are becoming increasingly disturbed over the number of projects being planned which will involve rather extensive alteration of streams. If the emphasis on this practice continues, the result will be the ultimate destruction or serious degradation of irreplaceable and valuable public resources including stream fisheries, in many bottom lands and rivers. We support sound water management and in this case do not oppose the floodwater retention structures planned for this purpose. However, we believe that the strictly localized benefits attributed to stream channelization would be far outweighed by the damages to natural resources of value to widespread interests."

The Interior Department letter recommended that the "proposed plan of flood protection be returned to the State Conservationist for re-evaluation, in cooperation with the Georgia Game and Fish Commission and the Bureau of Sport Fisheries and Wildlife." The SCS State Conservationist is Cecil Chapman, with state offices at Athens, Georgia. The Bureau of Sport Fisheries and Wildlife is an Interior Department agency of the federal government. The SCS is a part of the federal Agriculture Department.

"The purpose of re-evaluation," Smith concluded, "is the elimination of that portion of planned stream channel alterations below the downstream impoundments along those reaches in which natural resources would be significantly damaged or destroyed."

The letter cited a recent report by Professor Charles H. Wharton, head of the biology department of Georgia State College in Atlanta, "The Alcovy River—A Unique Natural Heritage," as the best testimony in support of the values of the Alcovy River system for recreational, educational, esthetic and scientific purposes.

"In contrast to most other Piedmont rivers," wrote Smith, "the Alcovy is unpolluted. Among those rivers, the Alcovy is almost unique in the extensiveness and nature of its remaining swamp and bottom-land hardwood types." He added that such ecosystems are fast disappearing from the American scene.

The four-page letter went on to say that "construction and operation of the proposed Cornish Creek and Flat Creek (tributaries included in the Alcovy proposal) project will adversely affect the above-cited values and resources, including fish and wildlife, in the watershed. Adverse environmental effects on Lake Jackson, located immediately downstream from the watershed, will result from both Alcovy River projects. The most significant changes will occur as a result of channel alterations. These alterations will destroy or seriously degrade streambank, bottom-land hardwood, and wooded swamp habitat; greatly reduce the quality of habitat of resident stream fishing and the stream spawning areas of Lake Jackson fishes" and lower the quality of the lake by sediment from the channelization.

Smith also pointed out that there will be extensive areas, under the work plan, of shallow water in proposed reservoirs which would prompt weed and algae growth, which could cause odor and undesirable taste in the water to be supplied for muncipal uses.

He also noted that some waste discharges from towns in the system are a potential threat to water quality in two of the proposed lakes, unless additional treatment facilities are built.

Stream channelization, however, was cited as the major reason for concern. Smith said the City of Covington's water treatment facilities, for municipal water supply, "may be inadequate to cope with the potential sediment load" from the upstream dredging and other construction work.

The Alcovy River

Sportsmen Speak...

Letters will be subject to standard editing and must bear the writer's name and address. Short letters will be given preference. Occasionally, when there is valid reason, the writer's name may be omitted upon request.

FEDERAL BIOLOGIST

Just recently, I read your fine July 1969 edition regarding the P. L. 566 Program. It was vividly displayed and extremely well written.

We would certainly appreciate obtaining 25 copies of this edition. We also are faced with many P. L. 566 projects in the Prairie Pothole Waterfowl Breeding Grounds of the Dakotas and Minnesota. This edition will assist us in our work.

If there is a charge, please send a statement.

Lawrence W. DeBates
Staff Specialist
Wetlands Enhancement
Division of Wildlife Services
Bureau of Sport Fisheries and Wildlife
Fish and Wildlife Service
U.S. Department of the Interior
Twin Cities, Minnesota

NEW YORK

Just read your article entitled, "Our Ruined Rivers", which appeared in Volume IV, Number 7 of the "Georgia Game and Fish", your unit's publication.

I have been with the NYS Conservation Department's Division of Fish & Game since 1949 and have had much the same experience as you describe. Our terrain is a little different, and I don't think I could catalog quite so much outstanding destruction. If I were to lump the collective construction costs by private and governmental individuals, we certainly could make a very damaging case against the SCS.

I would like very much to send your very explicit article to each of nine county work unit conservationists I deal with, as well as the Department of Transportation's design engineers and certain citizens who have evidenced a genuine interest in preserving the natural resources of this State. If you could spare two dozen reprints or two dozen issues of the magazine. I would be pleased to put them to good use.

Congratulations on a fine documentation of one of our truly significant problems. I hope that because of this, you can shortly point to considerable improvement.

John D. Gould
Regional Supervisor
State of New York
Conservation Department
Division of Fish and Game
Stamford, New York

TROUT FISHERMAN

I offer my congratulations to you and the Commission for your stand on the Soil Conversation Service's Watershed Programs. You and the Commission are giving a concerted effort to protect Georgia's wildlife resources, and the sportsmen of Georgia are greatly appreciative.

Being primarily a trout fisherman, I am much concerned with the Commission's work in this area. I believe the anglers of Georgia would readily accept a trout stamp program. Each fisherman would be required to purchase a trout stamp and affix it to his fishing license before he would be allowed to fish for stream trout. The cost of the stamp could be one dollar or less with all revenue from the stamps going to the trout program.

I, as many Georgians do, fish exclusively for wild trout. The people of Georgia and the Commission must take immediate steps to save our irreplacable wild streams. Apparently, many people with influence believe that a road should be cut beside every small stream in the North Ga. area. Once this is done, permanent siltation occurs and the fishing declines. This is evidenced by Panther Creek in Habersham County.

Many of Georgia's blue ribbon trout streams originate or flow through private property and then enter public land. Many owners of the private property use practices which are detrimental to fish habitat. The land owners channel and dredge the streams with little regard as to the condition of the water as it enters public land. Such practices eliminate vegetation which affords cover and food for trout and destroys spawning pools. Thermal pollution and siltation accompany these practices. This is evidenced by the upper Soque River in Habersham County.

Much prime trout water in North Georgia is posted. I am not against private property, but the trout in these streams are owned by the people of Georgia. Many of these trout are the offspring of trout stocked at public expense, particularly the holders of fishing licenses. Could not some of these wild lands be leased by the Commission? The money could come from the aforementioned trout stamp program. If these lands were kept wild, there would not be a great deal of fishing pressure.

Michael E. Barrett
Marietta, Georgia

JACKSON CABIN OWNERS

I received a copy of your article on the proposed Alcovy watershed projects and find it most informative and in the interests of the cottage owners on Lake Jackson.

A native Atlantan, I retired some 12 years ago, built a home on Lake Jackson and have spent practically my entire time on the Lake in the interests of the owners. I have already contacted over 100 of the owners and intend to keep at it. I am passing the single copy of your magazine around and feel that if I could get about six more copies I could triple the number of owners. Without exception they are 100% behind your efforts.

I would like to up-date your information on Lake Jackson. With assistance we have just completed a complete accurate count of cottages on the lake with following results, effective July 15, 1969.

Butts County	869
Jasper County	396
Newton County	328

1593 lakeside cottages; 380 additional lots sold. Conservative appraised values $12,700,000.00 plus, and furnishings and boats $5,650,000.00. These are not fanciful figures. I have personally appraised the property in Butts County for the county for the past five years and estimates on the Newton and Jasper Counties were made by me personally as we made the census survey. These values are constantly increasing in dollars and properties.

Only 4.1% of this number are residents of Butts, Jasper and Newton Counties with about 50% of this number interested only in speculative purchase and sale of their places. 80% or 1300 are from Metro Atlanta with others principally from McDonough, Griffin and Macon and individuals from Texas and New York State.

Also about the pollution. I have had the water checked repeatedly and find no evidence as yet of sewage in the central or lower part of the lake. Siltage is coming principally down the South River. Only narrow shallow shifting channels remain in the entire South River Section of the lake from the junction with the Yellow River above Rocky Point Landing to the natural head of the South River. Actually, the silt has filled up the west side of the head of the Ocmulgee River immediately below the junction with the Yellow to such an extent that several cottage owners can't even get up to their places in outboard boats. As you state in your article a good deal of silt is coming down the Yellow River, but fortunately there is a wide low swampy area around the section where the Yellow River comes into the lake proper and the silt is largely being held back by this low bush-filled swamp. Actually, the silt has filled very little of this section during the past several years. I went up yesterday and made another test on the Yellow River to be sure conditions had not changed.

I have personally seen the disasterous effects of channelization and how certain individuals in certain areas go out and buy up worthless swamp land, get the Federal Government to improve it, and by local legerdermain, manage to sooner or later get it into some program and be paid for not farming it. All the good I have seen from channelization is to provide a ditch for the rapid drainage of rain water with resultant increased drought during dry periods.

I am thoroughly familiar with the section the SCS claims they will improve as I used to hunt both sides of the area and I have been unable to find anyone who is interested in cotton or opening gins. I have not been able to find any record of flooding or anyone that knows anything about it in Monroe or Winder where I have wide acquaintance. I had the dubious honor of accompanying a gentlemen from the SCS from Washington a couple of years ago on a worthwhile project. He noticed a field of young peas and remarked "That seems to be a good stand of young cotton!" And they send that type down to improve our lot. Finally, there is a creek between McDonough and Stockbridge crossing Hy 42 which has been ditched and all it does is furnish a stream of muddy water into Lake Jackson. I have directed the owners to this SCS project and they got an eyeful.

Again my personal thanks for your efforts in our behalf and I am sure the 1593 owners on Jackson Lake are equally grateful.

A. H. Thurmond Jr.
President
Jackson Lake Cottage and Cabin Owners Ass'n.
Jackson, Ga.

BOWHUNTERS

This is to inform you that the Georgia Bowhunters Association is going on record to support you and your Commission in your fight to stop the useless dredging of the Alcovy River, and the subsequent draining of its surrounding swamp and marsh land.

As sportsmen, we do not condone such wasteful and haphazard actions that will benefit only the few greedy Real Estate mongers and truly rob so many sportsmen and outdoorsmen of this beautiful area.

We have many members that hunt the Newton County and lower Alcovy basin and they have expressed their deep concern in this matter.

Some believe that it is very possible that record, or certainly some near-record deer abound in this area. So it would be tragic to deprive these animals of their natural habitat.

Again, we want to commend you and your commission on your fine effort in trying to convince the S. C. S. and others of the great loss this project and others like it will place upon the people of the State of Georgia.

We stand behind you in this effort 101%.

Larry M. Cameron
President
Georgia Bowhunters
Association
Atlanta, Ga.

THANKS

Thank you for your continuing fight for Lake Jackson and surrounding wildlife area. It would seem Soil Conservation Service Director Kenneth Grant is the man we need on our side. I have written our senators and Representative Blackburn and am today wiring the Governor.

Ernest W. Gibson
Monticello, Georgia

DEATH AND TAXES

Your article in **Fish and Game** for July is all true, but you have not seen anything yet.

The city lawmakers now outnumber the rural ones and they seem determined to destroy the farmers and timber owners by high ad Valorem tax.

The Atlanta Constitution fights any forest tax relief by saying that Union Bag and St. Regis would benefit thousands of dollars.

You state in your article that forests are largely privately owned, which they are at the present time. They will not be long if they are confiscated by tax.

The forest owner is forced to cut out hardwood and drain his swamps, indeed he is being forced to "clean out" in some instances. I know, for I am being forced to do these things against my better judgment.

I have been a strong conservationist for 40 years, but I cannot pay $2800.00 county tax every year and realize a decent living for my family on 2200 acres of forest land. It is very discouraging.

J. L. Stephens
Tifton, Ga.

Mr. Stephens raises some very valid issues that deserve immediate consideration and action. Without some tax relief for landowners who do not "develop" their land, it is doubtful if many green areas will be left even in a semi-natural state for our children to enjoy as we have, except in a handful of public parks or natural areas.

SPEAK OUT

I subscribe to the Georgia Game and Fish magazine. I enjoy it very much. It's good to see conservationists like yourself and others on your staff speaking out against corporations like Kerr-McGee who exploit our wildlife resources.

Charles K. Barrows
Ft. Ben Harrison, Indiana

WOOD DUCK BOXES

I have just received the June 1969 issue of the **Georgia Game and Fish Magazine.** My sincere and hearty congratulations for the splendid job you and your staff are doing. This is truly one of the finest issues ever. Your magazine continues to improve, if improvement is possible, and I am extremely proud to place it in my office for all to see.

I was especially pleased to learn of the cooperative wood duck nesting box project underway by the Georgia Outdoor Sportsman's Club of Cobb County. Such approaches cannot help but meet with success.

J. David Almand
Extension Specialist
Wildlife Management
Federal Extension Service
U.S. Dept. of Agriculture
Washington, D.C. 20250

DR. SUDIA

I agree with you wholeheartedly when you say the talented Dr. Sudia in giving a credit line for your two covers. They are superb. In fact, I think so highly of them I would like to contact Dr. Sudia. Please send me his address.

I have just returned from 2 months in Alaska. Need any photos of Dall Sheep or walrus??????

Leaving Monday for a short trip up to Ungava for Caribou.

Leonard Lee Rue III
Blairstown, New Jersey

Mr. Rue is one of America's outstanding outdoor photographer-writers. He is the author and photographer for many wild animal books, including The World of the Beaver. His photographs have appeared in Game and Fish on several occasions, including the chipmunk on the back cover of the June issue.

CARDINAL COVER

There is no doubt about it, your recent August issue of Game and Fish was a most interesting magazine and the best one yet. However, I do have some criticism. It must have been hard to pass the back page red cardinal and come to the front with the thrasher. Yes, I understand the thrasher is the official state bird, but pick up a copy there on your desk and look at the cardinal. Did you ever see a bird in his class with more poise, beauty, and color?

Something tells me this back cover will go in a lot of frames and in the den or elsewhere in the house.

Keep up the good work.

Marvin Crawford
Carnesville, Georgia

SAVE THE FOREST

Currently, I am serving my nation aboard the USS Hancock, which is now deployed to the Tonkin Gulf in support of our policies in Viet Nam.

One of my favorite publications that I receive is the monthly issue of "Georgia Game and Fish." In the last issue, Vol. 4, No. 7, July, 1969, I was thoroughly shocked by Mr. Jim Morrison's article found on the first page, "National Forests: To Cut or Enjoy?"

Being a native of Dalton, Georgia, I have always enjoyed the opportunity to hunt and fish in the beautiful timberlands which are found in the National Forests of North Georgia. As I presently perspire in the turmoil of our Southeast Asian effort, it is a serene reward to reminisce of those days in the Chattahoochee Forest as a boy. It sends a tingle up my spine to remember the lightning bolt of a rainbow trout as he explodes toward my lure; or the first shot at that wirey ole' buck, who now graces my den wall. These are experiences that man has the God-given right to continue enjoying.

After reading Mr. Morrison's article, I now wonder if my only son of four months, will ever have the opportunity to enjoy the natural forests as his father and grandfather did? Is it possible for timber interests to rob Georgia's native sons of their inherited rights? Can timber management be so important that it robs us of nature's last meager holdout in Georgia? Are the dedicated efforts of our Forest Service to be scuttled so quickly?

These are questions that deserve answers which will lead to true preservation of our National Forest Lands. For once the beauty is chopped away, Mother Nature must toil for many years to recreate the splendor that man has robbed from posterity.

Dennis A. Locklear

DEER HUNTING LEASE?

Your April, 1969, issue has just come to my attention, especially the "Sportsmen Speak" column. Two letters discuss the problem of deer dog hunting; one especially singles out the problem in Stewart County.

For the past ten years we have welcomed deer hunters on a specified 2000-acre tract in extreme northwestern Stewart County that abounds in deer, even to the extent of advertising in the local paper that hunters were welcome. In recent years this tract has suffered every unsportsmanlike operation imaginable—fire, trash dumping by hunters, deer baiting, timber cutting and finally one greedy hunter who took it upon himself to **post** the land against other hunters, unbeknown to the actual landowner.

How could we get in touch with a responsible group of real sportsmen who would like to lease this area for deer and wild turkey hunting on a basis that would give both the wildlife and the landowner some relief from the ever present game hog?

Your suggestions will be appreciated . . . and thanks.

W. C. BRADLEY CO.
R. C. Connor
Forester

Mr. Connor's address is P. O. Box 140, Columbus, Ga. 31902.

GEORGIA CONSERVANCY

Continued from inside front cover

banners the Conservancy is fighting under. These causes received a tremendous boost just a few weeks ago with the announcement of a $100,000 grant to the Conservancy by the Callaway Foundation of LaGrange.

Conservancy members are kept well informed about conservation issues and are urged to take appropriate action at the right time by a newsletter that goes to every member at least twice a month, by planned field trips once a month every fourth Saturday to an important natural area, and by an annual conference featuring outstanding expert speakers on the environmental issues facing Georgia and the nation today.

For as little as five dollars a year, membership in the Georgia Conservancy is one of the best investments in the future of your state and your world that you can make.—*J.M.*

For more information and a membership application blank, write to the Georgia Conservancy, 1025 Candler Building, 127 Peachtree St., N.E., Atlanta, Georgia 30303, or telephone (404) 525-1818.

Sportsman's Calendar

SEASONS OPENING THIS MONTH

DEER

Archery Season—Oct. 1, 1969 through Oct. 25, 1969 in any county or a portion of a county in all of Georgia except the southeast which is open Oct. 1-Oct. 14, 1969.
Bag limit—One (1) buck and one (1) doe or antlerless deer.

Firearms—Oct. 15, 1969 through Jan. 3, 1970 in southeast Georgia.

Bag limit—Two bucks.

OPOSSUM

Season—Oct. 18, 1969 through Feb. 28, 1970.

Bag limit—None.

RACCOON

No. Ga. Season—Oct. 18, 1969 through Feb. 28, 1970.

Bag Limit—One (1) per person per night.

SQUIRREL

Season—Oct. 15, 1969 through Feb. 28, 1970.

Bag Limit—10 Daily.

SEASONS NOW OPEN

MARSH HENS (RAILS)

Season—Sept. 20, 1969 through Nov. 28, 1969.
Bag Limit—15 daily, possession limit, 30.

SEASONS OPENING NEXT MONTH

BEAR

Season—November 1, 1969 through January 3, 1970 in Brantley, Charlton, Clinch, Echols, and Ware counties.

DEER

Season—November 1 through November 15, 22, 29, 1969 or January 3, 1970 or Nov. 1, 28, and 29, 1969, depending on area regulations. Write for complete copy of regulations.

QUAIL

Season—November 20, 1969 through February 28, 1970.

Bag Limit—12 daily, possession limit, 36.

RABBITS

N. Ga. Season—November 15, 1969 through January 31, 1970.

N. Ga. Bag Limit—5 daily.

S. Ga. Season—November 20, 1969 through February 28, 1970.

S. Ga. Bag Limit—10 daily.

RUFFED GROUSE

Season—November 20, 1969 through February 28, 1970.

Bag Limit—3 daily, possession limit, 6.

TURKEY

S. W. Ga. Season—November 20, 1969 through February 28, 1970 in Baker, Calhoun, Decatur, Dougherty, Early, Grady, Miller, Mitchell, Seminole, and Thomas counties.

S. W. Ga. Bag Limit—Two (2) per season.

BLACKBEARD WILDLIFE REFUGE

Archery hunt for deer; either sex; bag limit—2 deer: Oct. 22-25, 1969; Nov. 26-29, 1969; Dec. 30, 1969-January 2, 1970. Raccoons may also be taken on the above hunt periods. Applications for the Oct. hunt must be made by Oct. 15, for the Nov. hunt by Nov. 19, and for the Dec. hunt by Dec. 22. Write to the Refuge Manager, Savannah National Wildlife Refuge, Rt. 1, Hardeeville, S. C. 29927.

COASTAL MARSHLANDS BILL PUBLIC HEARING

A public hearing on H. B. 212, the Marshlands Protection Bill authored by Reid Harris of Brunswick, will be held by an interim committee of the State Senate on October 18th at 10:30 a.m. at Brunswick Junior College. The public is invited to testify. For details, see the editorial "The Money Changers Are Still In The Temple" in the August issue of **Game & Fish.**

TIDE TABLE

OCTOBER-NOVEMBER 1969

GEORGIA COASTAL WATERS

HOW TO USE THESE TABLES

The calculations are for the outer bar. Find the reading for the desired tide. In the table below find the number of minutes to add to correct for the place you are going to fish or swim. The outer bar calculation, plus this correction, gives the correct reading for the point desired.

Adjust For Daylight Saving Time By Adding One Hour

CORRECTION TABLE

The times given are for Savannah River entrance (Tybee).

	Hrs.	Min.
Savannah High	0	44
Savannah (Low)	*	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabaw Sound	0	05
Vernon View	0	35
Coffee Bluff	0	55
Ogeechee River Bridge	3	50
St. Catherine Sound	0	25
Sapelo Sound	0	00
Brunswick Bar	0	00
St. Simon Pier	0	25
Frederica Bridge	0	50
McKay Bridge	0	50
Brunswick East River	0	50
Turtle River Bridge	0	55
Turtle River, Crispen Is.	1	10
Humpback Bridge	1	00
Jekyll Point	0	30
Jointer Island		55
Hampton River Village Creek Ent.	0	20
Village Fishing Camp	0	45
Taylor Fishing Camp	1	00
Altamaha Fishing Park, Everett, Ga.	4	00
Two-Way Fishing Camp, S. Altamaha	2	00

	Last Quarter	New Moon	First Quarter	Full Moon
OCT.	4	12	19	26
NOV.	2	10	17	24

OCTOBER, 1969

Day	HIGH WATER A.M.	HT.	P.M	HT.	LOW WATER A.M.	P.M.
1. Wed.	11:42	7.4	...	..	5:30	6:06
2. Thurs.	12:00	6.1	12:30	7.0	6:18	7:00
3. Fri.	12:48	5.8	1:24	6.8	7:12	8:00
4. Sat.	1:48	5.6	2:18	6.7	8:12	9:06
5. Sun.	2:54	5.7	3:18	6.7	9:18	10:00
6. Mon.	4:00	5.9	4:18	6.9	10:12	10:48
7. Tues.	4:45	6.3	5:12	7.1	11:00	11:30
8. Wed.	5:42	6.8	5:54	7.4	11:48	....
9. Thurs.	6:24	7.3	6:36	7.6	12:12	12:30
10. Fri.	7:00	7.7	7:12	7.7	12:48	1:18
11. Sat.	7:36	8.1	7:48	7.7	1:24	2:00
12. Sun.	8:12	8.3	8:24	7.6	2:06	2:42
13. Mon.	8:54	8.4	9:06	7.4	2:42	3:24
14. Tues.	9:36	8.3	9:48	7.1	3:24	4:12
15. Wed.	10:24	8.1	10:36	6.8	4:12	5:00
16. Thurs.	11:18	7.8	11:36	6.5	5:00	5:54
17. Fri.	. . .	.	12:24	7.5	6:00	7:06
18. Sat.	12:42	6.4	1:36	7.3	7:12	8:12
19. Sun.	2:00	6.4	2:54	7.3	8:30	9:24
20. Mon.	3:18	6.7	4:06	7.4	9:42	10:18
21. Tues.	4:30	7.2	5:06	7.6	10:42	11:12
22. Wed.	5:30	7.7	6:00	7.8	11:30	....
23. Thurs.	6:18	8.2	6:48	7.9	12:00	12:30
24. Fri.	7:06	8.5	7:30	7.8	12:48	1:18
25. Sat.	7:48	8.6	8:06	7.6	1:30	2:06
26. Sun.	8:24	8.6	8:42	7.3	2:18	2:48
27. Mon.	9:00	8.3	9:18	6.9	2:54	3:30
28. Tues.	9:42	8.0	10:00	6.5	3:36	4:12
29. Wed.	10:24	7.6	10:42	6.2	4:18	4:54
30. Thurs.	11:06	7.3	11:24	5.9	4:54	5:36
31. Fri.	11:48	7.0	....	..	5:42	6:24

NOVEMBER, 1969

Day	HIGH WATER A.M.	HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Sat.	12:18	5.7	12:42	6.8	6:36	7:18
2. Sun.	1:12	5.7	1:30	6.6	7:36	8:18
3. Mon.	2:12	5.8	2:30	6.6	8:36	9:12
4. Tues.	3:06	6.1	3:24	6.6	9:36	10:00
5. Wed.	4:06	6.5	4:18	6.8	10:24	10:42
6. Thurs.	4:54	7.0	5:06	7.0	11:12	11:30
7. Fri.	5:42	7.5	5:54	7.1		12:00
8. Sat.	6:24	7.9	6:36	7.3	12:06	12:48
9. Sun.	7:06	8.3	7:18	7.3	12:48	1:36
10. Mon.	7:48	8.5	8:00	7.3	1:36	2:18
11. Tues.	8:36	8.5	8:48	7.1	2:24	3:12
12. Wed.	9:24	8.4	9:36	6.9	3:06	4:00
13. Thurs.	10:12	8.1	11:30	6.7	4:00	4:54
14. Fri.	11:18	7.8	11:36	6.5	4:54	5:48
15. Sat.			12:18	7.4	5:54	6:48
16. Sun.	12:42	6.5	1:30	7.2	7:06	7:54
17. Mon.	1:54	6.6	2:36	7.1	8:18	9:00
18. Tues.	3:00	6.9	3:42	7.0	9:24	9:54
19. Wed.	4:06	7.2	4:42	7.0	10:24	10:48
20. Thurs.	5:06	7.6	5:36	7.0	11:18	11:36
21. Fri.	6:00	7.9	6:24	7.0		12:12
22. Sat.	6:42	8.1	7:06	6.9	12:18	1:00
23. Sun.	7:24	8.1	7:42	6.8	1:06	1:42
24. Mon.	8:00	8.0	8:18	6.5	1:48	2:24
25. Tues.	8:36	7.9	8:54	6.3	2:30	3:06
26. Wed.	9:12	7.6	9:30	6.1	3:06	3:48
27. Thurs.	9:54	7.3	10:12	5.9	3:48	4:24
28. Fri.	10:30	7.0	10:54	5.7	4:30	5:06
29. Sat.	11:18	6.8	11:42	5.7	5:12	5:48
30. Sun.			12:00	6.6	6:00	6:36

To report violations or if you need assistance in the Coastal Area - Call - State Game & Fish Commission Brunswick, Georgia P. O. Box 1097, Phone 265-1552, Savannah 233-2383, Richmond Hill 756-3679

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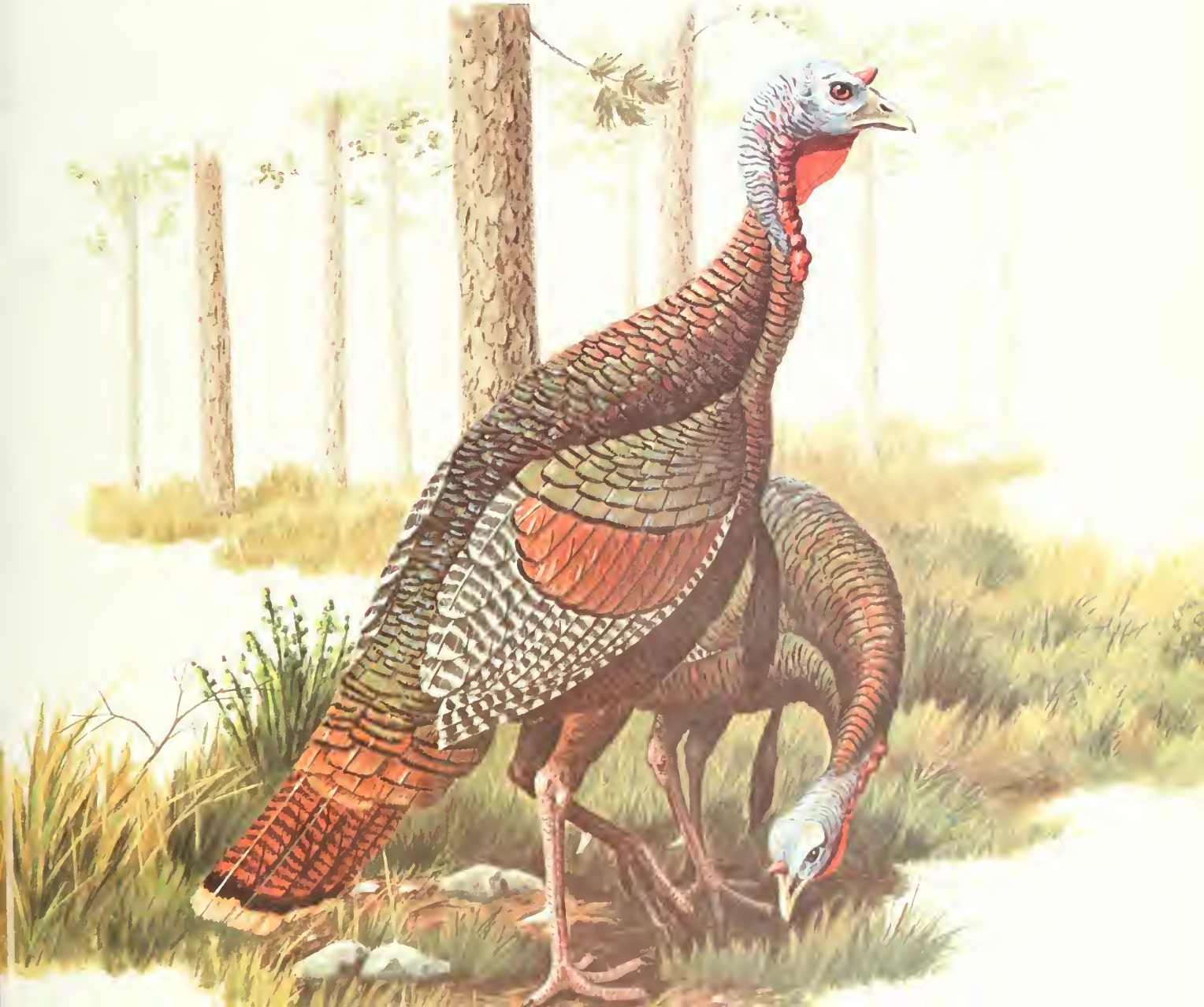

GEORGIA
GAME & FISH

November 1969 Volume IV Number 9

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Deer and Turkeys: Who Pays?

If you were asked how much it's worth to you to have the privilege of deer or turkey hunting in Georgia, what would your answer be?

If your answer is nothing, then chances are you aren't a deer or turkey hunter, and don't want to be one, so your answer is correct. By the same token, if you are not a big game hunter, you probably should not have to pay anything to support these activities of the State Game and Fish Commission—right?

No. You're wrong, and right, at the same time!

Stop and think about it. Just because you don't hunt big game now doesn't mean that you won't in the future, for a number of reasons. Maybe you don't hunt deer or turkeys now because there aren't any (or many) in the county where you live or hunt. Maybe you don't have access to privately owned lands with a huntable population of big game. Maybe quail or rabbit hunting hasn't declined enough yet from the encroachment of forests and thick brush where you hunt to discourage you enough to look for a more rewarding species to hunt with less frustration. Maybe you simply haven't ever tried deer or turkey hunting yet, and really don't know whether you'd like it or not.

If the philosophy was always followed by the State Game and Fish Commission of only spending as much money on a particular species as was put into the State Treasury by hunters who hunted that species or who wanted to, deer would probably still be extinct in Georgia. It's the principle of which comes first, the chicken or the egg, all over again. When there were no or few deer in most areas of Georgia, few hunters hunted them, or wanted to, with an abundance of easier quail hunting readily available at their fingertips. But when quail hunting began declining and deer became plentiful, thanks to the efforts of the State Game and Fish Commission working with the change in habitat brought on by the decline of agriculture and the rise of forest, many ex-quail hunters began switching to deer. For instance, there were probably only a thousand or so deer hunters left in Georgia by 1895 in only 20 counties, while the number jumped to 86,000 in 1962 and to 140,000 in 1967, concurrent with the resurgence of the deer population in all of Georgia's 159 counties to record levels.

But now that a successful restocking and management program has brought back interest in deer hunting to the number two spot in Georgia, ahead of quail and just behind squirrels, the question of whether deer hunters are paying their own way has become even more important.

In any county which has a deer population, wildlife rangers of necessity must spend more of their time than ever before protecting whitetails from game thieves who shoot deer from automobiles at night or who hunt them out of season or illegally with dogs. These problems increase in direct proportion to the numbers of the deer herd.

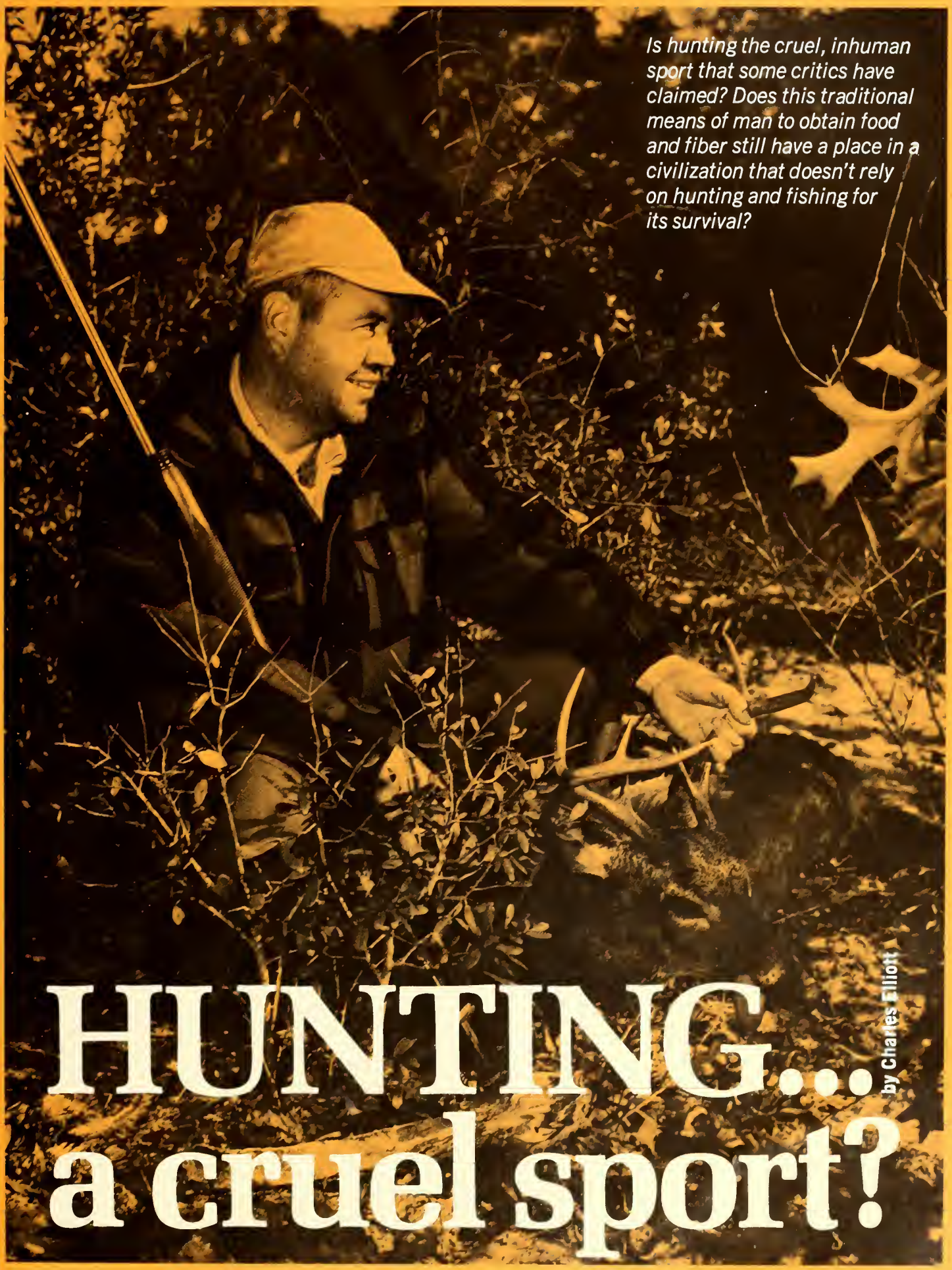
The presence of deer draws in many more hunters into a sparsely populated wooded county in a shorter period of time than is the case with any other species of wildlife. If the county is predominately privately owned land, additional problems arise for landowners, wildlife rangers, and other law enforcement officials caused by inconsiderate hunters who refuse to ask for permission to hunt, who may destroy private property, and who sometimes otherwise

Continued on page 6

ON THE COVER: One of Georgia's most elusive and beautiful game species, the wild turkey. Gobblers display their "beard" of long stiff black hairs hanging from their chest. With the purchase of Sapelo Island, Georgia's turkey management program should make the big birds a major big game species within the next twenty years. Painting by Kent Pendleton.

ON THE BACK COVER: The cause of the annual outbreak of buck fever in Georgia every November, the whitetail buck. This healthy heavyweight would be the prize of a lifetime for almost any hunter, but only a few will bag a trophy as big this month. Color photo by Ted Borg.

PHOTO CREDITS: Ted Borg t. 5, 8, 9, 15r.; Charles Elliott 1, 2, 3; Jim Morrison t. c. 10; Bill Murphy l. 15; Stone Mountain Game Ranch b. 5; Dean Wohlgemuth b. 10, 12, 13, 14.



Is hunting the cruel, inhuman sport that some critics have claimed? Does this traditional means of man to obtain food and fiber still have a place in a civilization that doesn't rely on hunting and fishing for its survival?

HUNTING... a cruel sport?

by Charles Elliott

Recently, articles and editorials have appeared in some of the literature — and illiterature — of this country, advocating that legislation should be initiated to outlaw hunting and fishing on the basis that it is cruel, inhuman and violates all the laws of decency. It is murder, they say, to strike down a defenseless game bird or animal that can't strike back, or to knock a poor old bass or trout in the head after you first impale and exhaust it on that instrument of torture known as a hook.

Naturally, the proponents of this philosophy are entitled to their own views. It may be possible that over the long haul, such a doctrine will come to pass as one of the facts of life. In this unhappy, mixed-up world, who can be sure of anything, anymore?

What they say may or may not be true, but if the subject merits any discussion at all, we might point out one or two facts that perhaps the advocates of the no-kill-for-any-reason laws have overlooked.

First off, at least in one respect humans are similar to wolves, tigers, cougars and coyotes. We are predators, and that means that we prey on the things we eat. This includes the domestic creatures — as poultry, cattle, sheep and pigs. We grow them for that purpose and then slaughter them for our daily ration of bacon and ham, mutton and lamb, steak, and a variety of meat products.

When we do this, we are ending a life. If we pick a pea off the vine, or an ear of corn off its stalk, or a cucumber or tomato, we are in a sense, terminating its existence as such. It is logical that we harvest the surplus numbers of those things before they die naturally, or spoil or rot, saving only the seed that we may create a new surplus the next year.

But forget the beans and potatoes: What would happen if we suddenly decided that to rob any creature of its existence is wrong and that we will no longer harvest the surplus of domestic stock? Cows in the pasture, sheep on the range, and the chickens, turkeys and pigs, turned out to fend for themselves, would do all right for a while. With abundant forage they would continue to multiply, and the over-population would soon eat itself out of house and home — would eventually starve or become so weak that disease would wipe them out.

Again — what would happen? Most of us would soon find out that we do have ribs and that they show rather prominently with the skin so thin over them. Our hunger might lead some of us to become scavengers, like the jackal or the vulture.

So for our own welfare and many other reasons we must harvest the living things of the earth, including the game birds and animals.

The very wild, alert beauty of game species of birds and animals is a result of hunting, both by man and other animal predators. Even though most hunting today is for sport, wildlife adds millions of dollars of food to the diet of Americans.

Because of hunters and their dollars, whitetail deer are more numerous in Georgia today than in pre-colonial days. Wildlife refuges established by them protect millions of song birds and other forms of wildlife, although non-hunters pay little or nothing for wildlife protection.

Hunting is one of man's greatest joys. Just as it is beneficial to humans, it is in many ways necessary for the survival of wildlife as we know it in the face of encroaching environmental pollution which shows little or no regard for the value of wildlife in the modern world

If allowed to go unchecked, many of our species which are now wild, alert and beautiful creatures, multiply and eventually become so numerous that there is not enough food to go around and the clan dies off. Then they serve no useful purpose to man or nature — with the possible exception of the worms, or as decaying matter to help enrich the soil. It must be harvested, just as domestic creatures must be harvested, if a game species is to remain healthy, wild and strong — or even exist.

Our game laws are predicated on the theory of reaping only the surplus, leaving enough so that reproduction will keep each species in balance with its food, cover and other natural conditions.

The taking of this wild harvest furnishes millions of Americans with billions of hours of vigorous, wholesome outdoor living, while they are actually doing a favor to the deer, quail, rabbits, bass, bream and other wild creatures.

One of the justifications upon which the anti-kill sect rests its case is that with guns, bow and arrows and such, we cause much suffering. These people probably do not realize that animals and birds and fish do not have the same conception of life that we as humans do. When we lose someone close to us, the chances are that we grieve over the loss for as long as we live.

Nature has so provided its wild clans with a sense of life and death and destiny that is vastly different from ours. They accept the inevitable. If a hawk catches a quail, or we, as hunters, take one or two out of a covey, the remainder of the birds have no sense of loss or grief. Brooding or pining away would only dull their senses and make them more susceptible to their enemies, and in a world as competitive as theirs, they would not live long. So they accept and immediately forget and continue their own fight for survival.

Red Palmer, of Douglasville, Ga., who manufactures and markets the Cap-Tur Gun, a rifle that shoots hypodermic needles instead of bullets and is used in game management practices all over the world, told me that he had seen enough animals die on the African veldt to know that nature has provided every animal with a built-in system of sedation against shock, and that in its final moments it does not suffer. This is his theory of what happens:

An antelope or gnu or gazelle is pursued by one of the big cats. The prey uses every iota of its speed and strategy and dodging ability to escape. Then when it finally realizes there is no hope and that it is in the final moments of its life, it collapses into a severe state of shock, so that there is no fear or no pain.

Red claims he has enough evidence on this to write a book.

Here is another and even more far-reaching point generally overlooked by those who claim that the sportsman with a gun is a ruthless killer and would wipe out all existing wildlife. Consider this:

Sportsmen alone pay the bill for the protection and increase of all wild creatures, including the song birds. There is no money set up for this vast program out of general appropriation funds. Fees paid for hunting and fishing licenses into the state game departments, and for duck stamps to the federal agencies, makes up the only money available for the enforcement of the regulations, and the establishment of management areas and refuges where birds and animals are under strict and constant protection, and for the support and care of all wildlife, including the songsters.

The hunter is the only American taxpayer subspecies who ever willingly agreed to pay any tax — and even insisted on it. Not only individual sportsmen, but game and conservation clubs all over this nation, suggested and got solidly behind a tax on arms and ammunition, with the proviso that all monies collected from this tax be refunded to the states to set up sanctuaries and wildlife refuges and management lands where the proper protection of creatures would be assured, and for research that would help both the game and non-game birds and animals.

This tax from the hunters — the killers of game, if you will — amounting to millions of dollars each year, has been the salvation of many wildlife species which, without it, might now be vanished from the American scene.

So we see that the picture is not so simple a one as man walking into the woods and gunning down a beautiful bird or animal, or a fisherman on a stream or lake, jabbing a hook into a colorful fish and dragging it unceremoniously from its aquatic home. Hunting and fishing cannot by any stretch of the imagination be cataloged as cruel, inhuman sports, for they touch all facets of wildlife existence, being in many ways necessary to the survival of our wild creatures, just as they are physically, mentally and spiritually beneficial to man himself.

By Dean Wohlgemuth

Forward Look for Turkeys

1 This flock of wild turkeys is small compared to what the early settlers found in Georgia. Increased emphasis on turkey populations by the State Game and Fish Commission may bring back turkeys in good numbers across the state.

2 There's only one way to stock turkeys. The wild birds must be trapped, using these huge nets on feeding areas, then the birds are released where there is good habitat but no turkeys. The Commission plans to intensify stocking in a new long term turkey program similar to the one conducted for the past 20 years on deer.

3 A wary bird and hard to hunt the turkey has an avid group of admirers. Controlled burning of woodlands and an intensive stocking program will probably be the answer to producing better hunting in Georgia.

Some game species are popular with hunters because of their abundance and the ease with which they may be found. Others are popular because of the great challenge they offer the hunter.

In the latter category, nothing could be more true of the wild turkey. Although his following is not vast, those who seek this wary bird are indeed ardent.

Perhaps part of the reason for the fervor of the turkey hunter can be chalked up to the tradition set by the pilgrims on the first Thanksgiving Day . . . but not really. The thrill of outsmarting a wily old gobbler is reason enough for this bird's popularity. Most hunters consider him harder to take than deer. Thus, he's recognized as a "big-game" species.

The major reason that more persons don't hunt turkeys is probably a lack of them. Turkeys are pretty widely scattered in the Peach state. There are huntable populations of turkeys in only 35 of Georgia's 159 counties, but very few other sections really have many turkey.

A species that needs remote surroundings, the turkey finds few areas to his liking. While there are quite a few areas remote enough, most of them do not have habitat suitable enough for the turkey to exist.

When the first settlers arrived in Georgia, there was an immense number of turkeys in the state. Huge flocks of over a hundred birds each were quite a common sight to the settlers.

Hunting pressure, plus a change in habitat has reduced these vast numbers of turkeys to the small population we have today.

Habitat conditions were ideal in those days. There were great areas of virgin forest, made up of hardwoods and longleaf pines. Most of the trees were huge, crowding out most of the smaller saplings, leaving much thinner undergrowth than is now prevalent.

This forest land had a heavy cover of natural bluestem grass, because the Indians frequently burned over the undergrowth, allowing new grass to grow. Actually, this was a byproduct of the burning as far as the Indians were concerned . . . their reason for burning off the undergrowth was to enable them to find chestnuts and other nuts. Nonetheless, they created a turkey paradise.

This utopia will never again exist for the turkey, although in certain parts of the coastal plain section of Georgia, some controlled burning is done in timberlands. Plantation owners have learned that controlled burning is one of the most important methods of managing for quail production. Also, the timber industry uses fire as a management tool, to remove small, useless undergrowth.

Farther north in Georgia, however, there seems to be a "Smokey Bear Complex," says Hubert Handy, chief of game management for the Georgia Game and Fish Commission. General public opinion is against burning of any sort, believing that such actions are detrimental to forestlands. For this reason, dense thickets exist in woodlands of

most of middle and north Georgia . . . conditions which just aren't suited to turkeys.

Every available bit of land is put to pine trees to grow pulpwood. The ground is covered with a blanket of pine needles, thus is unable to grow food for wildlife. Timber is cut frequently, and such rapid rotation of trees does not allow for great size, but rather produces a sterile environment for wildlife, Handy pointed out.

Yet, perhaps there is hope that more such lands will be control burned. Each year, the Tall Timbers Research Station at Tallahassee, Florida, holds a seminar on the use of fire for forest management. The many noted, qualified experts that speak at these seminars gradually are convincing more and more timber managers that the wise use of fire leads to better timber and wildlife production.

It's difficult for many to realize that fire can be carefully controlled and can be beneficial to woodlands yet, says Handy, "the Smokey Bear Complex will have to be changed if we are to have good woodlands management. We'll have to get away from that idea, because it simply is not true. Controlled burning is a tremendous aid in timber and wildlife management."

He said that timber managers are gradually beginning to realize the value of controlled burning and that it must be used if we are to be good stewards of the land, and produce wildlife and timber.

It must be pointed out, however, that if fire or burning is to be beneficial it must be carefully controlled. Fires set carelessly or maliciously do millions of dollars worth of damage to habitat, destroying homes of all wildlife.

Proper burning is done by marking out woodlands in a checker-board pattern, with each block separated with a firebreak to prevent the fire from spreading beyond control. Alternate squares are burned on alternate years. The fire is kept low enough, and under careful control, so as to remove undesirable underbrush without damaging large trees.

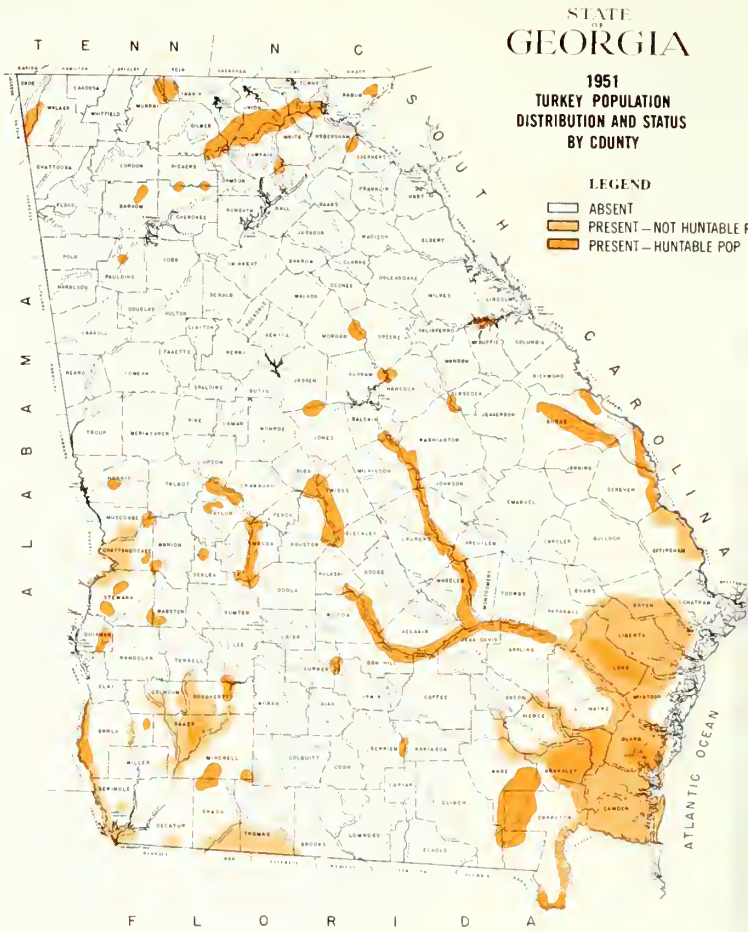
At present, turkey flocks in Georgia are confined to river and creek bottoms with their heavy swamps and some game management areas in North Georgia, or some coastal lowlands and extensive swamplands in South Georgia.

Turkey populations have reached such a low that natural reproduction just isn't sufficient to make up for the annual loss to illegal hunting and natural predation in most of these areas. Unless the average hunter can resist the impulse to shoot any turkey he sees in the woods, season open or not, restoring the big birds will be impossible. By the same token, good support of cases made against turkey poachers by wildlife rangers will be required from local county sheriffs, grand juries, district attorneys, and judges. Unfortunately, laxity on the part of hunters and law enforcement officials in the past has contributed to the decline of turkeys in Georgia.

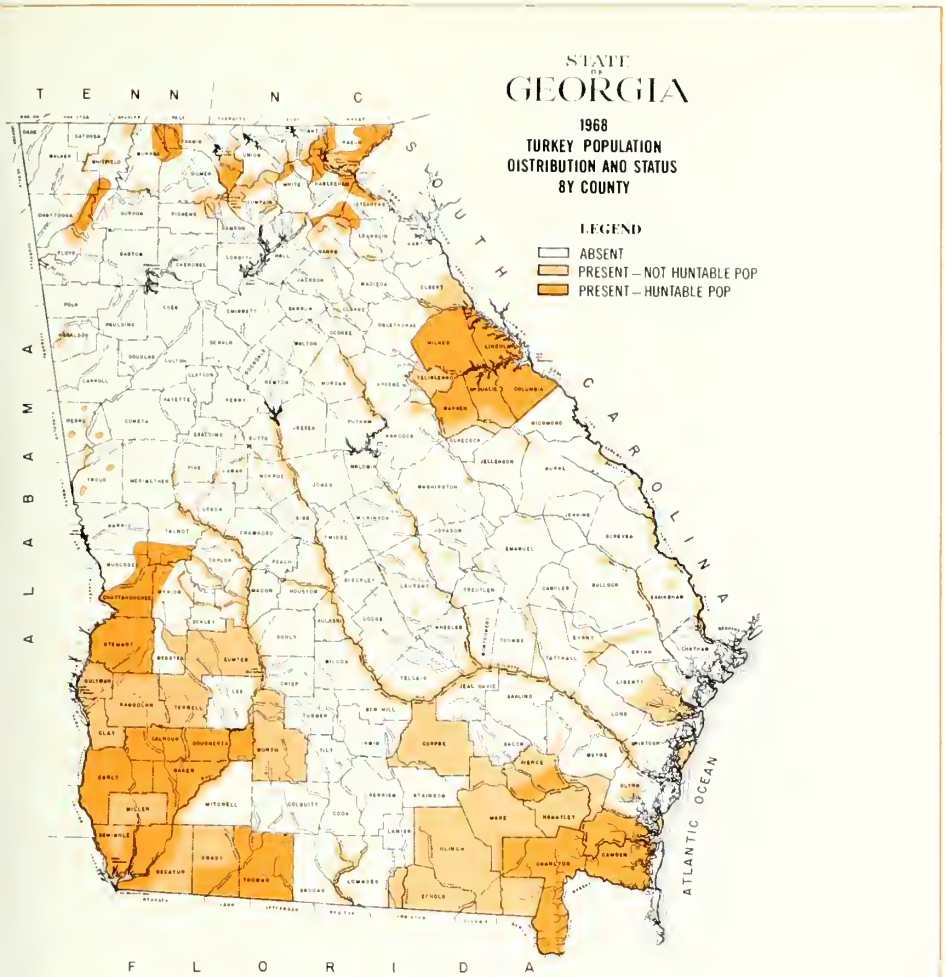
Only in a few sections are there enough turkeys to open for hunting, and these now have an open season. Much of this is on private plantations, but a few management areas are open to the public each year for hunting. Most of this is spring gobbler hunting.

This is a gloomy picture for the Georgia turkey hunter. Yet, the Game and Fish Commission hopes that the future has a brighter glow. Some 20 years ago, the Commission began a concentrated effort to bring back deer herds to the state. In that score of years, growth of the herds has shown remarkable improvement, and now there are deer in every county in the state, with hunting seasons now open each year in 126 of these 159 counties. The most of remaining counties will probably open in a few years.

Now, with the deer situation well in hand, the Commission plans on turning its efforts toward restoring turkey populations to suitable areas around the state.



Little change in the turkey population dur the past 20 years is reflected in these ma showing the distribution of the wary bir Note that there are only slightly more areas w turkey populations in the 1968 map, compared to the areas with turkeys in 19 Then compare these with the 1951 and 19 distribution maps of deer populations page eleven. 20 years of turkey stocki management and protection should make



988 turkey map similar to the 1968 deer map. 's no accident that both deer and turkey opulation patterns correspond closely to rivers nd creeks and their adjacent swamplands, hich provide heavy protective cover from redators, as well as hardwood species of timber hich provide winter food. The construction large reservoirs or the drainage of swamps channelization of streams breaks this valuable travel lane for wildlife.

A giant step in this direction came with the acquisition of Sapelo Island by the Game and Fish Commission. This island wildlife paradise at present has no turkeys, but wild birds will be trapped elsewhere and brought in to establish a good population here. Sapelo will be used as a sort of hatchery area to raise turkeys in the wild for trapping and restocking across the state, in areas which are able to provide proper habitat.

The turkey program will be very similar to that of bringing deer back to Georgia. Turkeys will be stocked, then the counties receiving turkeys will be closed for at least five years . . . . longer if necessary . . . so that the turkeys may reproduce enough to increase their numbers in that county to make a huntable population.

This is the only way in which turkeys can be re-established. Like many other wildlife species, and perhaps more critical than most, the turkey must be introduced as a wild bird. Experiments conducted in the stocking of 10,000 pen raised turkeys in Georgia proved that stocking of such birds was a dead loss. It just isn't possible for pen raised birds to survive in the wild in significant numbers.

Wild turkeys, trapped elsewhere, have been stocked in the areas of Clark Hill, Middle Georgia and the North Georgia mountains, and have produced turkeys in huntable numbers.

Turkey seasons are now held on the Clark Hill Game Management Area and in the Georgia mountains in most years on the Johns Mountain, Blue Ridge, Chestatee, Chattahoochee, Lake Burton and Warwoman game management areas. All are spring gobbler hunts, and all are open to the public.

Many a Georgia hunter has wondered why, when conditions appear to them to be so similar in Florida and Alabama, that Georgia turkey hunting does not more favorably compare.

To the eye uneducated in studying wildlife environment, many things are not visible. There are considerable differences in the habitat, and this is the prime factor in the difference between Georgia and these two neighboring states.

In Florida, for example, there are thousands of acres of savannahs with the low grasslands of the type that existed in Georgia when those white settlers first came . . . the kind of conditions that made turkeys abundant here then. Also, there is more oak forest there, especially live oak and water oaks.

In addition, Florida's Game and Fresh Water Fish Commission has a 100,000 acre area which is used strictly for rearing turkeys which are trapped and restocked in various areas of the state. This huge turkey "factory" assures that there will be good turkey stocking supplies.

Alabama has a great deal more land in hardwoods than does Georgia, the kind of timber that produces the desired habitat. Extensive commercial pine forests dominate Georgia's woodlands.

While it is true that these states have more turkeys, it is also true that they have less land on which the public can hunt than in Georgia. This is particularly true in Alabama, where large plantations or lands leased to hunting clubs, have excellent hunting . . . but only to the favored few privileged to hunt them. Georgia has more of its turkey range open to public hunting.

So while Georgia may not have great hunting for turkeys, it does have some, and that in itself is something of a mark of distinction.

Yet, should things go as well for the turkey as they did for the deer, and as well as the Commission hopes, perhaps someday in the not-too-distant future, Georgia outdoorsmen will have top-notch big-game bird hunting available to them.

But don't expect turkeys to be as numerous and widespread as the deer. There is still, and always will be, a good deal less land where the turkey can find a good home.

DON'T SAY NO To Doe Hunting

By Marvin Tye

The first deer I ever killed is etched vividly in my memory. During that season and the two previous seasons I had hunted a total of seven days, seen perhaps fifty does and two bucks, and had not shot at any of these animals. One of the bucks had antlers that had not broken through the skin and thus was an illegal target. The other was too far away to be sure of a killing shot.

Like most hunters, I wanted to bag a big buck. Does were something to be protected for the good of the deer herd, I thought. No true sportsman would shoot one of them. Then my opinions on the matter began to change. Actual experience had shown me that does were much more numerous in the areas where I hunted than bucks. At least they were more easily seen. Wildlife biologists told me that hunting deer of either sex in some instances helped to control the deer herd.

On my first hunt with a bow and arrow in a new area where doe hunting was to be allowed for archers, I was determined to take the first legal deer that offered a good shot. As so often happens in a situation like this, even does were hard to find. On the second morning I spotted three does running by my stand at a distance of about 30 yards. This was not the kind of shot you dream about, but it looked as though it might be the best I would get on that trip, so I picked the largest deer, figured the lead as best I could, drew my bow, took careful aim and released. My arrow penetrated the deer's brain and brought it down on the spot. Quite a bit of luck was involved in that shot, but I felt pretty proud of it, the first I had ever taken at a deer with any weapon in my three year deer hunting career.

That doe provided my family with a lot of choice venison. If it had not been bagged by a legal hunter, the deer might have been killed by poachers or wild dogs and been wasted.

I still prefer to bag a big buck than a doe of any size. In fact, if I had my choice of taking a half dozen does or one trophy-size old buck I would choose the buck without question. If my hunting time is limited though, I welcome the opportunity to take an occasional doe.

What happens when only bucks are hunted? If this situation exists for a long enough period, the available food for the deer will be depleted to the extent that large numbers of deer will be small and disease ridden. The fact that food might be available nearby does not matter. Many studies, some using radio transmitters, have shown that southern

When a controlled number of deer of either sex are hunted, an area will not be stripped of browse. Good habitat and healthy deer are the result.

A heavy-antlered buck like this is the trophy sought by most deer hunters. In areas where deer are numerous, hunting of deer of either sex will match the deer population to the carrying capacity of the land and insure that bucks have enough nourishment to reach this size.

When poachers and free ranging dogs are kept under control, healthy deer of either sex can be found on any area with sufficient natural food.

When too many deer are found on an area, overbrowsing results. Leaves are stripped from the trees as high as the deer can reach.

whitetail deer will not travel for long distances to seek food. Artificially feeding the deer is unfeasible since deer will not eat food that they are not used to eating, and the expense is prohibitive. Once a deer range is damaged, it takes many years to build it back to the point where it will support the number of deer that originally used it.

Studies have shown that it is impossible to keep an expanding deer population healthy by bagging bucks only. This procedure will work for a number of years after deer are stocked in a new area. In fact, the bucks only law was established to protect newly established deer herds.

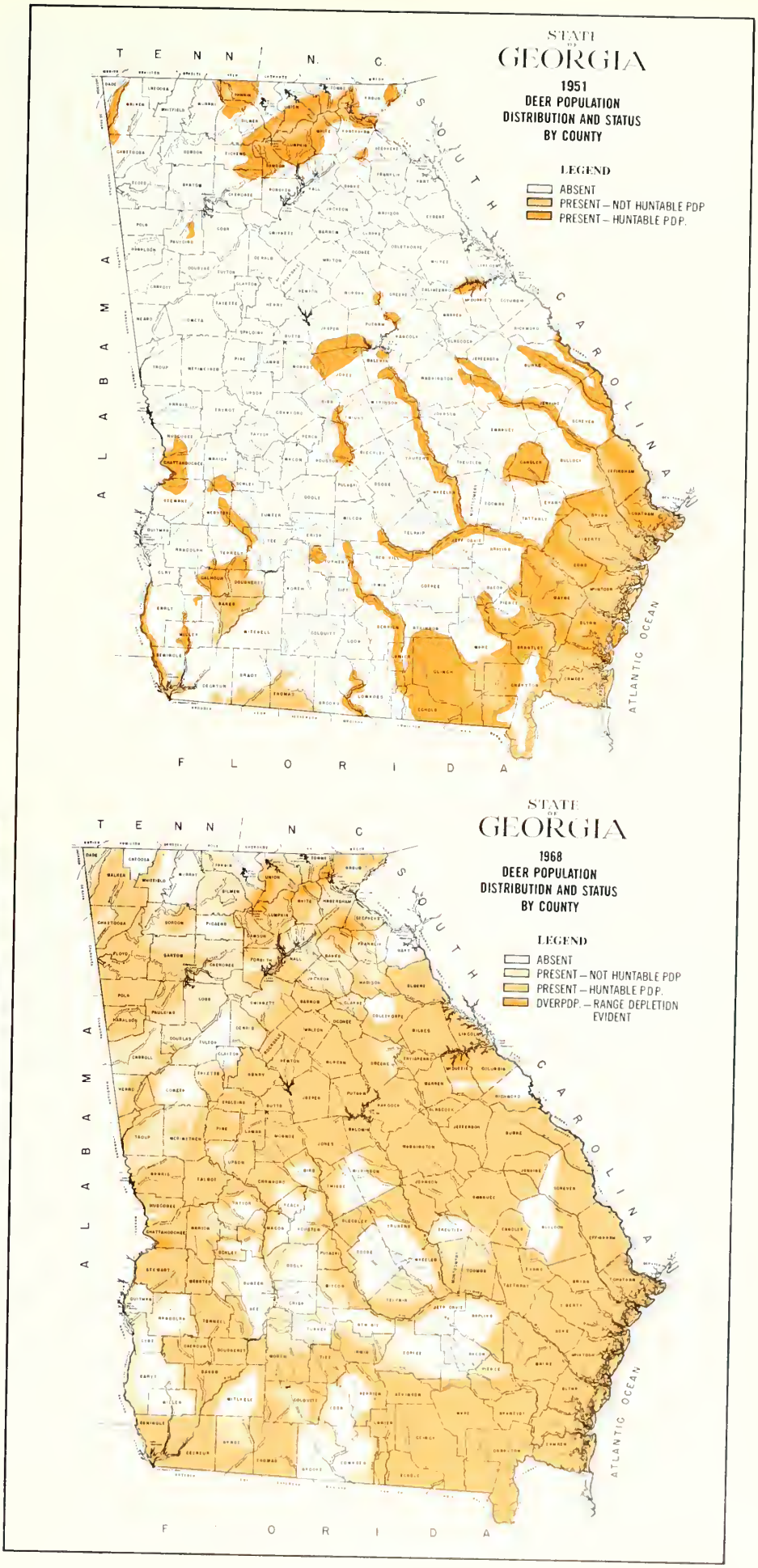
Although this situation was once desirable in most of Georgia, the picture is now changing in many parts of the state. Archers are allowed to take one doe as well as one buck during the bow season October 1-25 in any county where gun hunting is allowed. In many Georgia counties and on a number of wildlife management areas, hunters using firearms are now allowed to take antlerless deer on specified days each season. However, attitudes are hard to change. It is hard for the man who has hunted bucks only for a number of years or all of his life to adjust to the practice of hunting deer of either sex.

If the public follows recommendations of Georgia's trained game biologists, hunting deer of either sex will not be allowed by the State Game and Fich Commission on any area where there are not enough deer to warrant it. On other areas, to protect the range, a certain number of antlerless deer must be taken each year. There are simply not enough deer taken each year to keep the population at a healthy level, since buck only hunting holds the male deer population down while the female population continues to rise.

The ideal situation in game management is to have the surplus deer harvested by hunters. If Georgia's full deer hunting potential could be realized, either sex hunting could be allowed all over the state. The hunter is being cheated out of this by poachers, and free ranging dogs. They are getting his share.

Georgia has great potential as a deer hunting state. The deer population could possibly be doubled and the bag limit and season length increased if poachers and wild dogs could be eliminated. Wildlife rangers are working to keep poachers under control, but these efforts are not all that is needed. The attitude of the people living in areas where poaching and other forms of illegal hunting are practiced must be changed. Only then can sound management techniques be implemented and Georgia's full potential attained.

In just 17 years between surveys by game biologists, both the range and numbers of Georgia's deer herd have expanded fantastically, beginning with the heavy cover and hardwood timber of rivers and swamps, then spreading up and down the streams before filling in the less dense areas between streams or swamps and their protected travel lanes to escape from poachers and dogs. These maps clearly illustrate how drainage of Georgia's swamps and clearing of stream banks would have choked off the rapid expansion of the deer herd into many Georgia counties. When deer were stocked in most counties, they first went to the river swamps, slowly spreading out as their populations increased, making stocking unnecessary in many areas. These wet bottoms in many sections of Georgia's sprawling industrial pine forests provide the only source of hardwood winter mast available to deer, turkeys, squirrels and many other species of wildlife. As a result, they thrive in the river swamps and stream banks. By the same token, the effects of reservoirs that flood river bottoms and game habitats can be seen on the 1951 map.



Does provide sport for those who must limit their hunting time and are not able to stay afield long enough to bag a trophy buck. Bagging a doe requires skillful, accurate shooting and is a challenge, especially for the archer. McDonough native David Almand, now wildlife biologist of the Federal Extension Service in Washington, bagged this doe with his first shot on his first bow hunting trip near Monticello. Most hunters aren't as lucky, or skillful!

ADJUSTMENT f

By Dean Wohlgemuth

You're planning your deer hunting trips for the fall, and you figure on taking in one of the managed hunts. Your eyes come to rest on the back cover of this issue of Game and Fish Magazine, where the schedule of managed hunts is listed.

As you study the list, one area is brought to your attention, the Clark Hill area.

That's a good area, you say. You've heard a lot about Clark Hill from other hunters. Perhaps you'll try it this year.

In looking more closely, you discover that this year there is no "buck-only gun hunt," and you wonder why. Clark Hill has always been one of the state's top managed areas, and has always had a buck hunt. Always, that is, since the area was first opened in 1958.

If you've been to Clark Hill in recent years, you've undoubtedly noticed the browse line . . . the obvious line on the trees, perhaps five or six feet above ground, below which there is little or no foliage. Above that, foliage is plentiful. This indicates there are many deer on the area, and that they have pretty well eaten the available food within their reach.

If you hunted the area, you most likely found there were plenty of deer all right, but most of those you saw were does.

Looking back over the figures of the harvest on Clark Hill, some facts come to light. For the first three years since the area opened, there were no doe hunts, just bucks only were hunted. The number of deer harvested increased steadily each year.

Then, in 1961, some doe hunting was allowed. Still, many more bucks were taken . . . to be specific, 87 bucks as compared to 45 does.

The following year, 1962, produced only 62 bucks, a sharp decline, while a few more does, 49, were taken. In 1963, more does than bucks were harvest, 57 does and 54 bucks. The trend continued . . . In 1964, 78 bucks and 111 does were taken, and in 1965, 80 bucks and 129 does.

The kill on bucks slowly increased, but the increase of does was greater.

The Clark Hill area is unique, in that the herd is more confined than on other areas. A peninsula out into Clark Hill Reservoir, this area is bordered on one side by the lake, and on the other side by a major highway.

In addition, good roads and flat land in the area make it readily accessible to the hunter. Over a period of years of buck-only hunts, the number of bucks as compared to the does declined.

Ronald Parker of Atlanta has his tree stand set high in a pine and wrapped tight for the afternoon hours of the archery hunt on Clark Hill.

The former president of the Georgia Bowhunters Association, Parker checks out room to make a shot from his tree stand during the Clark Hill archery deer hunt last year.

or CLARK HILL

A large part of the reason is because the bucks were hunted much harder than does. Longer seasons are held for buck hunts than doe hunts. This is necessary to conserve the herd.

Yet after a time, the balance in this confined area has become somewhat upset, and there are too few bucks. This, of course, has an effect on the breeding of the deer.

For this reason, to bring back the balance, the State Game and Fish Commission decided against a buck-only hunt this year to restore the balance between male and female. So Clark Hill hunters this year may take either a buck or a doe on two hunts, one an archery hunt Nov. 17-22, and the other a two-day either sex gun hunt, Nov. 24-25. The gun hunt will be limited to 300 hunters, to be determined by a drawing. Information on applying for this hunt is available in the Sportsman's Calendar section of this magazine.

Some bucks, of course, will be harvested this year on the either sex hunts. In fact, it's very likely that there will be as many or even more bucks killed as does.

However, the bucks are most likely to be young button bucks, still too young for breeding. The older bucks, needed for breeding purposes, will be a lot less likely to be taken during such hunts. If these older bucks can be conserved for the next couple of years, then the breeding balance, the ratio of bucks to does, should be restored. Then, too, the harvest will be carefully controlled since only a limited number of hunters will be allowed on the area for the gun hunt, and hunter success is considerably lower on archery hunts than on gun hunts.

There's a second reason for the methods of harvesting deer on Clark Hill this year. All summer long, biologists trapped and marked deer on the area, with tags and tattoos, then released them.

When the hunt is underway, they'll carefully record how many marked deer and how many unmarked deer are taken. Then, using the ratio of marked and unmarked deer, they'll calculate just how many deer there are on the area, since they'll know what percent of the marked deer were killed.

The either sex hunt is limited to two days, rather than the six days normally set for buck hunting, to further control the number of deer to be taken. Since doe and young deer are more easily taken, and since access to the area is good and the herd is confined, the harvest would be too great if more time and more hunters were allowed.

Clark Hill has long been one of the

continued on page 15

Joe Smallwood, right, area manager of Clark Hill Game Management Area, checks the weight on a buck taken during the 1968 archery hunt on that area. Bucks with antlers are getting scarce

Well, you can't hit 'em all. But the author though grinning [illegible] be au[illegible] he [illegible] when he'[illegible] going to get a deer with the b[illegible]

Pa[illegible] [illegible]

This happy hunter, Sam Crisler of Chamblee, got his deer the hard way . . the author heard the wounded deer bounding out of the woods, then saw it plunge into the lake. Seconds later, the hunter dived in after his quarry, and eventually managed to retrieve the animal. The large percentage of females on the Clark Hill area make it advisable to harvest a goodly number of doe deer. Ranger Hugh Ferguson checks in this one.

continued from page 13

state's most popular areas for archery hunters, partly because of the good number of deer . . . and archery hunts are almost always open to either sex hunting, so this is a good means of hunting an area where the ratio of bucks is down. The accessibility of the area is another point the archers favor.

Nearly everyone who has been to Clark Hill has seen a few deer feeding, in broad daylight, on the power line right-of-way, looking from the checking station. Deer tracks all over the area demonstrate that there are plenty of deer there.

And while chances right now of taking a good buck are not really bad, a couple years of adjusting the deer herd is very probably going to increase those chances.

You can bet that the Clark Hill area still has a good future ahead of it as one of the state's most popular deer hunting areas!

Not just grown-ups enjoy Game & Fish...

GIVE YOUR KIDS A BREAK!

Make checks payable to
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One year $1.00, three years $2.50

Sportsmen Speak...

Letters will be subject to standard editing and must bear the writer's name and address. Short letters will be given preference. Occasionally, when there is valid reason, the writer's name may be omitted upon request.

TROUT STAMP

Please register my approval for the purchase of a $2.00 trout stamp and the elimination of the $1.00 per day fee collected by the Commission on managed trout streams as suggested by Commissioner Bagby.

Dan Strobins
Carrollton, Ga.

THANKS

I would like to say a few words about **Georgia Game and Fish.** To those of us who have moved to Georgia in the last three or four years, this magazine has been a great help.

I am especially interested in the strong fight you have made to keep our tidelands free from slime and also the Piedmont timber dam as well as the channelization of some rivers.

Keep it up and be sure many of us are with you.

W. R. Peavy
Warner Robins, Georgia

DEER

I have enjoyed reading **Game and Fish** for three years and I will continue to read them as long as I live in Georgia. Please keep up the good work.

I would like to see more articles on deer and how to prepare them after the kill. If I ever killed one, I'm sure I couldn't clean him correctly.

Jim Causey
Savannah, Georgia

The free publication "Field Dressing A Deer" can be obtained on request from the State Game and Fish Commission, 270 Washington St., S.W., Atlanta, Ga. 30334.

SUNDAY HUNTING

I think the Sunday Hunting Law is unfair, as all hunters buy licenses to hunt, but only bow and arrow hunters are allowed to hunt on Sunday in Georgia. It's not right. Either all types of hunting should be closed down on Sunday, or the gun hunters should be allowed to hunt with the bow hunters.

Most hunters work all week and their only day off is on Sunday, and a lot of them may be like me. They would like to hunt with a bow, but can't hit the side of a barn with one. Failing eyesight is another drawback. In my case I do good to hit with a rifle.

You may print this statement in "Sportsmen Speak" in your magazine if you like.

I would like to hear comments from other sportsmen on this subject.

Let's hear it.

L. Winburn
Monticello, Georgia

Georgia's 19th century Blue Law on Sunday hunting was omitted from the 1969 revision of the State Criminal Code. It made hunting with "gun or dog" illegal on Sunday, but didn't cover bow hunting, a fairly recent (but ancient) sport in Georgia. However, the General Assembly at this year's session also passed a law making firing a gun on Sunday illegal except for law enforcement officers, self defense, and firing on an authorized firing range. This has the effect of permitting bow and arrow hunting and hunting with dog, and even of carrying a gun on Sunday, until it is fired. Like the old Sunday hunting law, it is anticipated that many grand juries will refuse to prosecute cases under the Sunday law, although many will. Before going hunting in a strange county, it's a good idea to check with the sheriff about the local situation.

ALCOVY PROJECT GETS FURTHER STUDY

The controversial proposed Alcovy River Watershed Projects will get further study from federal and state conservation agencies.

In a meeting at Athens, the heads of the three agencies most directly involved agreed to create a special task force to conduct the study, composed of representatives from interested bureaus of the U. S. Department of the Interior, the State Game and Fish Commission, and the Soil Conservation Service of the U. S. Department of Agriculture.

"One of the principal items of discussion in this conference had to do with possible damages to fish and wildlife and other natural resource values in the project area if the current plans envisioned in the project proposal were to be implemented," read a joint statement released after the meeting.

Representing the Soil Conservation Service at the meeting was C. W. Chapman, State Conservationist of the SCS, and his assistant, A. D. Searcy. The Bureau of Sport Fisheries and Wildlife and other Interior Department agencies were represented by C. Edward Carlson, regional director of the Bureau. Game and Fish Commission Director George T. Bagby and Assistant Director Jack Crockford represented their agency.

The Athens meeting resulted from objections to the Alcovy Projects and their possible effects on Lake Jackson and scenic and natural values of the Alcovy itself made by the U. S. Interior Department to the existing plans, which had earlier been protested by several Georgia conservation groups and agencies.

Agreeing to the Interior Department request for more study of the Project plans before asking for congressional approval, SCS Director Kenneth Grant wrote the Interior Department: "We feel that your recommendation for a reevaluation is a reasonable one. Accordingly, we are ready to take the leadership in a reevaluation which would seek to determine:

(1) Those areas which the Georgia Game and Fish Commission and the Bureau of Sport Fisheries and Wildlife believe must be preserved.

(2) Necessary modifications of the project plans to accomplish such preservation.

(3) The effect of such modifications on the feasibility of the plans, particularly on the level of flood protection and benefit-cost ratios.

(4) The acceptability of such modifications to concerned interests, particularly the sponsoring local organizations."

Any subsequent modifications of the plan will be presented to the sponsoring organizations for consideration.

—Jim Morrison

Shoals of the Alcovy River

COMMISSIONERS REAPPOINTED

Governor Lester Maddox has reappointed two veteran members of the State Game and Fish Commission to new seven year terms.

Maddox administered the oath of office to Leonard Bassford of Augusta, left, and Jimmie Williamson of Darien, center.

Bassford represents the 10th Congressional District on the Commission. The owner of an Augusta textile by products company, Bassford served as chairman of the Commission in 1954.

Williamson represents the six coastal Georgia counties on the Commission. A timber dealer, he is also a past mayor of Darien and a former legislative aide of Governor Ernest Vandiver.

Both men are avid hunters and fishermen and are well known in their districts.

JASPER DEER FESTIVAL SET

Jasper County's third annual Deer Festival is set for Nov. 8, and Monticello-Jasper Jaycees are hard at it in preparing for the big day.

Two top prizes to be awarded that day will be for the largest rack and for the heaviest deer killed in Jasper County. The biggest rack must be taken during the first week of the deer season, which opens in Jasper County Nov. 1. The heaviest deer may be taken during archery season as well, which is Oct. 1 through 25. A prize will be given for the heaviest buck and the heaviest doe during bow season, and another prize for the heaviest buck during the first week of the gun season.

Other prizes include: the longest beard grown during the week; the hunter who travels farthest during that week from his residence to hunt in Jasper County; and for the youngest hunter to take a deer during the first week of season.

Other prizes, to be given in a drawing, include a Winchester Model 100 rifle, .308 caliber; an Oldtime hunting knife; electric thermal socks; and a camouflage suit.

A parade is planned, with several school bands, to kick off the day's festivities. A number of displays will be erected on Monticello's town square. A Western music program is scheduled for 10 a.m., and a barbecued chicken dinner will be served, beginning at 11:30 a.m.

A noon program will include a guest speaker, announcement of prize winners and crowning of the festival queen. More music is scheduled for 3 p.m. Other special entertainment is in the planning stages.

Jasper County has thousands of acres of land open for hunting, including 20,000 acres of Oconee National Forest lands which are open to the public. Also, some 10,000 acres of Georgia Kraft Co. timber lands will be open to the public upon request of permission to hunt.

Hunters are reminded by the State Game and Fish Commission that they must obtain permission of landowners before hunting on private property. All hunting laws and regulations will be strictly enforced.

Permission to hunt on Georgia Kraft land should be obtained from the area manager of each of the company's 42 areas in the state. A list of these managers and their addresses may be obtained from H. E. Horney, Georgia Kraft Co., P. O. Box 1551, Rome, Ga.

—Dean Wohlgemuth

outrage the local community.

An equal problem is that of the legitimate, law-abiding sportsman finding a place to hunt where he will be welcome and will have a good opportunity for successful hunting. With the increase of landless sportsmen living in urban areas with more leisure time to hunt and more money to spend on recreation, this problem will mushroom. Its effects can already be seen all too clearly in the highly populated and industrialized Northern states, where the demand for hunting has exceeded the supply of public hunting land many years ago.

What is the answer to these complex problems of more deer and more deer hunters, and less hunting land open to the public?

The common answer is simply . . . money.

Money so that the State Game and Fish Commission can provide the public with more places to deer hunt. Money so the Commission can afford to raise turkeys on Sapelo Island and to stock them in suitable areas all over Georgia as deer have been stocked in the last 20 years. Money so additional wildlife rangers can be hired to protect deer and property owners from two and four legged predators. Money to hire game biologists to help the state and the federal government, timber companies, and private landowners more effectively manage deer and turkey habitat, and to unlock the hidden secrets of deer reproduction and harvest through hunting by the use of research projects. Money to publish maps of hunting areas, and articles on when, where, and how to hunt big game species.

How much money? That depends on how much improvement you want in big game programs, but if 140,000 licensed deer hunters in the 1967 season had purchased the $5.00 deer stamp proposed in the House Bill 833 approved by the House Game and Fish Committee at the last session of the General Assembly, approximately $700,000 would be available for new big game programs. If all or a major part of this money were placed into matching fund federal aid programs that provide three dollars of federal money for every dollar of state money, this amount could provide a whopping windfall for Georgia big game hunters of up to two million dollars a year or twice the purchase price of Sapelo Island! At the same time, money paid by non-deer hunters and fishermen now would be freed for projects of more direct benefit to them. Most of the Western and Northern states already have big game stamps.

At the moment, an interim study committee of the Georgia House chaired by Representative Howard Rainey of Cordele is looking into the possibilities of passing the deer stamp and a trout stamp into law at the January session of the General Assembly. The proposal has already been endorsed by Game and Fish Commission Director George T. Bagby, who has made a strong case for putting some money muscle into Georgia's wildlife conservation program. Now it's up to Georgia's big game hunters to decide. How much does your hunting mean to you?—J. M.

Sportsman's Calendar

SEASONS OPENING THIS MONTH

BEAR

Season—Nov. 1, 1969 through Jan. 3, 1970 in Brantley, Charlton, Clinch, Echols, and Ware counties.

BRANT

Season—Nov. 17, 1969 through Jan 25, 1970.
Bag Limit—6 Daily, possession limit 6. No goose season this year.

DEER

Season—Oct. 15 or Nov. 1 through Nov. 15, 22, 29, 1969 or Jan. 3, 1970 or Nov. 1, 28 and 29, Dec. 26 and 27, 1969, depending on area regulations.
Write for free copy.

DUCKS, MERGANSERS AND COOTS

Season—Nov. 20, 1969 through Jan. 15, 1970.
Bag Limit—Ducks: 3 Daily, including no more than 2 wood ducks, 1 canvasback, or 1 redhead, 1 black duck, and 3 mallards. Possession limit 6, including no more than 4 wood ducks, 1 canvasback or 1 redhead, 2 black ducks, and 6 mallards. Mergansers: 5 Daily, including no more than 1 hooded merganser; possession limit 10, including no more than 2 hooded mergansers. Coots: 10 Daily, possession limit 20.

GROUSE, RUFFED

Season—Nov. 20, 1969 through Feb. 28, 1970.
Bag Limit—3 Daily, possession limit 6.

MARSH HEN

Season—Sept. 20, 1969 through Nov. 28, 1969.
Bag Limit—15 Daily, possession limit 30.

OPOSSUM

Early Season—Sept. 27, 1969 through Jan. 24, 1970 in Coweta County only.
Regular Season—Oct. 18, 1969 through Feb. 28, 1970.
Bag Limit—None.

QUAIL

Season—November 20, 1969 through Feb. 28, 1970.
Bag Limit—12 daily, possession limit, 36.

RABBITS

N. Ga. Season—Nov. 15, 1969 through Jan. 31, 1970.
N. Ga. Bag Limit—5 daily.
S. Ga. Season—Nov. 20, 1969 through Feb. 28, 1970.
S. Ga. Bag Limit—10 daily.

RACCOON

N. Ga. Season—Oct. 18, 1969 through Feb. 28, 1970.
Bag Limit—One (1) per person per night.

SQUIRREL

Season—Oct. 15, 1969 through Feb. 28, 1970.

TURKEY

S. W. Ga. Season—Nov. 20, 1969 through Feb. 28, 1970 in Baker, Calhoun, Decatur, Dougherty, Early, Grady, Miller, Mitchell, Seminole, and Thomas counties.
S. W. Ga. Bag Limit—Two (2) per season.

MANAGED DEER HUNT SCHEDULE

PRIMITIVE WEAPONS

Dates	*Areas*
Nov. 10-15	Suwanoochee (Either Sex)
Nov. 21-22	Chickasawhatchee (Either Sex)

ARCHERY (EITHER SEX)

Dates	*Areas*
Nov. 17-22	Clark Hill
Dec. 1-6	Allatoona
Dec. 15-20	Bullard Creek

BUCK ONLY

Dates	*Areas*
In Season	Altamaha and Lake Seminole
Oct. 15-Jan. 3	Brunswick Pulp and Paper Company (Special regulations apply to each tract of this area)
Nov. 17-22	Arabia Bay
Nov. 24, 25, 26	Allatoona (QH 500)
Nov. 24-28	Cedar Creek Piedmont Exp. Station
Nov. 24-29	Blue Ridge, Bullard Creek, Chattahoochee, Chestatee, Coleman River, John's Mt., Lake Burton, Lake Russell, Oaky Woods, Swallow Creek, Warwoman
Dec. 1-6	Waycross State Forest
Dec. 5-6, 19-20	Chickasawhatchee (QH 300 each 2 days)
Dec. 15-19	Suwanoochee (permit required, no fee)

ANTLERLESS ONLY

Dates	*Areas*
Dec. 29-30	Cedar Creek (QH 1,000)
Dec. 30	Piedmont Experiment Station (QH 400)

EITHER SEX

Dates	*Areas*
Nov. 24-25	Clark Hill (QH 300)
Dec. 6	Blue Ridge (QH 600), Chattahoochee (QH 500), Coleman River (QH 300), Lake Russell (QH 500)
Dec. 20	Suwannoochee
Dec. 29	Lake Burton (QH 300)

For details see the booklet "Georgia Game Management Areas" available at no charge from the State Game & Fish Commission.

QUOTA HUNTS PERMITS

On all areas with a quota hunt (QH), the participants in hunts limited to a certain number of hunters will be determined by a drawing held at the Atlanta office on November 14, 1969. Participants will be drawn from all applications received in the

Atlanta office of the State Game and Fish Commission bearing post marks from November 3 through November 8, 1969. Only applications which include the $5 permit fee for each applicant by check or money order will be accepted and no more than 5 persons may apply as a group. Only one member from a group need apply. If other members of the group apply, all members of the group will be disqualified. All names drawn are final and no refund will be is-issued to those persons whose names are drawn. Those persons whose names are not drawn for the hunt will have their $5 fee refunded. A person can only make application for one of the quota hunts. Any person who makes more than one application will be disqualified from all area hunts.

Hunters must buy their appropriate State hunting license before buying a permit for a hunt. Hunting licenses are not sold at the checking stations or by wildlife rangers, but must be obtained from one of the more than 2,000 license dealers throughout the state.

SMALL GAME MANAGED HUNTS SCHEDULE

(For detailed information of each individual area, write the State Game and Fish Commission, 270 Washington St., S.W.) No permits required, except Butler Island ducks.

DATES	*AREAS*	*SPECIES*
Reg. Season	Lake Seminole, Whitesburg, Allatoona, Altamaha (except Butler Island), Cohutta, Grand Bay, Brunswick Pulp and Paper Co. (except during dog deer hunts)	All (except raccoons)
Nov. 20-Jan. 15 Sat. only	Altamaha (Butler Island)	Waterfowl and Dove
Dec. 8-Feb. 28 Fri. & Sat.	Lake Russell	All except Raccoons
Dec. 12-Feb. 28 Fri. & Sat.	Swallow Creek Coleman River	Grouse, Squirrel, Rabbit
Dec. 12-13, 19-20 Jan. 2-3	Chestatee	Squirrel Grouse
Dec. 12-13, 19-20 Jan. 16-17 Feb. 6-7	Lake Burton	Squirrel, Grouse
Dec. 3-24 Jan. 3-31 Wed. & Sat.	Piedmont Exp. Sta.	Quail, Squirrel, Rabbit, Doves (In Season)
Dec. 3, 6, 10, 13, 17, 20, 24 Jan. 3, 7, 10, 14, 17, 21, 24, 28, 31 Wed. & Sat.	Cedar Creek	Quail, Squirrel, Rabbit, Doves, Ducks (In season)
Dec. 12-13, 19-20 Jan. 9-10.	Chattahoochee	Grouse, Squirrel, Rabbit
Dec. 3, 10, 17, 24, 31 Jan. 3, 7, 10, 14, 17, 21, 24, 25, 31	Bullard Creek	Quail, Squirrel, Rabbit, Dove, & Snipe (In Season)
Nov. 24-29	Suwanoochee	Squirrel, Quail, Rabbit
Dec. 12-13, 19-20 Jan. 2-3	Blue Ridge	Grouse, Squirrel
Nov. 24-29	Arabia Bay	Quail, Squirrel, Rabbit
Dec. 3-24 Jan. 3-31 Wed. & Sat. only	Oaky Woods	Quail, Squirrel, Rabbit
Dec. 10-24 Jan. 3-31 Wed. & Sat.	Clark Hill	Quail, Squirrel, Rabbit, Doves Ducks (In season))
Dec. 12-13, 19-20	Warwoman	Grouse, Squirrel
Jan. 5-10	Alapaha	All (In season)
Nov. 27, 28, 29 Dec. 11, 12, 13	Waycross State Forest	Quail, Squirrel, Rabbit

ALTAMAHA WATERFOWL AREA (DARIEN)

Butler Island Managed Blind Duck Hunts: Saturdays only, Nov. 20, 1969 through Jan. 15, 1970. Hunting hours sunrise to 12 noon, E.S.T. After Nov. 1, applications to hunts not filled in the October drawing will be accepted on a first come, first served basis. For information on which hunts are filled, call the State Game and Fish Commission at Brunswick, area code 912, 265-1552.

All letters of application must specify the date requested with a second choice if desired in the event the first date is filled. All applicants must enclose a fee of $5 per day per person in check or money order payable to the Georgia Game and Fish Commission. Applications should be addressed to P. O. Box 1097, Brunswick, Ga.

BLACKBEARD NATIONAL WILDLIFE REFUGE

Archery hunt for deer; either sex; bag limit—2 deer: Nov. 26-29, 1969; Dec. 30, 1969-January 2, 1970. Raccoons may also be taken on the above hunt periods. Applications for the Nov. hunt must be made by Nov. 19, and for the Dec. hunt by Dec. 22. Write to the Refuge Manager, Savannah National Wildlife Refuge, Rt. 1, Hardeeville, S. C. 29927.

SEASONS OPENING NEXT MONTH

DOVES

Season—Dec. 6, 1969 through January 15, 1970.

Bag Limit—18 daily, 36 in possession.

TIDE TABLE

NOV.-DEC. 1969

GEORGIA COASTAL WATERS

NOVEMBER, 1969

	HIGH WATER				LOW WATER	
Day	A.M.	HT.	P.M.	HT.	A.M.	P.M.
1. Sat.	12:18	5.7	12:42	6.8	6:36	7:18
2. Sun.	1:12	5.7	1:30	6.6	7:36	8:18
3. Mon.	2:12	5.8	2:30	6.6	8:36	9:12
4. Tues.	3:06	6.1	3:24	6.6	9:36	10:00
5. Wed.	4:06	6.5	4:18	6.8	10:24	10:42
6. Thurs.	4:54	7.0	5:06	7.0	11:12	11:30
7. Fri.	5:42	7.5	5:54	7.1	. . . .	12:00
8. Sat.	6:24	7.9	6:36	7.3	12:06	12:48
9. Sun.	7:06	8.3	7:18	7.3	12:48	1:36
10. Mon.	7:48	8.5	8:00	7.3	1:36	2:18
11. Tues.	8:36	8.5	8:48	7.1	2:24	3:12
12. Wed.	9:24	8.4	9:36	6.9	3:06	4:00
13. Thurs.	10:12	8.1	11:30	6.7	4:00	4:54
14. Fri.	11:18	7.8	11:36	6.5	4:54	5:48
15. Sat.	. .	. .	12:18	7.4	5:54	6:48
16. Sun.	12:42	6.5	1:30	7.2	7:06	7:54
17. Mon.	1:54	6.6	2:36	7.1	8:18	9:00
18. Tues.	3:00	6.9	3:42	7.0	9:24	9:54
19. Wed.	4:06	7.2	4:42	7.0	10:24	10:48
20. Thurs.	5:06	7.6	5:36	7.0	11:18	11:36
21. Fri.	6:00	7.9	6:24	7.0		12:12
22. Sat.	6:42	8.1	7:06	6.9	12:18	1:00
23. Sun.	7:24	8.1	7:42	6.8	1:06	1:42
24. Mon.	8:00	8.0	8:18	6.5	1:48	2:24
25. Tues.	8:36	7.9	8:54	6.3	2:30	3:06
26. Wed.	9:12	7.6	9:30	6.1	3:06	3:48
27. Thurs.	9:54	7.3	10:12	5.9	3:48	4:24
28. Fri.	10:30	7.0	10:54	5.7	4:30	5:06
29. Sat.	11:18	6.8	11:42	5.7	5:12	5:48
30. Sun.	. .	. .	12:00	6.6	6:00	6:36

HOW TO USE THESE TABLES

The calculations are for the outer bar. Find the reading for the desired tide. In the table below find the number of minutes to add to correct for the place you are going to fish or swim. The outer bar calculation, plus this correction, gives the correct reading for the point desired.

Adjust For Daylight Saving Time By Adding One Hour

CORRECTION TABLE

The times given are for Savannah River entrance (Tybee).

	Hrs.	Min.
Savannah High	0	44
Savannah (Low)	*	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabaw Sound	0	05
Vernon View	0	35
Coffee Bluff	0	55
Ogeechee River Bridge	3	50
St. Catherine Sound	0	25
Sapelo Sound	0	00
Brunswick Bar	0	00
St. Simon Pier	0	25
Frederica Bridge	0	50
McKay Bridge	0	50
Brun wick East River	0	50
Turtle River Bridge	0	55
Turtle River, Crispen Is.	1	10
Humpback Bridge	1	00
Jekyll Point	0	30
Jointer Island		55
Hampton River Village Creek Ent.	0	20
Village Fishing Camp	0	45
Taylor Fishing Camp	1	00
Altamaha Fishing Park, Everett, Ga.	4	00
Two-Way Fishing Camp, S. Altamaha	2	00

	Last Quarter	New Moon	First Quarter	Full Moon
NOV.	2	10	17	24
DEC.	31	9	16	23

DECEMBER, 1969

	HIGH WATER				LOW WATER	
Day	A.M.	HT.	P.M.	HT.	A.M.	P.M.
1. Mon.	12:30	5.7	12:48	6.4	6:54	7:30
2. Tues.	1:24	5.8	1:42	6.3	7:54	8:18
3. Wed.	2:18	6.1	2:30	6.3	8:48	9:12
4. Thurs.	3:12	6.4	3:24	6.3	9:48	10:00
5. Fri.	4:06	6.8	4:18	6.4	10:36	10:42
6. Sat.	5:00	7.3	5:18	6.5	11:30	11:30
7. Sun.	5:54	7.7	6:08	6.7	. . .	12:18
8. Mon.	6:42	8.1	6:54	6.8	12:18	1:12
9. Tues.	7:30	8.3	7:48	6.9	1:12	2:06
10. Wed.	8:24	8.3	8:36	6.9	2:06	2:54
11. Thurs.	9:12	8.2	9:30	6.8	3:00	3:48
12. Fri.	10:12	8.0	10:30	6.7	3:54	4:42
13. Sat.	11:12	7.6	11:30	6.7	4:48	5:36
14. Sun.	.		12:12	7.3	5:48	6:30
15. Mon.	12:36	6.7	1:12	6.9	6:48	7:30
16. Tues.	1:36	6.7	2:12	6.6	7:54	8:30
17. Wed.	2:36	6.8	3:12	6.4	9:00	9:24
18. Thurs.	3:42	6.9	4:06	6.2	10:00	10:18
19. Fri.	4:36	7.1	5:06	6.1	10:54	11:06
20. Sat.	5:30	7.3	5:54	6.1	11:48	11:54
21. Sun.	6:18	7.4	6:42	6.0		12:36
22. Mon.	7:00	7.4	7:24	6.0	12:36	1:18
23. Tues.	7:42	7.4	8:00	5.9	1:24	2:06
24. Wed.	8:18	7.3	8:36	5.8	2:06	2:48
25. Thurs.	8:54	7.2	9:12	5.8	2:48	3:24
26. Fri.	9:30	7.0	9:48	5.7	3:24	4:00
27. Sat.	10:06	6.8	10:30	5.7	4:06	4:36
28. Sun.	10:42	6.6	11:06	5.7	4:48	5:12
29. Mon.	11:24	6.4	11:54	5.8	5:30	5:54
30. Tues.	.		12:06	6.2	6:12	6:36
31. Wed.	12:42	5.9	12:54	6.1	7:06	7:24

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GEORGIA GAME & FISH

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Sapelo and Wassaw . . . Is That All?

The growing army of Georgians who are alarmed and concerned about the rapid commercial inroads being made on the only sea coast we will ever have can be greatly encouraged by the recent acquisition of Sapelo and Wassaw islands by state and federal wildlife conservation agencies.

Purchased this year by the State Game and Fish Commission and its director, George T. Bagby, after a year of tedious legal negotiations, Sapelo Island is a treasure that's value will increase with each year that passes. Since it was purchased primarily with federal aid funds of hunters, legally earmarked exclusively for wildlife restoration and development purposes only, the chances of beautiful Sapelo ever becoming a cheap Coney Island are slim indeed. In addition to serving as a deer and wild turkey propagation area for restocking suitable areas of Georgia, Sapelo will be a permanent waterfowl refuge, and eventually, one of the finest public hunting areas in Georgia, open on an equal basis to every Georgia sportsman. In the future, other public use of the Commission's portion of the island that does not interfere with its primary purpose will be allowed, especially field trips by groups for educational and research purposes. But perhaps the most important aspect of Sapelo's preservation in its natural state is its 5,000 acres of the most productive marshes in the world, nurturing Georgia's important commercial fishing industry of shrimp, crabs, oysters, and sport fishing for sea trout, channel bass, tarpon, and dozens of other important species.

For many of these same reasons, the purchase of Wassaw Island by the Nature Conservancy Inc., subsequently given free of charge to the U.S. Bureau of Sport Fisheries and Wildlife as a waterfowl and shorebird National Wildlife Refuge, is an almost equally important event. In the case of both Sapelo and Wassaw, Georgians have ample reason to be grateful for the unselfish interest that the former island owners and out of state benefactors have in saving Georgia's green coast forever. Both islands were valued at well over two million dollars but were sold for considerably less to insure their future preservation. Honoring her late husband's wishes that Sapelo be saved, Mrs. R. J. Reynolds sold her 8,500 acres of Sapelo's high ground to the State Game and Fish Commission for $826,165.00, considerably less than half its value to private interests. By the same token, the heirs of the Parsons family sold their interest in Wassaw, valued at almost two and a half million dollars, to the Nature Conservancy of Washington, D. C., for only one million dollars, stipulating that the island be preserved in its virtually untouched natural state, and that a bridge never be built to the island from the mainland. An anonymous out of state benefactor gave the Nature Conservancy 3,000 shares of her IBM stock to finance the sale. Wassaw includes 9,000 acres of highly productive marsh lands and 1,665 acres of virgin forests that support a fair deer population.

Earlier, the Nature Conservancy purchased two smaller Georgia marsh islands, Egg Island and Wolf Island, and leased them to the Bureau of Sport Fisheries and Wildlife. Their purchase insured the preservation of most of the important Altamaha delta of marsh islands that serve as a fer-

Continued on page 13

ON THE COVER: Our Christmas present for Georgia bird dog lovers . . . Atlanta artist Bob Connell's painting of "The Untouchable," the only Georgia dog ever to win the coveted Continental Championship at Quitman, Georgia. Owned by P. J. Blanchard of Mapleton and trained by Bob Lamb of Hollonville, "The Untouchable" was the number two field trial dog in America in 1963.

ON THE BACK COVER: A pair of woodcock swiftly and silently wing away after being flushed from a damp spot near a stream. For more on woodcock hunting, see "Hunt The Long Bills" on page 10 by game biologist Bob Howarth. The painting is from the brush of Kent Pendleton, who did the turkeys on the November cover.

PHOTO CREDITS: Ted Borg 5, 6, 7, 8, 9, 11, 13, 14; John Culler 1, 2r., 3, 4; Leslie Maner 2 l.; Don Pfitzer, U. S. Bureau of Sport Fisheries and Wildlife, 12.

PARADISE ALMOST LOST

By John Culler

There's a bridge being built in Georgia today, a big bridge. It cost $3.6 million, and is being paid for by the people of Chatham County through general obligation bonds. One end of this bridge is in Savannah. The other end, once construction is complete, will rest on Skidaway Island. In between is Johnny Mercer's Moon River, wider than a mile, if you include the accompanying marshlands.

Once completed, the bridge will put the island just minutes away from downtown Savannah, and open hundreds of acres of prime human habitat to the public. When the ribbon is cut on that bridge, Georgia's newest land rush will begin, homes and stores will be built, and a Skidaway Island address will let everyone know a family has arrived.

The bridge is a good investment for Chatham County. The construction activity plus the increase in ad valorem taxes and the new businesses will be good for the local economy. Everyone is happy about the bridge, with the possible exception of a few hunters, and Walt Hall.

The bridge will put Walt and his brothers, William and Howard, out of business. Six years ago the Hall brothers leased 6,000 acres of the island and went into the commercial hunting business. It was a natural from the start. The island, like almost all places wild,

PHOTOS BY AUTHOR

About the Author

John Culler, 31, is the Game and Fish Commission's Coastal Region Information Officer with his office at Savannah. In this job, he writes a weekly column for 35 newspapers in the area, prepares news releases on the coastal region, contributes articles to GEORGIA GAME AND FISH, speaks to civic clubs and other organizations, and edits THE TRAWL, a monthly newsletter for the Georgia commercial fishing industry. This publication has a circulation of 4,000.

Culler is married to the former Linda Laird of Americus and is the father of four children. A native of Macon, he attended Valdosta State College. He worked for six years as a newspaper reporter and photographer and served as outdoor columnist of the COLUMBUS ENQUIRER before joining the Game and Fish Commission in 1968.

He has written articles for SPORTS AFIELD and other magazines. A weekly radio program is among other services that he plans to begin in the Savannah area. An enthusiastic hunter and fisherman, he particularly enjoys training bird dogs, hunting quail and deer and fishing for bass.

free, and untampered with, is a wildlife paradise. Mostly a hardwood forest, there are turkeys, plenty of deer, and squirrels by the thousands. And there is something else that few other places can offer, real wild boar hunting. Walt estimates there are at least 1,000 wild hogs on the island now, even though over 100 boars are killed by Walt's hunters each year.

There have always been wild hogs on Skidaway. "Years before we went into the hunting business, we used to trap and ship wild boars to Tennessee from Skidaway Island," Walt said. "We actually shipped several thousand boars from the island to Tennessee hunting preserves who were advertising Russian boar hunting."

Four years ago Walt released two authenic Russian boars on Skidaway. "I haven't seen them since, but we can tell a difference in the pigs we get now," he smiled. "Maybe it's because they have been wild so long."

In the last three years, the Hall brothers have had eight dogs killed by boars, including one this season. Skidaway boars are big; the average weight of the boars killed is around 225 pounds, and several have gone over 300 pounds.

The hunting camp on the island is, in a word, primitive. All hunters pay the same price, and none are pampered. "We do not operate a hunting preserve on Skidaway. Everything killed here is real wild game," Walt says. "While we will do everything we can to help a hunter get his buck or his boar, he has to be able to put a little effort into it himself. We don't want the type hunter who wants to shoot game released from a pen. We have always attracted hunters who enjoy the sport and everything that goes with it and not just the killing."

Most of the hunters come back year after year once they have been exposed to the natural beauty and simple living on Skidaway. "We do very little advertising, but if a man ever comes here, we can count on him coming back and bringing some of his friends," Walt said.

A hunter is charged for the hog and deer hunting, but if he wants to shoot a mess of squirrels or try the duck ponds, that's thrown in for free. Some come just for the fellowship and to "get away for awhile." One man stayed a week during deer season last year and never took his gun out of its case. After he saw the island all he wanted to do was take pictures with his movie camera. He even went to his deer stand armed only with his camera.

Only about 25 hunters can be accommodated at one time at the camp, but this is as many as it will ever be, Walt says, because they want to see that every hunter has a good chance. To illustrate the point, on one hunt last year 22 hunters killed 17 bucks.

This is the ultra-modern hunting lodge on Skidaway. You can throw a cat through the wall and it's heated with a potbellied stove, but hunters sure hate to return to civilization.

Walt Hall holds the head of a boar killed on the island recently. Those tusks can be effective weapons in close quarters.

With the sun just peeping over the trees, a successful hunter's friends help him carry his buck out to the road so it can be picked up by the truck.

Left: A Skidaway raccoon looks out from his hiding place. The island is the home of many thousands of small animals and birds.

Right: This is the forest floor on Skidaway. Most of the island is "open" forest like this. It's an ideal spot for the bow hunter.

Sea gulls dive for their breakfast in the wake of a shrimp boat crossing "Moon River" to Skidaway. Fishing for sea trout and channel bass near the island is good, thanks to an abundance of undisturbed marshes like those in the background.

Bottom: It's lunch time. Island hunters dig into country sausage, sweet potatoes and venison steaks. No wonder they are so hungry, they haven't had anything to eat since that big breakfast.

The Halls hunt both with and without dogs. Usually, the dogs are used in the mornings, and the hunters still hunt in the afternoons. On boars, most kills are made after the dogs bring the hogs to bay, sometime after a long chase over the roughest part of the island. One big hog was brought to bay recently in a dense palmetto thicket. He couldn't be seen from the outside, and the dogs wouldn't go in after him. Without room to maneuver, a dog can easily be ripped open by three-inch tusks. The boar was left where he was.

The island is an ideal place for the archer. Giant oak limbs actually rest on the ground in many places, offering accessible tree stands everywhere you look. Some hunters have taken boars with the bow, and some have been known to shoot one time and then look for a nearby tree to climb.

Perhaps the best thing about the Hall Brothers' operation is the good old fashioned food served. Some customers have been known to spend more time eating than hunting, and little wonder. On each three-day hunt, the fare always consists of at least one barbecue; a seafood supper including shrimp, crab, and oysters, all taken within a rock's throw of the island; a game supper, with venison, squirrel, coon and maybe duck and possum; plenty of blackeyed peas and old fashioned cornbread, and even venison steaks for breakfast.

"We always like to have a good time when we hunt, and we feel like there are many other things that go into a hunt to make it successful than just killing something," Walt said. "We've had some real wealthy men here to hunt, but before they left they were skinning deer and totin' wood for the fire just like everyone else, and having the time of their lives." Being able to get away from the telephone for awhile is enough to make it worth every penny.

The Halls operate strictly under the rules and regulations of the Georgia Game and Fish Commission. In fact, Walt's father, M. G. Hall, was once a ranger and district chief on the coast for the Commission.

Meanwhile, back to the bridge. It's scheduled to be finished in the summer of 1970, so this will probably be the last year the Halls will be able to operate on Skidaway. They are looking for another piece of land to lease so they can stay in the hunting business, but they know they will never find another Skidaway. If you would like to get in on the island hunts before they are over forever, you can write Walt at Route 3, Box 448-A, Savannah. His phone number is 912-354-7284.

Each time Walt crosses from the mainland to the island, he has to pass by the bridge. "I never look at it," he says, "I just try to pretend it's a bad dream and it will go away when I wake up."

TARGET IN THE TREETOPS

By Marvin Tye

Since the first pioneers settled in Georgia, the squirrel has been a popular target for the State's hunters. The early muzzleloading rifles were known as squirrel guns because they were most frequently used on the bushytails.

Then as now, many a young hunter got his first taste of the sport by bagging a few squirrels for the pot. Now the .22 rifle and the shotgun have replaced the antique "squirrel gun" but the target remains the same — an alert resident of the woods and tree tops that requires stalking ability and shooting skill to bag.

The gray squirrel and his relative the fox squirrel are the most popular targets of Georgia hunters. Gray squirrels are most abundant in hardwood forests for two reasons. They eat acorns, hickory nuts, and beech nuts primarily, and they make their homes in hollows in such trees or build nests in them.

Fox squirrels can sometimes be found in mature pine forests, although they are usually more numerous in pecan groves or other hardwood areas.

One of the most effective means of hunting squirrels is to sit quietly near an area where the squirrels are feeding. After being disturbed, they will normally resume feeding in a half hour or so. The hunter can then raise his gun and begin to collect his limit. If the hunter does not move after shooting the first squirrel, he can usually stay in one location and bag a number of squirrels as they continue to feed or resume feeding shortly after each shot.

The most popular weapon for this type of shooting is a .22 rifle. Iron sights work fine, but a scope insures more accurate shooting. If you can hit the squirrel's head, you will kill it quickly and not waste any good meat.

Stalking or still hunting is another popular method of squirrel hunting. The stalker moves through the forests a step at a time, being very careful not to make any unnecessary noise or sudden movements. He walks a little and looks a lot. When he spots a feeding squirrel, he shoots it if it is within range. Otherwise, he quietly slips in for a better shot.

If the foilage is thick or squirrels have been heavily hunted, the hunter may prefer to use a shotgun. Number four, five, or six shot in any gauge shotgun is deadly medicine for squirrels. Running squirrels that would be almost

impossible to bag with a rifle make fair targets for the shotgunner. The .22 rifle is most effective when the hunter uses a dog to tree or locate bushytails.

The squirrel season opened October 15, and will close February 28, 1970. Your best bet for bagging the bushytails will be in South Georgia below the fall line. During the past year a mysterious squirrel migration took place in the North Georgia mountains. During August and September observers noted as many as one dead squirrel per square mile killed by automobile on the state's highways. This contrasted greatly to an average of 4 or 5 per 100 miles during comparable periods. The squirrels seemed to be leaving the mountains in droves and heading for other areas. Scientists cannot say definitely why this happened, but Hubert Handy, Chief of Game Management for the Game and Fish Commission explained the most popular theory.

According to Handy, the squirrel population had built up to a concentration of one per acre, about three times the usual density of one per three acres. This buildup was caused by a high mast crop for several preceeding years. A hard freeze for two consecutive years killed the white oak and red oak acorns and other mast blooms. Squirrels store nuts for future use early in the fall. According to the theory, when nuts began to get scarce, the squirrels began to move out in large numbers to seek more productive habitat.

Leonard Foote of Marietta, the Southeastern representative of the Wildlife Management Institute, expanded a bit on this theory. He said that when large litters are raised during good mast years, the young seek or are driven into marginal territories and establish their own range. This marginal territory may not have as good a mast crop as the original territory. This could cause the young squirrels to move out seeking better habitat. It is assumed that such natural movement coupled with the mass movement found in cases where the mast crop fails could account for a squirrel migration like the one we have just witnessed.

Very little is known about the movements and habits of squirrels as compared to deer and other wildlife species. Mass movements of these animals occur too seldom to form any definite conclusions.

There are some squirrels to be found in the North Georgia mountains, but not nearly as many as there have been in recent years. With good mast crops in the future, the population should build back to high numbers in two to three years or less. Of course, adverse weather conditions and more mast crop failures could delay this.

One thing is certain. The wily bushytail will never be exterminated by hunting as long as wise game management and timber management practices are followed. Get out your old squirrel gun and join in the chase for this excellent game animal. He will be around for many generations to come.

Squirrels feed primarily on acorns and other small nuts. When such food is abundant they will be found in large numbers. When food is scarce, few squirrels will be found in an area. Scientists believe that the mass exodus of squirrels from the North Georgia mountains may have been caused primarily by a lack of food.

The squirrel is the number one target of Georgia hunters. Either a .22 rifle or a shotgun using number 4 to 6 shot will do the job.

NOW THEY'RE BUGGING THE BIRDS

By Dean Wohlgemuth

"Pilot to gunner. Pilot to gunner. We're passing the old hollow log at the edge of the river swamp. I'm going to put down beside the live oak tree in the underbrush."

"Pilot to gunner. That last shot was astern by three feet. You're not leading enough, Charlie."

"Jungle Fowl 197 to control. I'm setting up headquarters in the plum thicket near that small branch just above where it joins the main river. Will move out on patrol in two hours."

The Game and Fish Commission raising chickens? Well, not exactly . . . although considered by some as the ancestor of domestic chickens, the bird is really a wild jungle fowl, originally from India and Burma. Game Biologist Thaggard Colvin, right, is attaching a transistorized sending unit to the bird, just before it is released to find a home in the Georgia wilds. Holding the bird for Colvin is the late H. J. Sewell, who until his death recently, was manager of the Commission's game farm at Bowen Mill Hatchery near Fitzgerald.

Well, now all that is pretty far-fetched, indeed! Those little birds that look like bantam roosters flying around some of the Game and Fish Commission's management areas, may be in radio contact with man, but they're not about to be THAT cooperative!

While radio signals sent out by those little units attached to a collar around the birds' necks will prove beneficial for hunters, the nimrods themselves won't be able to track down the birds.

Biologists, however, will be able to pretty well pinpoint each bird's location and how far, when, and where he moves. Using a receiving unit, the signal will be picked up from two or more points and, by triangulation, the biologists will be able to determine where the birds go after they're released in the woods.

It all goes back to the fact that small game and bird hunting in Georgia is on a slow but steady downhill skid because the croplands that once provided them a haven are now in pine tree production or grassland for cattle grazing. Quail and rabbits no longer have grain fields to provide them food and cover, so their numbers diminish.

And while small game populations decrease, the numbers of persons hunting continues at a rapid increase. The Game and Fish Commission, whose job it is to see that there is enough game available for hunting, must keep a continuous search going for new game, game that will thrive in whatever habitat is available.

Experiments conducted by the Commission over several years indicate that pheasant hunting will probably never become a reality in Georgia. Efforts to stock them seem to have been futile, largely because of a lack of hunter cooperation. Though some reproduction was noted, too many of the gaudy, gorgeous...and delicious...birds were shot illegally, nullifying the Commission's efforts and taking off the annual young birds.

Though highly regretable to fail in any experiment, such experimentation is necessary in order to continue to provide better and more hunting. The fact that pheasants have been tremendously successful in midwestern states proves that such efforts are worthwhile. Georgia learned from its experiments, even those which didn't produce the desired results.

Similarly, a couple years ago Georgia received a few birds called tinamou, from South America, hoping that these birds would provide hunting in woodlands and grasslands. Apparently, these birds, too, are not going to be a success in Georgia. They just couldn't seem to acclimate themselves to our country.

On the other hand, the future looks fairly bright for the jungle fowl, a native of India. Perhaps one of the greatest reasons for this is that the jungle fowl, though he's simply a wild variety of the domestic chicken, never becomes very tame, even when pen-raised. Efforts to stock pen-raised quail and turkey have proven totally unsuccessful, because the birds lack the wildwood wisdom and hardiness to survive once released. Just about any species of pen-raised game birds will probably suffer 70 per cent or higher mortality rate, according to biologist Thaggard Colvin, who is conducting the experiments with radio tracking jungle fowl. Some studies showed that up to 97 per cent of pen-raised quail and turkeys perish in only a few months.

In contrast, the jungle fowl seems to adapt to a free environment readily, and will apparently reproduce in the wild. In addition, the jungle fowl thrives in the woodlands that are replacing the quail habitat.

One bird being released in the Oaky Woods Management Area near Perry needed a helping hand from Ranger Harold Poole, to begin a new adventure in a new land.

Once free from the stocking pen, the jungle fowl takes to the air, seeking any hiding place he can find. Though primarily ground birds, they can be flushed by hunters, providing good wingshooting sport. This bird was released in the Ocmulgee River Swamps near the Commission's Bowen Mill Game Farm at Fitzgerald.

This jungle cock doesn't understand the reasons behind having a radio transmitter for a hitchhiker, but the answers it gives biologists will help the Commission in its program to improve small game hunting in Georgia.

Right: The strange looking hoop is an antenna that helps Colvin trace radio signals from transistors attached to jungle fowl. Taking soundings from specified points, he can tell how far and when jungle fowl move. This information aids in knowing more about the bird, and how heavy a concentration must be stocked to obtain reproduction.

The main problem here is that the jungle fowl scatters too far and wide when released. A few dozen birds released on several hundred acres may spread out so much their chances of getting together during the breeding season apparently are not as good as desired.

To try to understand how much the birds move and how far they go upon release, the Commission has fallen back on a fairly recent method which has been of considerable aid to Georgia in studying deer movements and to other states in studying other game species.

A tiny transistorized sending unit is attached to a collar which is fastened around the bird's neck. A weak, steady signal is sent out, which can be picked up by television-type directional antennas on portable receivers. Signals are read at regular times at regular locations from several points, to determine how far and where the birds move, and the times of day when most movement occurs.

This information will be studied to determine not only the likelihood of success of stocking, but to give a better idea of just how many birds must be stocked in a given area to have enough to start a good flock.

In addition, perhaps it will be determined that birds spend most of their time in certain types of habitat on an area. This may give tips on whether other areas would provide a desirable habitat to the birds.

All the data collected will help the Commission to know, if jungle fowl do increase enough to become huntable, what type of hunting can be done on the birds.

Apparently the jungle fowl doesn't fly a great deal, even though he moves around a lot. He is very good to eat, as can be easily surmised by his close relationship to the tame chicken. His chest muscles are not highly developed, since he uses his legs more than wings, which means there is tender, white meat.

Recently, the Commission has stocked jungle fowl in four locations: in the area of Bowen Mill Fish Hatchery north of Fitzgerald on the Ocmulgee River Swamp, where the Commission's game bird farm is located; at Oaky Woods Game Management Area, just south of Warner Robins; and near Fargo and Waycross, in the area of the Okefenokee Swamp. Two earlier stockings at Lake Seminole and on the Clark Hill Management Area didn't succeed. Of course there are not huntable numbers of the birds at any of the more recent locations as yet, and it very likely will be some time until there are. It may be at least 10 years before a season can be opened for them. This bird is still in the experimental stage, even though Commission biologists continue to become more and more encouraged by the results seen so far. So if you see a red chicken-like bird in the South Georgia woods, don't shoot . . . wait until they're numerous enough to open a season.

It is hoped that the radio experiments will help also to determine whether populations are going up or down, or are stable. There is need to observe the bird closely to find out how he's doing. Studies of him also include calling cock counts which will be compared over several years, to note any increases in numbers.

Work on the jungle fowl began in Georgia in 1962, seven years ago. Last year, the Commission released 700 birds total, at the four sites where releases have been made. During the seven years since the first ones were released, some 1,200 birds have been freed.

All of these birds came from only four pair which the state received initially. During the first couple of years, the birds were all kept in pens and eggs hatched to build up a good stock of birds for breeding purposes. When this point was reached, newly hatched birds were marked for stocking.

The Commission received the first four birds from stock imported from India and Burma through the U. S. Fish and Wildlife Service. Other states to receive birds included Alabama and South Carolina.

A large clutch of eggs helps this bird to reproduce at a good rate. In captivity, they lay 12 to 14 eggs in a nest, though it is not known how many they lay in the wild. They'll bring off one successful nest each year, if possible. Nesting begins in April

Jungle fowl apparently range over a half mile radius. The heaviest concentration of these birds is in the Bowen Mill area, right around where they were born at the State Game Farm. It has been confirmed, said Colvin, that 15 broods have been hatched off in the wild in that vicinity.

It is possible that the hunting season for these birds might be in spring, at least a spring rooster season. Hunting them may be somewhat similar to turkey hunting. It's possible they may be called, or perhaps they'll flush while walking. The jungle fowl is a ground feeding and ground nesting bird. Colvin didn't know, but thought perhaps they may hold for pointing dogs. In India and Burma, he said, the birds are hunted in drives, pretty much a normal method of bird hunting in Europe and Asia.

If the birds now stocked continue to do well, they'll be trapped, and the wild birds will be stocked elsewhere. This should rapidly speed up reproduction in the wild, since the survival of these birds will be much greater than that of pen-reared birds. It is possible that if our birds do better than those of other states, Georgia will share them with other Southeastern states, through a cooperative program. However, they are not available to private individuals, so do not request eggs or birds.

Although the jungle fowl shows some promise at this stage, Colvin feels he dares not get his hopes too high until time has proved the real success of the experimental bird.

Apparently, the birds like shrubbery and low, thick brush. They are seemingly best suited to mixed hardwoods and pines, but do not care a great deal for strictly pine forests.

They eat seeds and insects, and are especially fond of corn, peanuts, and acorns which have been broken open by squirrels. They are scratchers and ground feeders, like their domestic counterparts. Sumac berries are also a favorite food.

The climate of South Georgia should be ideal for them, since it is so much like that of their native India.

The jungle fowl reaches maturity and full size in about 14 weeks, although he can fly in two weeks. Actually, the bird in Georgia is only one of five or more species of jungle fowl. The one we have is known as the red jungle fowl. The jungle fowl is thought to be the ancestor of all modern domestic chickens.

No, the day is not about to come to pass where the hunter can tune in on a portable receiver and find out where the birds are hidden.

Yet, the Commission will be tuned in on jungle fowl, and will follow them around by use of radio waves, to learn better ways of producing better hunting for the Georgia sportsman.

HUNT THE LONGBILLS

By Bob Howarth
Game Biologist

Seldom hunted in Georgia, woodcock are a much more popular game bird in the Northern states where there are few quail to hunt. The long bill is for probing in soft damp earth to catch earthworms and insects.

The American Woodcock is a wonderful game bird with many sporting qualities. He holds very well for a pointing dog and has an erratic flush. Generally, although not always, he makes a whistling sound when flushed.

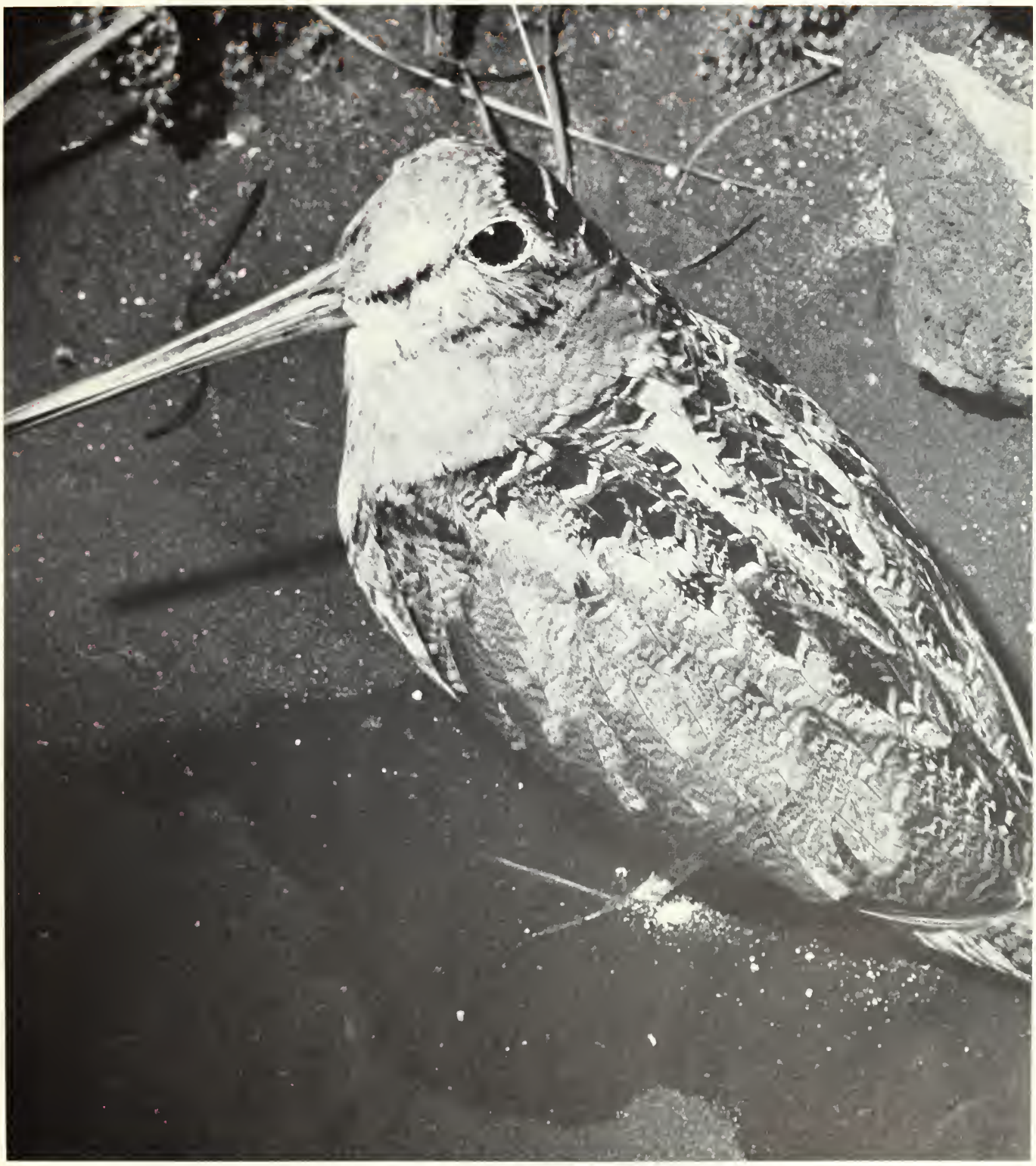
The woodcock does not "covey up" in the fall and winter as our native bobwhite quail do. Woodcock are generally flushed as singles, although occasionally a pair may be flushed together. They are somewhat larger than our native bobwhite quail.

They are most often found in or close to creek swamps, or branches. I have flushed them from around beaver ponds on many occasions. I would say that a hunter could find woodcock along those portions of creek swamp growing up to alder. I have found woodcock while bird hunting up on hardwood ridges from a half to three-quarters of a mile from the nearest stream. One day in December, several years ago, I flushed a pair of woodcocks about a thousand yards north of Winding Stair Gap in Fannin County in the North Georgia mountains.

The woodcock is a migrant bird which arrives in Georgia in "flights" that stay in a limited creek swamp type of habitat before migrating further south. The arrival of migrant flights of woodcock occurs from November until up in February, with the highest numbers being found from mid-December to mid-January. Although considered to be migratory in Georgia, I have flushed single woodcocks from around the edges of beaver ponds in Oconee and Hall County in June and July on several occasions, and they have been observed nesting in Georgia.

I would recommend that a hunter use a good English Setter or pointer to find woodcock, and also to retrieve dead or crippled birds. Sometimes a bird dog shows a dislike for mouthing and retrieving a woodcock. As I mentioned earlier, the woodcock holds very well for a pointing dog and rarely ever runs ahead of the dog. Another breed of pointing dog which might be used to hunt woodcock is the Brittany spaniel.

Woodcock are generally found in medium to heavy cover. I would say that most of the birds bagged are killed within 30 yards of the gun. For this reason, I recommend that a gunner use an improved cylinder barrel on an automatic or pump shotgun. If a hunter has a double barreled gun, I would recommend cylinder bore in one barrel and improved cylinder in the other. I have found number eight shot to be good on woodcock.



The snipe family of birds is classified in the broad group called "shore birds." Wilson's snipe are birds of open areas found near lakes, ponds, and other open water bodies. I have flushed them out of wet pasture areas especially where there has been a large acreage in pasture close to or adjoining a pond.

Snipe flush fairly close, from 15 to 25 yards generally. They have a very erratic flight and offer a sporting traget for the upland game gunner. I would recommend using an automatic or a pump shotgun of 20 gauge or larger with an improved cylinder choke barrel. If a hunter is equipped with a double barrel gun, the choke should be improved cylinder and modified, with number eight or nine shot. I prefer to load an automatic or pump so as to shoot a load of number nines on the first shot, following this with two shells in the magazine loaded with number eight shot.

Hunting snipe without a bird dog is best. From my own personal hunting experience, I have never seen a snipe hold for a pointing dog. If the dog comes too close to the snipe on a cast, frequently the snipe will flush.

If you're looking for something different in wing shooting this winter, why not give these two gamesters a try. You might like what you find out.

Wilson's snipe can be distinguished from woodcock by the white bands on their heads, which run parallel to the snipe's beak and perpendicular on woodcock.

Continued from inside front cover

SAPELO and WASSAW

tile breeding and nursery ground for fish and birds, since most of the other river islands were bought in 1954 by the State Game and Fish Commission as part of the 30,000 acres of land and water of the Altamaha Waterfowl Management area, in addition to a strip of Wolf Island that the Bureau already owned.

Significantly, most of the money being raised for the purchase of these two spots of green marsh by the Nature Conservancy's vivacious Mrs. Jane Yarn of Atlanta, $28,000 for Egg Island and $80,000 for Wolf Island, has so far come from out of state contributors, especially foundations. Hopefully, the examples of Wassaw, Wolf, and Egg islands will inspire Georgians to do their part to save the coastal islands and marshes from unwise development that will destroy their future value as the last unspoiled natural area on the Atlantic coast for Georgians and all the people of the United States.

The fate of the three Georgia islands connected to the shore by causeways, Tybee, St. Simons, and Jekyll, is already decided, just as the future roles of Sapelo, Wassaw, Wolf, Egg, and Blackbeard have recently been determined. Yet to be committed for the future are the important unbridged natural treasures of Cumberland, Ossabaw, and St. Catherines, along with the thousands of acres of marsh and water that connect the Golden Isles to the shore, the living "Goose that lays the Golden Eggs" of the Golden Isles.

Already, the stage has been set for the final battle in the war for Georgia's coast. In a few brief years, perhaps only months, the struggle will be settled, for better or worse.

The time has come when the people of Georgia must decide if they wish to sacrifice the greenest coast of the Atlantic seaboard to the unscrupulous and greedy designs of men who care more for making money in the shortest possible time than they do for the public's best interest over the longest possible period of time. The conflict has already begun in legislative halls and in the private offices of America's and Georgia's largest and most powerful corporations, embroiling the strongest and the weakest elements of the federal, state, county, and city governments that are supposed to represent the interests of all the people, not just the most moneyed portions of them.

While the battles over the future of Georgia's only three remaining unspoiled privately owned islands must be fought separately on their own merits, a common salvation through legal or administrative means must be found for Georgia's invaluable sea bottoms and marshes, the most productive lands of food and recreation in the world. Recently, North Carolina joined a growing list of sea coast states taking stringent measures to protect their marshes from galloping destruction, bit by bit. The North Carolina legislature passed a law requiring private developers and governmental agencies alike to secure a permit from the North Carolina Conservation Department before they may dredge coastal waters or fill in seafood producing marshes. The law gives the Conservation Department ample authority to decide if each application is in the public interest or not, and provides for appeals to a review board of concerned state conservation agencies.

Georgia's marshes are the most productive lands of food and recreation in the world, but without proper controls over piecemeal developments and filling in the future, their continued existence is in question.

A similar law should be passed in Georgia giving such authority to the State Game and Fish Commission, which is now the primary state agency given the legal authority and responsibility for sea food conservation, protection, and development. The Commission already has a nucleus of marine biologists engaged in marine research and management activities, as well as a law enforcement patrol force. It is far better equipped for the role of preserving Georgia's marshes than agencies created primarily for educational or research purposes only. For the same reason, it is more logical to add responsibility for the marshes to the Commission's existing related activities than to Georgia's county or city governments, which lack trained and experienced technical personnel in the marine field. If Georgia's coast is to be effectively preserved as a seafood and recreational area in the future, enforcement of any state laws passed to protect the coast must be administered in all of the six coastal counties with equal vigor and uniform application of the law's provisions, an impossible task for local governments that are already groaning under heavy burdens in fields where they traditionally have exercised primary authority. Most of the coastal states with such laws give marshland responsibility to their saltwater commercial fishing agency. There is no valid reason for Georgia to be different.

House Bill 212, the Marshlands Protection Bill of Brunswick's Representative Reid Harris, is a step forward for Georgia. The original version of the bill is an adequate answer to Georgia's needs, except that it should vest primary responsibility to the State Game and Fish Commission and relegate the board it proposed to create to an appeals board status, while removing provisions relating to local governments. Perhaps equally important, provisions should be made for the preparation of a zoning type plan for the marshes of the entire Georgia coast, identifying important food producting areas that should be permanently preserved, while at the same time identifying marshes of low productivity that could be sacrificed for industrial or residential developments, especially around such existing areas near Brunswick and Savannah.

As passed by the House last year, H.B. 212 was severely weakened, although it represents an improvement over existing Georgia laws. However, most observers feel that the provisions stricken from it to get it out of the House Committee were more important than the addition of a requirement for marsh meddlers to prove their ownership of any tract they propose to destroy. A strong permit bill administered by the State Game and Fish Commission quite possibly would be a fairer solution in the long run for all of the interested parties.

Maybe you're not a millionaire who can sell an island for half price to a state or federal conservation agency, or buy it for a private conservation group to preserve for posterity. But you can write a letter or even a post card to your elected representatives in the General Assembly and the U. S. Congress, giving them the benefit of your views, whatever they are. It's only your coast that is at stake. J.M.

the outdoor world

Game & Fish Seeks Marsh Authority

BRUNSWICK—The State Game and Fish Commission has called on a Senate Interim Committee on House Bill 212, to give the Commission the primary role in protecting Georgia's coastal marshlands.

David Gould, Supervisor of Coastal Fisheries for the Commission, delivered to the Senate Committee a statement by Game and Fish Director George T. Bagby, which said "Since the State Game and Fish Commission is already the legal agency given authority for commerical and sport fisheries enforcement, management and research, we feel that our agency is the logical one to also protect the marshlands which make the other activities necessary and possible."

House Bill 212 was introduced into the legislature during the last session, but failed to gain passage. The Senate Committee is studying the bill toward a vote of the Legislature during the coming session.

HB 212 would require any person or organization first to file an application which would have to be approved before any dredging, draining, or other alteration could be done on coastal marshlands.

The original bill presented during the last session would have established a "Coastal Wetlands Protection Board" which would have governed use of the marshlands. The committee substitute bill now under scrutiny would require that applications be filed only with the political subdivision in which the majority of the land to be affected lies.

The bill resulted from efforts by a multi-million-dollar Oklahoma oil company, the Kerr-McGee Corporation, which attempted a year ago to obtain rights to dredge marshlands in Chatham County, for the purpose of mining phosphate. There was much speculation that a prime reason for the interest in dredging the marshlands was to fill them and create resort subdivisions.

In Bagby's statement, Gould charged that enforcing laws against commercial shrimping on one hand, and allowing an industry or government agency to dredge and fill shrimping nursery areas on the other, was "about as effective as taking an aspirin for cancer."

"Law enforcement and scientific research and development are not enough to conserve Georgia's wonderful marine resources unless we take immediate steps to preserve the habitat which these species of life depend on for their very existence. The present authority of the State Game and Fish Commission to take this vital action is not adequate to achieve this goal," said Gould.

He pointed out that Georgia's marshlands are unique in their rich production of commercial and sport fishing, since many other states have lost productive marshes through industrial and municipal development.

The statement said that the Game and Fish Commission gave full support to the original bill and still feels that this is the best proposal yet advanced in Georgia to save the marshes.

The Commission supports the amended version of the bill, the statement said, because it is a definite improvement over the existing law. However, said Gould, "we feel that it is much weaker than the original version, and that it and the original bill have a number of important flaws" that the Senate Committee should study.

He pointed out that other states have given their conservation agency the authority to protect their marshes, giving Georgia a precedent to follow.

"One of the most important reasons to entrust this vital task to the State Game and Fish Commission rather than to local counties or cities," the statement said, "is simply for the practical reason that these political subdivisions lack the trained technical personnel required to determine the effects of proposed filling and dredging activities on marine resources. A second important consideration is that enforcement of any state law that is enacted be uniform in all of the six Georgia coastal counties, without local variations in the enforcement of the statute."

"The Game and Fish Commission feels that any effort to preserve Georgia's most productive marshlands should be realistic," he said. "We do not believe that industrial development or municipal expansion can or should be called to a halt solely and purely for the purpose of conservation, vital as that is to our future."

The statement suggested zoning certain marshland areas of low productivity for future industrial and municipal expansion, particularly in the areas of Savannah and Brunswick where previous development and water pollution have rendered thousands of acres of little value for seafood production.

Sportsmen Speak...

Letters will be subject to standard editing and must bear the writer's name and address. Short letters will be given preference. Photographs cannot be returned. Letters will not be acknowledged unless the writer requests a reply. Occasionally, when there is valid reason, the writer's name may be omitted upon request.

THANKS

1. We are writing to thank you for including Georgia Education Authorities in the subscription list to the magazine issued by your department.
2. Every one of us enjoys this publication tremendously. We clip all the beautiful illustrations and place them on display in our office.
3. Not only are the illustrations extraordinarily fine, but the articles in the magazine are entertaining and instructive.
4. We thank you for keeping us on the subscription list.

John E. Sims
Director
Georgia Education Authorities
Atlanta, Ga.

STAMP FOR SWIMMING?

I am writing in regard to your article in the September issue of **Georgia Game and Fish** entitled "Georgia Needs a Trout Stamp". The article is a good one and I will not say right now what we need, but we do need something.

I have the greatest respect for our Game and Fish Commission and think they are doing a good job with what they have, up to a point. I personally know some of the game wardens and know they have their hands full and work a 24 hour day. However, before we go into a trout stamp period, I think there should be some designated streams which can only be fished for trout, or at least if trout stamps are sold, they will be purchased by every living person who goes on a trout stream.

Let me give you some examples that are not isolated, nor are they recent. I have been trout fishing the North Georgia mountains for 40 years, before they were ever stocked, I guess. It has always been fine and I have always enjoyed it. But now there are too many people. Most of them are not trout fishermen, but vacationers and campers. I want families to enjoy the great outdoors as much as I do but not at my expense. This past summer it was a swimming hole for kids and grown people. I went to "Wildcat Creek" and it was the same. I went to "Spoilcaine Creek" with my 12 year old. There was supposed to be one special hole there for him. I bought his permit and went to the hole. There was one trout in it and grown people camped all around the hole, fishing through it as if there was no sign there. The point is, I do not enjoy driving 200 to 300 miles to trout fish and find they have turned the streams into swimming holes, so why should I pay $2.00 more for a stamp to get the same thing.

George E. White
Rome, Georgia

Several years ago the State Game and Fish Commission passed a regulation prohibiting swimming in managed trout streams on National Forests, but the regulation was repealed when the U. S. Forest Service objected on the grounds that the Commission had no authority to prohibit it, and that such a ban violated the multiple-use principle of National Forests, which are open to the public for recreational uses other than fishing.

There is no doubt that unless hunters and fishermen stand up for their rights, areas which should be reserved for their activities will be destroyed by casual invaders of the outdoors in ever increasing great numbers who will destroy the very thing they originally sought in nature, without ever realizing what it was.

LADIES' RECORD?

I have something here that might be of interest to you. A picture of Mrs. Jessie A. Cunningham (Mrs. Charles J. Cunningham) along with a largemouth bass weighing in at 12 pounds, 2 ounces, which she caught in a private lake here in Morgan County using a purple 'Big Daddy' Fliptail plastic worm.

You probably saw the picture and write-up in Charlie Salter's column in the **Atlanta**

Journal recently. The fish has been entered in the **Georgia Game & Fish** contest.

As far as we can remember and learn, it is a record catch here in Morgan County for a 'lady' fisherman and we would be very interested to learn just how the catch stands as a record for lady fishermen over the state.

Although there are a good number of lady fishermen here in Morgan County this catch has rejuvenated them all to 'get busy' and wet a line to try to top this catch.

I enjoy the Game & Fish magazine and look forward to every issue. You are doing a great job with the magazine and in my way of thinking it is one of the finest things that has happened for the Georgia sportsmen in a long time.

The fish has been mounted and if ever you are in or through Madison it will be a pleasure to have you stop by to see it and others that are mounted.

Very sincerely,
'Zeke' Biggers
Madison, Ga.

FURRY FISH?

I recently called you to confirm the existence of a "fur bearing" trout, reportedly caught in Lake Superior. Enclosed you will find a picture of this fish. These are the statistics printed on the card mounted under the fish: "Fur Bearing Trout—very rare—caught while trolling off Gros Cap,

near Sault Ste. Marie, District of Algoma. It is believed that the great depth and extreme penetrating coldness of the water in which these fish live, has caused them to grow their dense coat of (usually) white fur."

The fish was mounted by a taxidermist in Sault Ste. Marie.

I fish a little myself and this "fish story" was a little hard for me to swallow also!! Hope you will have as much fun with the picture as I have had showing this to my fellow workers.

Sincerely,
Barbara Gaskins
Atlanta, Ga.

AMMUNITION REGISTRATION

Thank you very much for your editorial in GAME AND FISH, expressing your views relative to the proposed amendments to remove ammunition from the registration provisions of the Gun Control Act of 1968.

Your interest in my bill concerning this subject is greatly appreciated. This bill, and other bills of a similar nature, are currently pending before the House Judiciary Committee with no further action scheduled. I hope that this subject will soon be considered by the Committee for the time has definitely come to remove the limitations placed on our sportsmen, hunters, and businessmen under the provisions of the Act.

BOB MATHIAS
U. S. Congressman
California

DYING SWAMPS?

Now a jet-threat hovers over the Everglades. A 250-million-dollar jetport, which will be the world's largest, is planned for the land just across the Park's northern boundary. This airport would service the superplanes of the 1980's. What size Florida lot will these big birds need? Plans call for 39 square miles.

Everglades National Park, including part of the Florida Keys, the Ten Thousand Islands, and Big Cypress Swamp, the 2,000 square miles of tropical and sub-tropical wilderness, marsh, and semi-aquatic grasslands comprises America's third largest national park. Here are alligator and otter, raccoon, bobcat, and cougar; snowy egret and white and wood ibis; and tropical trees and other plants found nowhere else in the United States.

As a sportsmen and a human being, I can't help but voice my opinion if this park is jeopardized by the wheels of progress. To destroy one of God's masterpieces when it could be avoided is one of the greatest crimes that could ever be commited by mankind.

Harold Scott
Green Bay, Wisconsin

The national furor over the threat to the Everglades Park is encouraging to Georgians struggling to save similar areas in their own state from the wheels of "progress." For instance, Georgia's own unique Okefenokee Swamp still has not been placed under the protection of the National Wilderness Act against road building and other types of encroachment that are now legally possible, in spite of a bill introduced in Congress by U. S. Congressman W. S. Stuckey of Eastman. The Okefenokee Wilderness Bill is still lodged in a House Committee. Only the strenuous efforts of all of Georgia's congressmen and senators will pry it out, if they are interested enough in the Swamp to save it.

TARPON

Please forgive me for being so late sending in this request, but I have just found out some friends of mine, living in Florida, would very much like to have a copy of the August "Game and Fish Magazine." I

wouldn't part with mine, but thought if there were a couple of these still available in Atlanta, you would act as good samaritan and send them to me. I, too, will appreciate this favor.

They are very much interested in the article which appears on pages 1—6 entitled "Tangle with a Tarpon," and I can well imagine why they would be.

My subscription to "Game and Fish" expires with the December issue, so I am taking this opportunity to enclose my check for $1.00 to continue on through 1970.

Sure is fine living on a salt water tidal river like I do—the North Newport River, that is. Between the beautiful birds, quail, small animals and the fish (including oysters, shrimp and crabs), there is never a dull season here.

Thank you for all your courtesy. Your "Game and Fish Magazine" is so interesting and beautifully edited.

Elizabeth R. Kelly
McIntosh, Georgia

TIMELY ARTICLES

Please renew my subscription to your excellent magazine—three years for $2.50. I've enclosed a check for $2.50.

I want to congratulate you on your widely acclaimed publication. The articles are timely and highly informative and the photography is superb.

J. H. Davis
Norcross, Georgia

4-H WORK

Your **Game and Fish** Magazine has been quite valuable to me in my 4-H Wildlife Project work. The articles about game and fish are well written with interesting details and the pictures are lovely. As a Senior 4-Her I am conducting "Wildlife Classes" so I have no trouble finding suitable or reliable program material or pictures. If all boys and girls would read this magazine they would come to know and appreciate our wildlife in Georgia and conservation would not be a problem for future generations.

Donna Ash
Oliver, Georgia

FOX HUNTER

I am enclosing a picture of a new fox chaser and the fox.

I hope to never see the day that fox chasing will be put on the shelf. Many people don't like to hear hounds run. I don't care for any other music, except a good pack of hounds after a fox, not a deer. I don't care to hear that kind of race. Neither do I want anyone to quit playing their music or quit their sport in life.

I am sorry Mr. Todd didn't get his deer. Hope he has better luck next season, and comes home in a better frame of mind.

Our first president, Washington, was a fox chaser. Everybody thought he was a real man.

J. O. Wilburn
St. George, Georgia

TROUT STAMP

I am very much in favor of a trout fish stamp. I would like to see the stamp a requirement for all who fish for trout, both in the management and non-management areas. This would eliminate the need for management area permits. The men who have to be in each area for collection of permits could be utilized in other duties. A trout stamp would provide needed funds to better the trout fishing in Georgia. I am for it 100%.

Kenneth M. Elder
Warner Robins, Ga.

PERMITS FOR SAFETY?

Believe you hit it on the head with the idea of a trout stamp. I hate to see the old creel checker go. It was always a comfort to know somebody will come a looking if you didn't check out. A fellow busted his leg and lay for two days in a creek in the Smokeys. He was nearly gone when they found him—they have used the sign in sign out method since.

Gus Whitfield
Jupiter, Fla.

Sportsman's Calendar

SEASONS

BEAR

Season—Nov. 1, 1969 through Jan. 3, 1970 in Brantley, Charlton, Clinch, Echols, and Ware counties.
Bag Limit—1 per person.
Season—Nov. 17, 1969 through Jan. 25, 1970.

BRANT

Bag Limit—6 Daily, possession limit 6. No goose season this year.

DEER

Season—Oct. 15 or Nov. 1 through Nov. 4, 15, 22, 29, 1969 or Jan. 3, 1970 or Nov. 1, 28 and 29, Dec. 26 and 27, 1969, depending on area regulations.

DUCKS, MERGANSERS AND COOTS

Season—Nov. 20, 1969 through Jan. 15, 1970.
Bag Limit—Ducks: 3 Daily, including no more than 2 wood ducks, 1 canvasback, or 1 redhead, 1 black duck, and 3 mallards. Possession limit 6, including no more than 4 wood ducks, 1 canvasback or 1 redhead, 2 black ducks, and 6 mallards. Mergansers: 5 Daily, including no more than 1 hooded merganser; possession limit 10, including no more than 2 hooded mergansers. Coots: 10 Daily, possession limit 20.

GALLINULES

Season—Nov. 7, 1969 through Jan. 15, 1970.
Bag Limit—15 daily, possession limit 30.

GROUSE, RUFFED

Season—Nov. 20, 1969 through Feb. 28, 1970.
Bag Limit—3 Daily, possession limit 6.

OPOSSUM

Early Season—Sept. 27, 1969 through Jan. 24, 1970 in Coweta County only.
Regular Season—Oct. 18, 1969 through Feb. 28, 1970.
Bag Limit—None.

QUAIL

Season—November 20, 1969 through Feb. 28, 1970.
Bag Limit—12 daily, possession limit, 36.

RABBITS

N. Ga. Season—Nov. 15, 1969 through Jan. 31, 1970.
N. Ga. Bag Limit—5 daily.
S. Ga. Season—Nov. 20, 1969 through Feb. 28, 1970.
S. Ga. Bag Limit—10 daily.

RACCOON

N. Ga. Season—Oct. 18, 1969 through Feb. 28, 1970.
Bag Limit—One (1) per person per night.

SQUIRREL

Season—Oct. 15, 1969 through Feb. 28, 1970.
Bag Limit—10 daily.

TURKEY

S. W. Ga. Season—Nov. 20, 1969 through Feb. 28, 1970 in Baker, Calhoun, Decatur, Dougherty, Early, Grady, Miller, Mitchell, Seminole, and Thomas counties.
S. W. Ga. Bag Limit—Two (2) per season.

SEASONS OPENING THIS MONTH

DOVES

Season—Dec. 6, 1969 through January 15, 1970.
Bag Limit—18 daily, 36 in possession.

SNIPE, WILSON'S

Season—Dec. 13, 1969 through Jan. 31, 1970.
Bag Limit—8 daily, possession limit 16. See Federal regulations.

ALTAMAHA WATERFOWL AREA (DARIEN)

Butler Island Managed Blind Duck Hunts: Saturdays only, Nov. 20, 1969 through Jan. 15, 1970. Hunting hours sunrise to 12 noon, E.S.T. After Nov. 1, applications to hunts not filled in the October drawing will be accepted on a first come, first served basis. For information on which hunts are filled, call the State Game and Fish Commission at Brunswick, area code 912, 265-1552.

All letters of application must specify the date requested with a second choice if desired in the event the first date is filled. All applicants must enclose a fee of $5 per day per person in check or money order payable to the Georgia Game and Fish Commission. Applications should be addressed to P. O. Box 1097, Brunswick, Ga.

BLACKBEARD NATIONAL WILDLIFE REFUGE

Archery hunt for deer; either sex; bag limit—2 deer: Dec. 30, 1969-January 2, 1970. Raccoons may also be taken on the above hunt. Applications for the December hunt must be made by Dec. 22. Write to the Refuge Manager, Savannah National Wildlife Refuge, Rt. 1, Hardeeville, S. C. 29927.

SCAUP

Bonus Season—Jan. 16, 1970 through Jan. 31, 1970 in that area east of the Intercoastal Waterway only in Chatham, Bryan, Liberty, McIntosh, Glynn, and Camden counties.
Bag Limit—5 daily, possession limit 10.

EVENTS THIS MONTH

Georgia Sportsmen's Federation Annual Convention—December 6-7, Thomaston, Ga.

EVENTS NEXT MONTH

Georgia Conservancy Annual Conference —January 30-31, 1970 at the Marriott Motor Hotel, Atlanta.

MANAGED DEER HUNT SCHEDULE

ARCHERY (EITHER SEX)

Dates	*Areas*
Dec. 1-6	Allatoona
Dec. 15-20	Bullard Creek

BUCK ONLY

Dates	*Areas*
In Season	Altamaha and Lake Seminole
Oct. 15-Jan. 3	Brunswick Pulp and Paper Company (Special regulations apply to each tract of this area)
Dec. 1-6	Waycross State Forest
Dec. 15-19	Suwanoochee (permit required, no fee)

EITHER SEX

Dates	*Areas*
Dec. 20	Suwannoochee For details see the booklet "Georgia Game Management Areas" available at no charge from the State Game & Fish Commission

SMALL GAME MANAGED HUNTS SCHEDULE

(For detailed information of each individual area, write the State Game and Fish Commission, 270 Washington St., S.W.) No permits required, except Butler Island ducks.

DATES	*AREAS*	*SPECIES*
Reg. Season	Lake Seminole, Whitesburg, Allatoona, Altamaha (except Butler Island), Cohutta, Grand Bay, Brunswick Pulp and Paper Co. (except during dog deer hunts)	All (except raccoons)
Nov. 20-Jan. 15 Sat. only	Altamaha (Butler Island)	Waterfowl and Dove
Dec. 8-Feb. 28 Fri. & Sat.	Lake Russell	All except Raccoons
Dec. 12-Feb. 28 Fri. & Sat.	Swallow Creek Coleman River	Grouse, Squirrel, Rabbit
Dec. 12-13, 19-20 Jan. 2-3	Chestatee	Squirrel Grouse
Dec. 12-13, 19-20 Jan. 16-17 Feb. 6-7	Lake Burton	Squirrel, Grouse
Dec. 3-24 Jan. 3-31 Wed. & Sat.	Piedmont Exp. Sta.	Quail, Squirrel, Rabbit, Doves (In Season)
Dec. 3, 6, 10, 13, 17, 20, 24 Jan. 3, 7, 10, 14, 17, 21, 24, 28, 31 Wed. & Sat.	Cedar Creek	Quail, Squirrel, Rabbit, Doves, Ducks (In season)
Dec. 12-13, 19-20 Jan. 9-10.	Chattahoochee	Grouse, Squirrel, Rabbit
Dec. 3, 10, 17, 24, 31 Jan. 3, 7, 10, 14, 17, 21, 24, 25, 31	Bullard Creek	Quail, Squirrel, Rabbit, Dove, & Snipe (In Season)
Dec. 12-13, 19-20 Jan. 2-3	Blue Ridge	Grouse, Squirrel
Dec. 3-24 Jan. 3-31 Wed. & Sat. only	Oaky Woods	Quail, Squirrel, Rabbit
Dec. 10-24 Jan. 3-31 Wed. & Sat.	Clark Hill	Quail, Squirrel, Rabbit, Doves Ducks (In season))
Dec. 12-13, 19-20	Warwoman	Grouse, Squirrel
Jan. 5-10	Alapaha	All (In season)
Dec. 11, 12, 13	Waycross State Forest	Quail, Squirrel, Rabbit

TIDE TABLE

DEC. 1969

GEORGIA COASTAL WATERS

HOW TO USE THESE TABLES

The calculations are for the outer bar. Find the reading for the desired tide. In the table below find the number of minutes to add to correct for the place you are going to fish or swim. The outer bar calculation, plus this correction, gives the correct reading for the point desired.

Adjust For Daylight Saving Time By Adding One Hour

CORRECTION TABLE

The times given are for Savannah River entrance (Tybee).

	Hrs.	Min.
Savannah High	0	44
Savannah (Low)	*	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabaw Sound	0	05
Vernon View	0	35
Coffee Bluff	0	55
Ogeechee River Bridge	3	50
St. Catherine Sound	0	25
Sapelo Sound	0	00
Brunswick Bar	0	00
St. Simon Pier	0	25
Frederica Bridge	0	50
McKay Bridge	0	50
Brunswick East River	0	50
Turtle River Bridge	0	55
Turtle River, Crispen Is.	1	10
Humpback Bridge	1	00
Jekyll Point	0	30
Jointer Island		55
Hampton River Village Creek Ent.	0	20
Village Fishing Camp	0	45
Taylor Fishing Camp	1	00
Altamaha Fishing Park, Everett, Ga.	4	00
Two-Way Fishing Camp, S. Altamaha	2	00

	Last Quarter	New Moon	First Quarter	Full Moon
DEC.	31	9	16	23

DECEMBER, 1969

Day	HIGH WATER A.M.	HT.	P.M.	HT.	LOW WATER A.M.	P.M.
1. Mon.	12:30	5.7	12:48	6.4	6:54	7:30
2. Tues.	1:24	5.8	1:42	6.3	7:54	8:18
3. Wed.	2:18	6.1	2:30	6.3	8:48	9:12
4. Thurs.	3:12	6.4	3:24	6.3	9:48	10:00
5. Fri.	4:06	6.8	4:18	6.4	10:36	10:42
6. Sat.	5:00	7.3	5:18	6.5	11:30	11:30
7. Sun.	5:54	7.7	6:08	6.7	....	12:18
8. Mon.	6:42	8.1	6:54	6.8	12:18	1:12
9. Tues.	7:30	8.3	7:48	6.9	1:12	2:06
10. Wed.	8:24	8.3	8:36	6.9	2:06	2:54
11. Thurs.	9:12	8.2	9:30	6.8	3:00	3:48
12. Fri.	10:12	8.0	10:30	6.7	3:54	4:42
13. Sat.	11:12	7.6	11:30	6.7	4:48	5:36
14. Sun.	....	..	12:12	7.3	5:48	6:30
15. Mon.	12:36	6.7	1:12	6.9	6:48	7:30
16. Tues.	1:36	6.7	2:12	6.6	7:54	8:30
17. Wed.	2:36	6.8	3:12	6.4	9:00	9:24
18. Thurs.	3:42	6.9	4:06	6.2	10:00	10:18
19. Fri.	4:36	7.1	5:06	6.1	10:54	11:06
20. Sat.	5:30	7.3	5:54	6.1	11:48	11:54
21. Sun.	6:18	7.4	6:42	6.0	....	12:36
22. Mon.	7:00	7.4	7:24	6.0	12:36	1:18
23. Tues.	7:42	7.4	8:00	5.9	1:24	2:06
24. Wed.	8:18	7.3	8:36	5.8	2:06	2:48
25. Thurs.	8:54	7.2	9:12	5.8	2:48	3:24
26. Fri.	9:30	7.0	9:48	5.7	3:24	4:00
27. Sat.	10:06	6.8	10:30	5.7	4:06	4:36
28. Sun.	10:42	6.6	11:06	5.7	4:48	5:12
29. Mon.	11:24	6.4	11:54	5.8	5:30	5:54
30. Tues.	....	..	12:06	6.2	6:12	6:36
31. Wed.	12:42	5.9	12:54	6.1	7:06	7:24

SUBSCRIBE NOW!

1 year - $1.00 3 years - $2.50

To report violations or if you need assistance in the Coastal Area—Call—State Game & Fish Commission, Brunswick, Georgia, P. O. Box 1097, Phone 265-1552, Savannah 233-2383, Richmond Hill 756-3679.

KENT DENDLESON

THE ATLANTA MAGAZINE

GUIDE TO FISHING IN GEORGIA

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introduction

IT WASN'T what most people would call a good day for fishing, that morning in 1932 when George Perry and his friend went fishing in the small oxbow lake of the Ocmulgee River in Telfair County. The water was high and muddy, but it was the middle of the Depression, and the young farmer's family was hungry.

Slipping into a tiny wooden rowboat tied to the shore, the two men oared up the narrow stretch of water. George tied a new plug onto the first and only reel he had ever owned in his life, and cast toward the submerged limbs of some trees that had fallen in the water. "When he took the lure, he headed straight for those trees," Perry recalled. "The fish was so big that he practically swallowed the lure. There wasn't any chance of him getting it out of his mouth. The only problem I had was trying to keep him out of the old fallen tree branches." After a short struggle by modern light tackle standards, Perry brought in his prize, a big, husky bass.

Although he could already smell fish frying on the stove, he did stop by a small grocery store in Helena, one mile north of McRae, to have his lunker weighed. It tipped the scales at twenty-two pounds, four ounces . . . a new world's record. Thirty-seven years later, Perry's record still stands; much to the chagrin of those Floridians who boast of their famous bass fishing.

While it may be true that other states do indeed offer outstanding fishing for particular species of fish, Georgia's strong point is the great variety of fishing available. For instance, Georgia is the southernmost state in the Union with native mountain trout fishing. Unlike most other southern states, there are more than seven hundred miles of coldwater trout streams in Georgia's end of the Appalachian Mountain chain.

Heard of float fishing on streams like Arkansas's White River? Georgia has 3,500 miles of some of the world's finest fishing rivers. There are eighteen major streams in the state including famous fishing waters like the Ogeechee, the Altamaha, Satilla, St. Marys, Suwanee, and Flint rivers.

Maybe you've fished the great reservoirs of the TVA. Georgia has twenty reservoirs with a combined area of over three hundred thousand acres, including three TVA reservoirs, Blue Ridge, Nottely, and Chatuge, which offer some of the best fishing in North Georgia. Eight United States Army Corps of Engineers reservoirs, including Lake Lanier and Clark Hill, make up the largest portion of the total acreage (two more are under construction), followed by nine Georgia Power Company lakes.

Minnesota bears the appellation "Land O' Lakes." Most out-of-state fishermen are surprised to learn that Georgia has even more lakes . . . more than sixty thousand, in fact. Unlike Minnesota's ten thousand lakes, most of Georgia's lakes are man-made. Seen from the air, the small farm ponds and recreation lakes reflect the sunlight like thousands of brightly flashing jewels. All of them are stocked with fish.

In addition to largemouth bass fishing, Florida has built its claim to fame on its saltwater fishing. But since it's the same ocean, all of the major saltwater fish found in Florida are also caught off the Georgia coast, except snook and the subtropical bonefish. With its thousands of tidal creeks, rivers, and sounds behind the seven major offshore barrier islands, there are more than one thousand miles of virtually untouched winding shoreline on the Georgia Coast.

And finally, defying description as a stream, river, lake, pond, or ocean, is the most famous fishing hole in the United States . . . the fabulous Okefenokee Swamp, "Land of the Trembling Earth."

Undoubtedly, the largemouth bass is the most prized fish sought by anglers in all of these waters. Largemouths weighing up to fourteen or fifteen pounds are caught every year by Georgia fishermen, in both large reservoirs and small ponds. Two bass weighing over seventeen pounds were caught in 1965, one in Lake Lanier, the other in a small fishing pond at Marietta. Thousands of bass are caught each year weighing from three to thirteen pounds. Almost any one of them would be a trophy in Minnesota, Ohio, New York, or Nebraska, where bass simply don't have the time and temperatures to grow that big.

All of the popular major game fish of America are found somewhere in Georgia, including small mouth bass, rainbow, brook, and brown trout, walleye, chain pickerel (world's record), white bass, crappie, blue gill, yellow perch, channel catfish, American shad, striped bass (freshwater world's record), sea trout, channel bass, Spanish and king mackerel, tarpon, bluefish, and sheepshead. An angler who doesn't mind driving to any of the four corners of Georgia can take his pick, depending on the time of year.

Compared to other states, Georgia's fishing laws and regulations are light. For instance, unlike many Northern states, there are no seasons on Georgia sport fish, with the exception of mountain trout. Sunday fishing is allowed.

Creel limits for most species are liberal by Northern standards: fifteen bass per angler per day, thirty white bass, fifty crappie, and fifty bream. There are no state-wide size limits, except for trout in a few designated streams and reservoirs, and largemouth bass on three major reservoirs.

A 1961 survey by the U. S. Census Bureau estimated that Georgia had 1,087,409 fishermen over twelve years of age who spent $78,951,600 that year on their sport, a significant boon to Georgia's economy. Economists say the impact of every dollar spent in any activity is multiplied many times as it changes hands in commerce. The actual value to the state of sport fishing may well exceed $178,000,000. When $23,385,000 spent by hunters is added to this figure, Georgia's wildlife resources take on new dimensions of importance, in spite of the fact that the potential for Georgia tourism based on hunting and fishing has scarcely been scratched.

This potential has given the State's planners cause for thought, and the message has not been lost on them. Where industrial development or exploitation of natural resources without regard to wildlife or recreation was once the case, a new concern for protecting these resources is emerging. As a relatively unindustrialized state with an abundant water supply and a fairly low population density outside a few urban areas, Georgia is in an enviable position to appeal to the fisherman, hunter, hiker, boater, camper, birdwatcher, or nature lover.

True, there are ugly scars on Georgia's mantle of forests and fields made by highways, strip mines, subdivisions, and factories. The Chattahoochee River below Atlanta and the Savannah River below its namesake city are open sewers and industrial dumping grounds, as are many of the nation's once great streams. But the over-all picture is anything but bleak. In 1966, the General Assembly passed a tough new water pollution law, requiring old industries to clean up, and new ones to construct adequate waste treatment facilities before beginning operation. Cities and towns have been given similar standards to meet. Under a tough executive secretary and an energetic staff of professionals, the State Water Quality Control Board has made dramatic progress in cleaning up long-standing pollution problems. In many cases, industry has taken the lead voluntarily. By 1975, most of Georgia's streams will be vastly improved. Similarly, a new strip mining land reclamation board has been created.

So much for a few black spots. If you're a new Georgia resident, a prospective visitor, or an old timer looking for a new place to go or a new fish to catch, what do you do? You can pick up your tackle and head for the nearest water. If it's not posted, it's probably as good a bet as any other. But if you're one who feels more comfortable when armed with information, you can find it in the detailed description of fishing in the various sections of Georgia accompanying this article, along with a list of fishing facilities open to the public.

☐ If you want to get a heated and confused argument going in a hurry, get a few fishermen from different parts of Georgia together with a fish biologist or two, then ask them to agree on the common name, habits, and best ways of fishing for any species you like. There's plenty of room for argument, even among the experts, since there are at least 124 distinctly different species of fish in Georgia, not counting hundreds of types of small minnows that only an Ichthyologist can identify with a microscope. At least thirty-two of these species are considered game fish, with some argument over a few of the others.

There are, for example, nine "bass" in Georgia. The most popular among them, the largemouth, are usually called "trout" in South Georgia. Biologists say that there are really only two members of the bass family found in the state, and the largemouth isn't one of them. He's a member of the sunfish family.

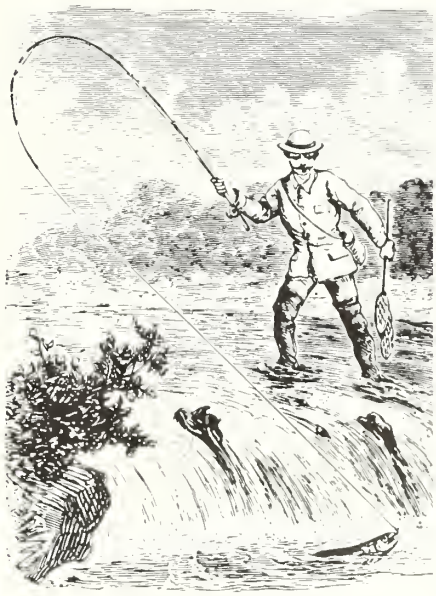
Multiple popular names never cease to be a source of amusement and conversation when fishermen from different areas meet. A good example is the black crappie, or *Pomoxis nigromaculatus,* just to make certain we all know what fish we're talking about. Many fishermen pronounce and spell crappie just the way it looks. Others spell and pronounce it "croppie," while some spell it "crappie" and pronounce it "croppie." South Georgians avoid the problem entirely by calling them "white perch," which is the most common name of a small ocean fish that swims up freshwater rivers from South Carolina northward. In many areas of Florida, the black crappie is known as speckled perch, as one angry Georgia angler found when he drove three hundred miles after hearing that "specks" were hitting like crazy.

The walleye of north Georgia is usually called a "Jack," or "pike." Chain pickerel of south Georgia are known as "jackfish." Redear sunfish are usually "shellcrackers." White bass are "stripers." Brook trout are "specs." When it comes to catfish, the simplest thing to do is to forget about precise identification, since even the common channel catfish is variously known as the spotted cat, fiddler, forktail cat, sand cat, blue cat, and white cat. Flathead catfish are sometimes known as shovelhead cat, mut cat, or yellow cat.

Part of the problem with different names lies in the fact that not all species are found in all of Georgia's lakes and rivers. Only five species can lay claim to this distinction: largemouth bass, black crappie, bluegill, redbreast sunfish, and channel catfish.

Water temperature has a lot to do with whether the fish that you land thirty minutes from home is a rainbow trout, a spotted bass, or a chain pickerel. In the high altitude, cold water streams of northeast Georgia, rainbow, brown, and native brook trout are the only game fish found. Just south of trout waters, intermediate cold water game fish species like the smallmouth, redeye, and the spotted bass are prevalent, succeeded a little further south by clearly warm water species like the largemouth bass, black and white crappie, bluegill, white bass, and channel catfish. These species then blend with varieties that are common only in south Georgia, like the chain pickerel or jackfish, and the warmouth, both of which are found in the Okefenokee Swamp.

For no apparent reason, some game fish found in one river basin system will not be found in another that appears to be identical, and which may share most of the same fish. An example is the white crappie. Its black cousin is found in every river and lake in Georgia, but the white crappie is not in Lake Lanier or Allatoona, or in any of the reservoirs in extreme North Georgia or in the Chattahoochee River. On the other hand, it can be caught in Lake Jackson, Hartwell, and Clark Hill. Both species feed on small minnows, and are caught by thousands in March while spawning near the shore in most large reservoirs. Night fishing is best in the summer.



Biologists and fishermen have never agreed on a common name for the wide variety of panfish in the sunfish family sometimes described as "bream," which is pronounced and sometimes spelled "brim." These fish are usually grouped together because they share many common characteristics including size, appearance, and feeding habits.

Probably the most popular member of this clan is the bluegill, a scrappy rascal who will bite anything small that looks like a good meal. Since a fish biologist discovered that bluegill could be stocked in artificial ponds successfully with largemouth bass, redear sunfish (shellcracker), and channel catfish, the popularity of these four species has skyrocketed. The best time to catch bluegill is in the late spring and summer while they are "on the bed" spawning. Most bluegill fishing is with live bait, especially earthworms of any size, and crickets. Artificial lure fishermen can take them on small fly rod size popping bugs and wet flies. The redbreast sunfish, or "redbelly," is the most popular stream bream, since they are usually more common and numerous in rivers and creeks than bluegills and warmouth. As indicated by the name, the warmouth can be identified by a larger than average size mouth on a fairly short body. Frequently, they are almost black in color when taken from a clear water lake or stream. Warmouth feed on minnows more than do other bream. In the Suwanee River and the Okefenokee Swamp, they feed almost exclusively at times on small creyfish.

Undoubtedly, the most popular Georgia fish is the largemouth bass because of its size, fighting ability, inclination to take artificial lures, wide availability, and largely because it tastes good. The average bass is about two to three pounds, although many smaller ones are caught. Dozens of largemouth over ten pounds in size are caught each year in large lakes and small ponds all over Georgia.

The largemouth is probably one of the more difficult game fish to catch because of its intelligence and the fact that it is less numerous than other members of the sunfish family. Some fishermen swear by live bait, especially large minnows called "shiners" and large "pink worms." Others prefer artificial lures, plugs, spoons, or the newer artificial plastic "worms," which have soared to popularity in recent years. Techniques for working the various lures vary drastically depending on time of year and the type of water. Several books have been written on the subject, but the best way to learn bass fishing is to go with someone who has mastered the art.

The selection of fishing tackle is largely a matter of personal preference, but the modern spinning or spincasting reel and rod is probably the most practical equipment for almost every species of Georgia fish, with live or artificial bait. The improved versions of the old style casting reel still have advocates, especially for bass fishing in stumpy, weedy waters like Lake Seminole. Fly rod fishermen are definitely in third place, numerically. Mountain trout are the most common quarry of fly fishermen, although some consistently fish for largemouth bass or bream, as well as other species. In saltwater, all three types of tackle have their place. Small freshwater reels and rods are used as well as heavier and larger saltwater models with star drags.

LAKE NOTTELY
LAKE CHATUGE
Tallulah
LAKE BLUE RIDGE
LAKE BURTON
LAKE RABUN
SEED LAKE
TUGALO LAKE
Toccoa
GENERAL TROUT AREA
TALLULAH LAKE
YONAH LAKE
Ocoee
Chestatee
Tugalo
HARTWELL RESERVOIR
Coosa
Etowah
LAKE LANIER
LAKE ALLATOONA
Broad
CLARK HILL RESERVOIR
Chattahoochee
South
Yellow
LAKE JACKSON
LAKE SINCLAIR
Savannah
Oconee
BARTLETTS FERRY RESERVOIR
GOAT ROCK RESERVOIR
LAKE OLIVER
Ogeechee
Ohoopee
Ocmulgee
Canoochee
LAKE BLACKSHEAR
LAKE WALTER F. GEORGE
Altamaha
Little
Alapaha
Flint
Satilla
OKEEFENOKEE SWAMP
Ochlockonee
St. Marys
Suwanee
LAKE SEMINOLE

fish camp facilities

RIVERS	FACILITY AND MANAGER	PHONE	LOCATION	NEAREST TOWN
Altamaha	Altamaha Park Fish Camp, *Jim Wheeler*	264 2342	U S 341	Everett City
	Davis Fish Camp *E L Davis*	367 4228	Ten Mile Rd	Baxley Ga
	Deen's Landing *Grady Deen*	367 2949	U S #1	Baxley Ga
	Dewey Adamson Fish Camp *Roy Driggers*	654 9058	Ga 261 (unpaved)	Glenville Ga
	Eason Bluff Landing, *T L Carter*		Ten Mile Rd	Baxley Ga
	Moody's Fish Camp, *Horace Moody*	654 6128	Ga 261 (unpaved)	Glenville Ga
	Paradise Park Camp *H H Yeomans*	427-6139	U S 341	Jesup
	Parkers Fish Camp *Jim Parker & G C Hall*	545-9901	Ga 276 (unpaved)	Ludowici Ga
	Riverside Park *Bill Tyre*	427 6661	U S 301	Jesup
	Two-Way Fish Camp, *Frank Culpeper*	265-8268	U S 17	Darien
	Williams Marina & Trailer Park *Troy Williams*	526 6036	U S 1 at Ga 107	Lyons Ga
Coosa River	Crumley's Lock & Dam Bait Shop, *Bill Crumley*	234 5622	U S 27 at Ga 53	Rome Ga
Flint	Campers Haven *Travis B Stewart*	268 9076	Ga 27	Vienna Ga
	Pats Camp, *E B Dupree*	268 5726 Ext 853 2100	Ga 27	Vienna Ga
Ogeechee	Brown's Place *J E Brown*	788 4591	Ga 204	Bloomingdale
	Coleman Lake & Country Club, *Daniel T Moore*	589 2637	Ga 56 &	Midville Ga
	Dashers Fishing Lodge *W R Odom*	748-4178	Coleman Lake Rd U S 80	Savannah Ga
	Harvey's Fish Camp, *John T Harvey*	758-4052	Old River Rd	Meldrim
	Jones Lane Fish Camp *W M Donaldson*	587-2253	Ga 17	Cooperville
	Ogeechee Fishing Camp *E L Sallette*	756-3952	Ga 67	Richmond Hill
	Uncle Shad's Fishing *Bessie F Dickerson*	748-4339	Ga 204	Richmond Hill
	Williams Landing, *Dewey Lee*	587-5768	Dirt Rd between Ga 24 & U S 301	Statesboro Ga
Satilla	3 R Fish Camp *J M Davis*		Ga 252	Woodbine
	Happy Hollow Fish Camp *John H Johnson*		Ga 259	Hortense Ga
	Sewell's Camp *Earest Boyd*	462-5317	U S 84	Nahunta
	Smith Boat Landing *Rufus L Smith*	462 5601	U S 84	Nahunta
Savannah	Tails Fish Camp *E H Hartzog*	754-4615	Ga 21	Rincon
St Mary's	John's Fish Camp *Tom Lewis*	729 5314	Ga 40	Kingsland Ga
Suwannee	Griffis Camp & Motel *Alice H Griffis*		U S 441 at Ga 177	Fargo
Turkey Creek	Turkey Creek Fishing Camp *James I Bridger*	272 4585	Ga 19	Dublin
RESERVOIRS				
Allatoona Lake	Allatoona Landing *Robert L Barfield*	974 6089	Ga 293	Acworth
	Galt's Ferry Landing, *George Austin*	974 6422	Ga 92	Acworth
	King's Camp *Pop King*	974 0710	Glade Road	Acworth
	Little River Landing *Hubert Hartman*	345-6200	Ga 205	Canton
	Park Marina *Jake Boots*	974-6063	U S 41	Cartersville
	Victoria Landing *D E Musser*	926-6608	Ga 205	Canton
	Wilderness Camp *M E Coalson*	382-7899	Ga 20	Cartersville
Bartletts Ferry Lake	Lick Skillett Landing, *W R Wynn*		Off Ga 103	West Point
	John Sylrett Fish Camp *John Sylrett*		Off Ga 103	Columbus
Blackshear	G Veteran Mem State Park *G H Enans*	273 2190	U S 280	Cordele
	Hargroves Gro *Charles Hargrove*	853-2240	U S 280	Leslie
	Johnson Fish Camp *Carlos Johnson*	535-4692	Ga 257	Cordele
	Smook Bridge Bait & Tackle *A N Whitfield*	535-8891	Ga 257	Warwick Ga
Lake Blue Ridge	Blue Ridge Boat Dock *Herbert K Ellis*	632-2618	U S 76 State Rt 2	Blue Ridge
Burton	Anchorage Boat Dock *Frank Suber*	782-9979	U S 76	Clayton
	Hill's Camp, *Claud Hill*	782-3234 (Nite) 782-3078	U S 76	Clayton
	Hill's Landing, *Manson Hill*	947-3411	Ga 197	Clarkesville
	Laprade's Camp *Buford Laprade*	947-3312	Ga 197	Clarkesville
Chatuge Lake	Chatuge Cottages, *Cecil Manship*	896-2212	U S 76	Hiawassee
	Farmer & Lynch, *Winston Farmer*	896-2251	U S 76	Hiawassee
	Fullers Camp, *Thomas I Fuller*	896-3555	U S 76	Young Harris
	The Lazy Acre Cabins *George W Edwards*	896 2257	U S 76	Hiawassee
	Shady Rest *Hensley*		U S 76	Hiawassee
	Smitty's Boat Dock *Thomas H Smith*		U S 76	Hiawassee
Clark Hill	Elijah Clark State Park *J F Fortson*	359 4461	U S 378	Lincolnton
	Little River Sportsman Camp *Thos E Shaw*	556 6538	Ga 47	Appling Ga
	Soap Creek Lodge *Ralph G Pritchard*	EL 9 3912	Ga 47	Lincolnton Ga
Lake Hartwell	Hartwell Hi/Dri Marina, *Doc Rits*	376 8711	U S 29 State 77	Hartwell Ga
	Lavonia Harbor *Harold Doster* Light-Marina	356 2975	Whitworth Rd Off I 85	Lavonia
	Tugaloo State Park *Charles Cobb*	356 5128	Ga 328	Lavonia
Highfalls	Highfalls State Park *S L Letson*	994 5080	Highfalls Rd Off I-75	Jackson
	Irene Jones *Irene Jones*	994 9045	Highfalls Rd Off I 75	Forsyth
	Walter Weems *Walter Weems*		Highfalls Rd Off I 75	Forsyth
Jackson Lake	Carters Landing *Robie Carter*	786 5170	Ga 36	Covington
	Kerseys Landing *Van Kersey*	775 7943	Barnetts Bridge Rd	Jackson
	McAfee Camp *J W McAfee*	786 6139	Ga 36	Covington
	Berry's Landing *Mrs Johnnie Berry*	786-6087	Waters Bridge Off Ga 212	Covington
	Shelnutt *Ben Shelnutt*	775 3843	Ga 36	Jackson
	Turner's Boat Marina *James D Sh[illegible] Jr*	775 3892	Ga 221	Monticello
Lanier	Aqualand Marina *Allen J Bryans*	967 6811	Off U S 23	Flowery Branch
	Baldridge Marina, *Henry C Bennett*	887 5309 522 9297	Ridge Rd	Cummings Ga
	Gainesville Marina *Ed Cox*	536 2171	Ga 53	Gainesville
	Holiday on Lake Lanier *R H Goethe*	945 7201	Ga 347	Buford
	Lan-Mar Marina *Sherman Adams*	887 5715	Ga 141	Gainesville
	Snug Harbor *A C Sheffield*	534 9247	Off S 23	Gainesville
	McDuffie Public Fishing Area *Ed Henderson*	595 1619	U S 78	Dearing

RIVERS	FACILITY AND MANAGER	PHONE	LOCATION	NEAREST TOWN
Nottley Lake	Lake Cove Lodge *H L Roger*	745 62[illegible]	Ga 325 Off [illegible]	Blairsville
	Nottley Boat Dock *Tom Bowling*		Ga 325 Off U S 129	Blairsville
Lake Oliver	Municipal Marina of Columbus *Paul [illegible]*		Ga 103	Columbus
Lake Rabun	Hall's Boat House *Guy Hall*	[illegible]2 9981	U S 441	Clayton
	Lake Rabun Boat House *Fred Worley*	[illegible]2 9982	U S 441	Clayton
Rock Eagle	Rock Eagle 4 H Club Center *Frank Fitch*	485 2831	U S 441	Eatonton
Seminole	Dunn Camp #1 Chat *Dunn & Smith*	861 2465	Ga 253	Donalsonville
	Dunn Camp # State Park *Dunn & Smith*		Ga 39	Donalsonville
	Reynolds Landing *Kenneth Reynolds*	861 2547	Ga 253	Donalsonville
	Stones *Donald E Stone*		Off Ga 310	Bainbridge
	Jack Wingate's Fishing Lodge *Jack Wingate*	(912) 246 0658	Ga 310	Bainbridge
Sinclair Lake	Bass Boat House *Otis Hogan* 'Marina', *Harry Williams*	453 4010	Off U S 441	Milledgeville
	Crooked Creek Fish Camp *Kennedy & Briscoe*	485 8422	Off U S 441	Eatonton
	Green's Boat Landing		Off Ga 212	Milledgeville
	Al Haslam's Marina *Al Haslam*	986 5461	Off Ga 212	Milledgeville
	Little River Park *Bob Sloan*	452 7116	U S 441	Eatonton
	Murder Creek Public Boat Ramp		U S 129	Eatonton
	Sinclair Marina *Gray Baughcum*	452 5558	Off U S 441	Milledgeville
	Sinclair Motel *Albert May*	485 6824	U S 441	Eatonton
	Lake Sinclair Recreation Area *B G Malone*	468 6990	Ga 212	Eatonton
	Todds Landing *Marvin Johnson*		Ga 16	Sparta
Tobesofkee Lake Walter F George	Tobesofkee Recreation Area *Larry Wilson*	743 8921	Off U S 80 Ga 74	Macon
	Cotton Fish Camp *Clyde Cotton*		Omaha Georgetown Hwy Off U S 27	Omaha
	Dolphin Docks *A M Green*		Hwy 27 80 280	Columbus
	Florence Marina *John Barfield*		Omaha Georgetown Hwy Off U S 27	Omaha
	M & M Motel *C H Mobley*	768 5245	Ga 39	Fort Gaines
	Pataula Boat Rental *Jack Brady*	768 3788	Ga 39	Fort Gaines
	Stanley Boat Rental *Leonard Stanley*	768 3173	Off Ga 39	Fort Gaines
	Corps of Eng Ramp *U S Army Corps of Eng*		Off U S 27	[illegible]
SALT WATER AREAS				
Altamaha River	Two Way Fish Camp *Frank Culpeper*	265 8265	U S 17	Darien
Ashley Creek	Yellow Bluff Fishing Camp *Arthur Goodman*	884 5448	Ga 38	Midway
	Youman's Party Boat Service *Hoke Youman*	884 5449	Ga 38	Midway
Barbers River	Bartrum's Fish Camp *Roy Bartrum*		Ga 131	Darien
	Burkes Fisherman Lodge *J I Burke*	832 4671	Shellman Rd Off U S 17	Shellman
Chimney River	Chimney Creek Fishing Camp *Howard Hagan*	786 4751	U S 80	Tybee
Fredrica River	St Simon's Boat Marina *Ed Talbot*	638 9146	St Simon Causeway	St Simons
Forest River	Coffee Bluff Fishing *Tallie DeVerges*	354 9151	White Bluff Rd	Savannah
Half Moon River	Branch's Fishing *Allen Branch*	884 5819	Off Ga 38	Midway
Hampton River	Taylor Fish Camp *Mrs Reginal Taylor*	238 8201	St Simons Causeway	St Simons
Herb River	Tatem's Fishing *M H Tatem Jr* Camp & Marina	355 9182	Bluff Rd	Savannah
Jekyll Creek	Jekyll Marina *Bill William*	635 2241	1 Pier Road	Jekyll Island
Jerico River	Norby's Fishing Camp *Ellen Powell*	884 5412	Off Ga 38	Midway
Jointer River	Mac Bait House *Ray Mongle*		Off U S 17	Jekyll Island
Julieton River	Harold's Fish Camp *Harold Wiberg*	832 5116	Dallas Bluff Off U S 17	Shellman
Kilkenny River	Kilkenny Fish Camp *Robert Bacot*	756 3940	Ga 67	Richmond Hill
North River	McIntosh Rd & Gun Club *Itahen Stewart*	437 4677	Ga 99	Darien Ga
	McIntosh Rd & Gun Club *Mrs Stu Miller*	437 4677	Off Ga 99	Darien
	North River Dock *J A Tootle*	437 4651	Ga 99	Darien
Sapelo River	Pine Harbor Marina *John Dasher*	832 4992	Off U S 17	Darien
Shellman River	Kips Fishing Camp *Philip Smith*	8[illegible] 5162	Off U S 17	Darien
St Simons Island	Olson Yacht Yard Inc *O H Olson*	638 8633	St Simons Causeway	St Simons Is[illegible]
Terry Creek	Brunswick Boat Marina *Bill Shoemaker*		U S 17	Brunswick
Turtle Creek	Turtle Creek Marina *Bill Durham*	264 3862	U S 17	Brunswick
Wassaw Sound	Hallman's Marina *D D Hallman*	354 6425	Hwy U S [illegible] at Thunderbolt Ga	
White Chimney	White Chimney Bluff *L L Clark*	832 5161	Shellman Rd Off U S 17	[illegible]
Willimington River	Savannah Macon *Doc Wilson*	8[illegible] 1189	Off U S [illegible]	Thunderbolt
SWAMP				
Okefenokee	Okefenokee *Al[illegible] Carte*	[illegible]	Off [illegible] & 23	Folkston
	Hen's Fish Camp *John H[illegible]*	496 [illegible]	U S 23 [illegible]	Folkston
	Stephen Foster State Park *Lawrence Day*		Ga [illegible]	Fargo Ga
	Swamper Restaurant *Jimmy Walker*	[illegible]	U S 1 & 23	[illegible]

on trout

☐ If ever there was a glamorous fish, the trout is it. Exactly why the thought of battling a leaping rainbow in a crystal-clear mountain stream drives fishermen to distraction has yet to be determined. Even though most Georgia trout are relatively small, fishermen have been known to drive for hundreds of miles in the frail hope of outsmarting one. This usually is easier said than done, despite confused and hungry trout fresh from the hatchery who sometimes aren't above taking a kernel of corn, ball of cheese, cigarette filter, or even a bare hook.

The real problem with trout fishing is that there aren't enough trout streams to go around for all the trout fishermen, especially since the latter are increasing every year while the former are declining, due to "scenic highway" construction, etc. While Georgia has more than seven hundred miles of trout fishing, the 1960 census estimated that it has at least 381,681 fishermen who go after trout at least once a year. That comes to 546 fishermen per mile, if they all go fishing on the same day.

Since clear trout streams are relatively infertile from the standpoint of natural food production, Mother Nature can't feed enough trout fast enough for such a ravenous horde. Mud and silt have impaired the ability of trout eggs to hatch in some of the best mountain streams, and, as a result, such streams are merely cold water "bathtubs," suitable only for hatchery trout soon to be caught.

In order to make the number and the size of trout compatible with the number and the size of trout fishermen, the State Game and Fish Commission began raising keeping size trout for stocking in 1928, and hasn't slowed down since. Production still doesn't meet the demand, but the Commission does manage to stock, on the average, two fish per fisherman per trip in open trout streams in eleven northeast Georgia mountain counties from Ellijay (state record rainbow, caught with chicken entrails) to Clayton. There are 138 streams in these counties which are open every day of the trout season, usually from early April to early October. The two most popular open streams are Cooper's Creek, north of Dahlonega, and the Tallulah River west of Clayton.

But the best fishing and the fewest fishermen are found on twenty-three streams in game management areas where the Commission charges a dollar per day per fisherman. Trout are stocked in these streams twice as heavily as in outside streams, averaging four fish per fisherman per trip. Of course, a good early bird fisherman may catch his limit of eight on Saturday morning to balance your zero score on Sunday afternoon. Managed streams are open two or four days a week on scheduled days each month, either Wednesdays and Thursdays or Saturdays and Sundays. You can get a copy of the schedule by writing the State Game and Fish Commission.

In addition to the mountain streams, trout are also stocked by the Commission in the Chattahoochee River below Buford Dam on Lake Lanier (an eleven-and-a-half-pound rainbow was caught there last year) and the Savannah River below Lake Hartwell and Clark Hill. Trout also have been stocked above the dams in all three reservoirs, and have thrived in Lake Lanier. In addition, several streams in northwest Georgia have been stocked experimentally with trout with promising results.

While most trout streams are closed during the winter, designated stream sections containing some trout are open throughout the entire year. The best of these is the rugged Chattooga River between Georgia and South Carolina. Many trout streams are located on public lands in the Chattahoochee National Forest, only streams located on private land are not open to the public. United States Forest Service campgrounds are numerous in the area, but are crowded on weekends during the summer, as are several state parks in the northeast section.

If you don't mind hiking for several days and sleeping on the ground, there still are small remote native trout streams in North Georgia's rugged mountains that you can fish without fear of seeing another human being. If you're not willing to go that far, try a managed stream limited to artificial lures, like Jones Creek above Dahlonega or Waters Creek. Better still, fish for fun in Noontootley, a catch and release stream.

streams

☐ Before the construction of Georgia's large hydro-electric reservoirs and thousands of farm ponds, the rivers and streams offered the only fishing for most Georgians. This is still virtually the case in extreme northwest and southeast Georgia, where there are no reservoirs and few farm ponds.

Like the reservoirs, there are distinct differences in fishing Georgia's streams. In northeast Georgia, most of the streams are so cold they support only trout. In the northwest, many of them are too warm for trout, but too cold for warm water fish. These streams, like the Toccoa or the Hiawassee, feature fishing for intermediate cold water species like northern smallmouth bass or two other "smallmouth" species, the redeye (Coosa bass), and the spotted bass.

Although rarely caught except by commercial fishermen using trotlines, the Coosa River and its tributary, the Oostanaula, contain sturgeon, the primitive fish that is famous for its caviar. The Coosa and Lookout Creek are the only places in Georgia where freshwater drum are caught, although bass, crappie, and bream are the major species in both streams.

The Chestatee and the Chattahoochee above Lake Lanier are both trout streams, but their lower reaches before entering the lake are good spotted bass streams. The best fishing in these streams is in late summer and early fall.

Middle Georgia's rivers offer fishing that is considerably different from the large lakes. Although they also have largemouth bass, the flourishing crappie and white bass populations found in lakes like Clark Hill and Sinclair are virtually absent. On the other hand, there are more species of game fish (twenty-two) living in the unimpounded rivers. These rivers offer seasonally good fishing for Coosa bass, spotted bass, redbreast sunfish, warmouth, chain pickerel, and channel catfish, either with live bait or lures.

Fishing in all of the middle Georgia rivers improves as one moves south, half of the rivers veering southeast into the Atlantic Ocean, the other half plunging due south across the Florida line to the Gulf of Mexico. Fishing in these streams is better on the average than in most of Georgia's large and small lakes, acre for acre.

An important aspect of stream fishing is the time of year, lending credence to that inevitable phrase "you should have been here last week." The reason for this is that the river has to be "right"; meaning that it won't produce good fishing if it is too muddy, if it's too high, or if it's too low. Since most gamefish are sight feeders, muddy water reduces their ability to see and find the bait or lures. Most south Georgia rivers have fairly well defined channels through a wide, shallow flood plain. If there is a long rainy spell in the spring and the river waters rise out of the normal channel and spread into the thick swamps of the flood plain, the fish also spread and are almost impossible for the fisherman to reach. This flooding actually stimulates fishing in succeeding years, since the fish are fattened up by their expanded food supply and spawn more successfully under these conditions. When the waters drop to normal level, fishing is unusually good, both in the spring, with stained water, usually April or May, and in late summer and early fall, when the rivers are back within their banks, low and clear. The fall is by far the best time for bream, bass, and catfishing. Streams have better fishing in the hot summer than lakes since their temperatures are usually cooler and more uniform.

On the other hand, if the river doesn't leave its banks in the spring, fishing that year and the succeeding year suffers, especially for bream, since the fish are penned in a relatively small and cover free area, where their numbers are reduced by carnivors like bass, chain pickerel, bowfin, and gar. This is especially a problem when bass and bream are forced to nest in the river channel itself, making their eggs and young fry vulnerable to hungry predators.

Of the rivers in middle Georgia, the Flint is the most famous, primarily for the Flint River "smallmouth," a larger than average subspecies of the usually fairly small Coosa bass which reaches six pounds or more in the Flint. The best fishing for it is on the many rock ledge shoals of the Flint near Thomaston, and below the Blackshear Dam on the Flint above Lake Worth. These fighters can be easily caught on artificial lures "when the river's right," either by wading the shoals or drifting the stiller waters in small boats or canoes. Redbreast sunfish fishing is also popular in the Flint and its clear water tributaries, primarly using worms or crickets for bait, although flyrod fishing is sometimes productive. Eddy pools where the river current runs backward are always hotspots, along with backwater sloughs.

In the southeast, the Ocmulgee, Oconee, Altamaha, and the Savannah are more famous for their bass. Thousands of pounds of bluegill bream and redbreast sunfish are caught each year by fishermen from all over Georgia, primarily in the old dead river "runs" or cutoffs where the stream has cut a new channel across an oxbow, leaving a section of still water.

Both the Alapaha and the Suwanee flow out of the Okefenokee Swamp. Virtually a wilderness area crossed by only one highway, U. S. 441 at Fargo, this portion of the Suwanee is a "picture book" scene of dark tea-colored tannic acid waters, swirling lazily along at a scarcely noticeable pace through huge Spanish moss draped cypress trees and large hollow cypress knees which are said to have served as hiding places for Seminole Indians evading white soldiers. The river is so beautiful and unspoiled that it has been proposed as a National Wild River, or as a State Scenic River. Both proposals would give it legal protection against any future dam construction or destructive channelization.

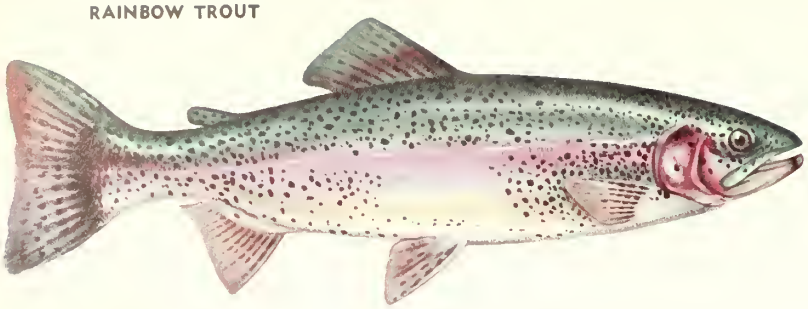
The Suwanee is famous for its larger than average largemouth bass, bluegill bream, warmouth, fliers and chain pickerel (jackfish), along with a vicious primitive throwback, the bowfin (mudfish). These brawlers will strike any underwater lure that isn't being retrieved fast enough, chew the paint off it, bend your hooks, break your line, knock over your tackle box or sink their needle-like teeth into your finger.

Probably the best three major fishing streams in Georgia with the least polluted water are the Ogeechee, the Satilla, and the Saint Marys, which all flow across the sandy lower coastal plain directly into the Atlantic, without the heavy silt load of the larger rivers like the Altamaha which has north and middle Georgia tributaries in the agricultural red clay belt.

Fishing in all three is similar, with largemouth bass and redbreast sunfish the outstanding species. The Saint Marys, the "toe" of Georgia's border with Florida, also has good bluegill and crappie fishing. The Ogeechee probably has the greatest variety, with good fishing seasonally during low and clear water conditions for bream, chain pickerel, and channel catfish.

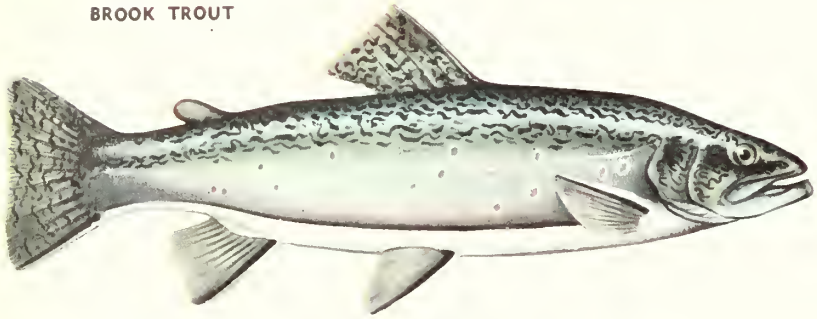
Along with the larger Altamaha and Savannah, these three streams have a small run of saltwater striped bass from November into the Spring. Some are found two hundred miles up the Savannah at a dam just below Augusta, others travel over three hundred miles inland up the Altamaha and the Oconee to the base of Sinclair Dam at Milledgeville.

RAINBOW TROUT



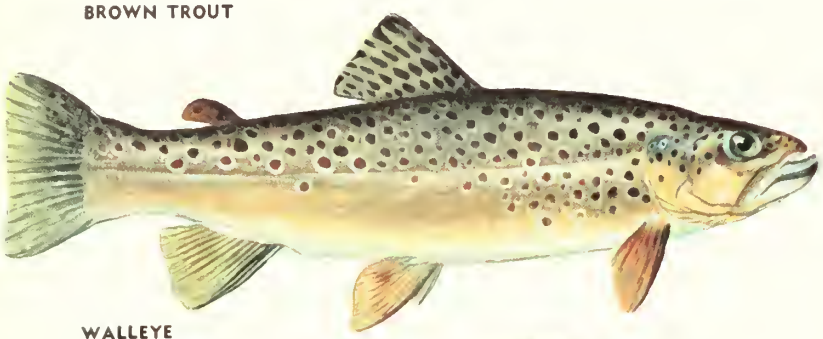
RAINBOW TROUT (Salmo gairdneri) is found only in the mountain streams of north Georgia. They were successfully intraduced in Georgia trout streams many years ago from the Pacific coast and are now the most abundant trout in north Georgia. The rainbow is liberally speckled overall with black or olive spots. It is easily recognized by the broad red lateral band extending onto the cheek. Spawning accurs from February to April, depending on the water temperature. The female fans out a nest with her tail, and after the eggs are fertilized the nest is covered with sand and fine rocks. Rainbow trout feed mostly on insects and small fish. Fishermen prefer worms, crickets, small spinners, or flies for taking rainbow.

BROOK TROUT



BROOK TROUT (Salvelinus fontinalis) is the only trout that is native to Georgia. Locally they are called native trout ar "specs." Brook trout are distributed throughout the range of trout water in north Georgia. They can be distinguished from the other species of trout by the black vermicular or worm-track markings on the upper parts of the body and the white edges on the belly fins. Brook trout spawn in the fall. The female digs a nest with her tail, and when the nest is completed she spawns with the male; then covers the eggs with fine gravel. Food consists of insects and small fish. Of all the mountain trout, brook trout are the most easily caught. Worms, crickets, small spinners, ar flies are preferred by mast fishermen.

BROWN TROUT

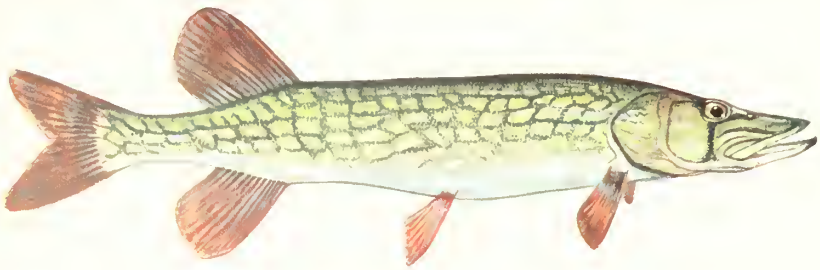


BROWN TROUT (Salma trutta) was originally a European fish. It was introduced in this country many years ago and is naw found widely distributed throughout the range of trout water in narth Georgia. It is best distinguished from other trout by random scattered red spots, and brownish overall color. Brawn trout spawn during the fall in the same general way of spawning exhibited by other mountain traut. Faad consists primarily af insects and small fish. Brown trout are extremely wary and offer a real challenge to trout fishermen. They will strike a wide range of flies and small spinners and are also taken with live bait.

WALLEYE

WALLEYE (Stizastedian vitreum) is found in the lakes and several of the larger streams of north Georgia. This popular game fish has recently been stocked in the cooler, deeper lakes of north Georgia. Its color is gold to brassy, with olive buff; everywhere mottled with black. The under surface is whitish and the jaws have long, sharp teeth. Spawning occurs early at water temperature in the range of 45 degrees Fahrenheit. The eggs are scattered in shallow water over the rocks, gravel, and sand bars. Food consists primarily of other fish. Walleye are much esteemed by fishermen and are usually taken in deep water with artificial trolling lures.

CHAIN PICKEREL



CHAIN PICKEREL (Esax niger) is a species that prefers slow moving streams and warmer waters. It is found principally in the streams and lakes of middle and south Georgia. An excellent game and food fish, it may attain a length of 24 to 30 inches. This species is readily identified by the long slender body and posterior dorsal fin. The general color is grass green with distinct chain markings of black or dark olive on the sides. Spawning occurs in February and March. The eggs are laid in shallow water and left unattended. The chain pickerel is carnivorous, feeding on other fish, tadpoles, insects, and crustaceans. It is an excellent game fish on light tackle, and will hit almost any type of artificial lure or live bait.

BLACK CRAPPIE

BLACK CRAPPIE (Pamoxis nigramaculatus) is one of the most important game fishes of large reservoirs. It is found throughout the state in reservoirs, streams, and lakes. This fish is colored olive green on the back, tapering to silvery white and yellawish on the sides. The body is spotted everywhere with irregular black or dark green spots. It is best distinguished from the white crappie by the dorsal spines which normally number 7-8. Spawning occurs in the spring at a water temperature of 68 degrees Fahrenheit. The nest is built in shallow water, preferably on sand or gravel battom. Food consists primarily of small fish and insects. Black crappie are usually caught fishing with live minnows, around old tree taps or brush piles. Night fishing yields good catches.

The world's record for freshwater caught striped bass, a sixty-three-pound monster, was caught in the Ocmulgee near Dublin.

A second salt water sport fish, the American or white shad, also runs up Georgia coastal rivers in the spring to spawn. The largest run of shad is in the Altamaha River, where they are caught in the nets of commercial fishermen by the thousands. However, shad on the Altamaha are almost impossible to catch on a hook and line, apparently because the water is too muddy for the fish to see the lure. But shad can be caught by trolling in the clearer waters of the Ohoopee, a tributary.

Although muddy water isn't a problem in the St. Marys and the Satilla, there is little fishing for shad in either stream. This can be explained by the fact that there are few local fishermen, and most of them are more interested in catching year-round game fish that are considered more edible, like salt water trout and channel bass, or fresh water bass and bream.

In the Ogeechee from North of U. S. 17 to the mouth of the Cannoochee River, thousands of shad from two to five pounds are taken by anglers in March trolling slowly with small flashing spoons and thin white jigs. Sport fishing for shad continues to be popular further upstream to Statesboro through April.

On the Savannah, the shad fishing hotspot is at the Augusta city limits below the Savannah Bluff Lock and Dam, a barrier against which the fish are halted on their spawning migration.

ponds

☐ Georgia has more than sixty thousand ponds. Most have been constructed for stock watering, irrigation, fishing, swimming, and boating. In addition, there are several hundred municipal water supply and flood control lakes, along with hundreds of old mill ponds once used for powering grist mills. The world's record chain pickerel (jackfish) was caught in one of these in Clinch County near the Okefenokee Swamp. There are few natural lakes in Georgia that have not been created by an old river run or slough or by beaver dams. There are exceptions around Lake Seminole in southwest Georgia and to the east around Valdosta on the Florida line, where several hundred limestone ponds have been formed by the collapse of underground limestone formations.

Fishing in this collection of waters ranges from the finest in the world to the poorest, depending on a wide variety of factors. In a properly constructed pond that is stocked, fertilized, and fished according to the recommendations of fish biologists of the State Game and Fish Commission, an annual harvest of up to three hundred pounds of fish can be produced, year after year. However, most ponds produce little more than one hundred pounds a year. Frequently, they become overcrowded with small bream or crappie because of improper stocking or overfishing for largemouth bass.

While the majority of these ponds are privately owned and closed to the public, thousands of them are open for a small charge, usually a dollar per day per person. Many of these lakes in sections that are not too heavily populated produce good fishing for largemouth bass, bluegill, redear sunfish (shellcracker), and channel catfish. Lakes that are infested with other species not adapted to small ponds, like crappie, carp, and other varieties of bream and catfish, usually go bad within a few years, and generally should be avoided, unless they are of the "put and take" variety where the owner stocks catchable size fish.

As a rule, fishing in municipal water supply lakes, public park lakes, flood control lakes, mill ponds, beaver ponds, and natural lakes is mediocre because of the presence of wild rough fish and a high rate of water flow that does not allow fertilization. There are some exceptions. Seasonally, for a few years, some of them produce excellent fishing. Usually, these are ponds with a healthy largemouth bass population which keeps the smaller species thinned out. Such waters open to the public near large metropolitan areas invariably are quickly overfished.

The best public pond fishing in Georgia is in the State Game and Fish Commission's McDuffie Public Fishing Area, between Thomson and Augusta. There are fifteen small lakes totaling one hundred acres in the area, and all are easily accessible for bank fishing. Small boats with electric motors may be used. The ponds are all heavily fertilized and well stocked with largemouth bass, bream, and channel catfish. Fishing is usually best in April and May. There is a campground and picnic tables available to fishermen paying the one dollar per day per person fee. Rock Eagle Lake near Eatonton is also a good public fishing area for bass, bluegill, and shellcracker.

reservoirs

☐ In the area north of Atlanta, there are two distinctly different sets of reservoirs: the cold water string of Tennessee Valley Authority (TVA) and Georgia Power Company lakes, and the warmer and larger U. S. Army Corps of Engineers reservoirs. Although some of Georgia's best reservoir fishing is in the Northeast Georgia mountains, you can't prove it by local fishermen, who, for some reason known only to themselves, still prefer stream fishing for trout to the lunkers of the big lakes. And, since newer and larger lakes have been built between the mountain reservoirs and Atlanta, these gems of the Blue Ridge have been virtually abandoned by fishermen.

The three northernmost lakes are part of the Tennessee Valley Authority chain. Chatuge is still well known as one of the best smallmouth and largemouth bass lakes in Georgia, especially in April and May, and again in October and November. Crappie fishing is good in March and April, as it is in most Georgia reservoirs. Occasionally, big bream are also taken. Georgia's record smallmouth, a six pounder, was landed at Chatuge in 1968, the same year the state record flathead catfish was caught by an angler trolling a bass plug. Few trout or walleye are found in the lake. While part of Chatuge is located in North Carolina, your Georgia fishing license is good for the entire lake.

Nottely, to the west, is the shallowest of the mountain lakes. It is a good largemouth bass and crappie lake. Smallmouth bass, walleye, trout, and white bass are present but not plentiful.

Blue Ridge (near the town of the same name) has been a popular largemouth and smallmouth bass lake since it was built in 1930. Walleye are plentiful there. It produced an occasional northern muskelunge up to sixty-nine pounds, but no catches have been reported since 1957. Crappie and bream fishing is good. Trout stocked at the rate of two fish per acre in the 3,320 acres of deep cool water are showing good results.

On the Savannah River drainage, the Georgia Power Company has constructed five dams, four on the Tallulah River and one at the fork of the Tallulah and the Tugalo River. While lakes Seed, Tallulah, and Tugalo are small, all three are as beautiful and as deep as their larger cousins, Lakes Burton and Rabun. All five have trout in them, and lunkers aren't too uncommon, especially in Lake Burton. While some native trout are found in all five reservoirs, Burton, Seed, and Rabun are currently being stocked by the Game and Fish Commission.

Walleye have been introduced to help curb an overpopulation of yellow perch, usually about the size of a cigar. Only in 2,775-acre Lake Burton do the yellow perch reach catchable size of a pound or two, but few fishermen know how to catch them. Walleye have also fared best in Burton, where the state record, an eleven-pounder, was landed. Fishing for walleye is best in March when the long bronze-green fish move up the Tallulah River to spawn. Burton fishing is best at the mouths of its main tributaries and at the dam. April through May and September and October are the best months at all five lakes. There are no launching ramps on Seed and Tugaloo, which are located in rugged gorges, but public access is good on Burton and Rabun, especially through the fish camps.

Since 1949, the mountain lakes have

been eclipsed in popularity by the construction of the Corps of Engineers' giant Allatoona, Lanier, and Hartwell reservoirs. The oldest of the three, Lake Allatoona, is still one of the finest white bass fishing lakes in Georgia, especially on the March and April spawning run up the Etowah River toward Canton. "Jump" fishing for schooling white bass in the summer is also good. Allatoona has the distinction of being the only lake in Georgia and one of a few in the United States that has a predominant population of spotted bass rather than largemouth. This scrappy fighter has a small mouth, and is frequently mistaken for his cold water northern cousin of the Tennessee Valley streams. A six pounder is the official record, but larger fish have been reported on Allatoona's 11,900 acres. October is the best month for bass, followed by March, April, and May. Crappie fishing is good in March, April, October, and November during the day, but the best crappie fishing of all is at night in the summer months, using a light to attract bait fish.

Although Allatoona is the only large reservoir located in northwest Georgia, the upper end of Alabama's Lake Weiss extends a few miles into Georgia via the Coosa River to just below Rome. Mayo's Lock and Dam presents an impassable barrier at this point to fish moving upstream, producing huge catches of crappie in March and April, along with some walleye in February.

Lanier is the most popular fishing and boating lake in the entire Corps of Engineers national chain of reservoirs, averaging more than eight million visitors a year. Its largemouth bass fishing has been famous for years. The Lanier record is a seventeen-pound, nine-ounce tackle buster, caught on a plug in the middle of December, 1965. While some of the biggest bass are caught in the dead of winter, the most fish are caught in late April, May, and June. Submerged islands and points are the best bets. Crappie and white bass fishing is best in March, April, and May. Small minnows are the best crappie bait. White bass weighing two or three pounds are fairly common in the 37,000-acre lake, especially in the spring spawning run up the Chattahoochee and Chestatee Rivers. The two state records of four pounds, fourteen ounces, were both caught in Lanier. The newest addition to Lanier's attractions is trout fishing, with more than 100,000 ten-inch trout being stocked there in the winter. By May, these fish grow to two pounds. Rainbows over seven and a half pounds have been landed. The best results are in April, May, and June. Trolling is most effective during the day, and nightcrawler worms or other natural bait produce the best results at night. In the summer months, trout concentrate in the lake from the dam to six miles upstream at Brown's Bridge. As in most deep reservoirs, bream fishing is poor. Walleye and smallmouth bass have been stocked, but few catches have been reported.

Hartwell is presently one of the two newest and hottest bass fishing lakes in Georgia. The state record white crappie, a four-pound, five-ounce monster, was caught in the 38,000-acre reservoir in 1968. White bass fishing is good, and there is a good run of walleye up the Tugaloo River above the lake in late February or March. A Georgia fishing license is good on the entire lake, except the South Carolina bank and tributaries.

MIDDLE GEORGIA RESERVOIRS

☐ The most popular middle Georgia reservoir is the giant Clark Hill, a 78,500-acre "Inland Sea" that is thirty-nine miles long. It stretches from twenty-two miles above Augusta deep into both Georgia and South Carolina. When it was new, Clark Hill produced superb bass fishing, and results have continued to be good over the years, which is unusual for a seventeen-year-old lake.

In addition to largemouth bass, Clark Hill has become noted for white bass fishing. Tremendous catches are made each year on the shoals of Little River where the spawning bass congregate in March, April, and May. Small yellow or white lead headed hair jigs are the most popular lures, but minnows sometimes produce better results, especially if the water is unusually muddy. Crappie fishing is good, primarily in March, April, and May, with good results at night in the summer. Trout and striped bass also have been stocked, but results have been disappointing.

Further west, near Eatonton, is 15,350-acre Lake Sinclair, the largest Georgia Power Company reservoir in Georgia. Once the best bass fishing spot in Georgia, Sinclair's fishing has followed the pattern typical of hydroelectric reservoirs, rising to its peak during the first eight years and then sharply declining.

Sinclair has continued to produce good white bass fishing, although it has followed a cyclic pattern of slumps and peaks over the years. Most white bass caught there this year will average a half a pound in size, but catches in following years should be much bigger. The best results are obtained during the spring spawning run. Thousands of fish are caught on the shoals of the Oconee River at the upper end of the lake, above Georgia Highway 16 between Eatonton and Sparta. Little River and Murder Creek also have good spawning runs. Crappie fishing is exceptionally good most years.

Before the construction of the newer and larger reservoirs, Lake Jackson between Atlanta and Macon was Georgia's most popular lake. Neglected for years, it recently returned to popularity as one of the state's best crappie fishing lakes. The sudden upsurge in crappie fishing followed two years after a new food fish for crappie and bass, the threadfin shad, was stocked in the lake by the Game and Fish Commission. Unlike its look-alike, the gizzard shad, the threadfin never gets too large for a big crappie or a largemouth bass to eat. Since 1966, catches of crappie weighing an average of a pound each haven't been unusual, with thousands of crappie over two pounds in size being taken. While this initial fish population explosion has been reduced by heavy fishing, crappie fishing is still good in Jackson compared to other reservoirs in the state. Small minnows are the best bait. March is the best month, but April and May are also good.

Jackson produces large bass, although it is not noted for large numbers. A special twelve-inch size limit has been placed on bass there to help improve fishing. A report by creel checkers on the lake showed that fishermen released eight thousand bass in three months. Although white bass have been repeatedly stocked in Jackson, they have never become as etsablished there as they have in the other major reservoirs, perhaps because of illegal netting of the spawning fish running up tributary streams in the spring. Catfishing with a hook and line is good on Jackson, especially in the tributary South River, Yellow River or Alcovy River.

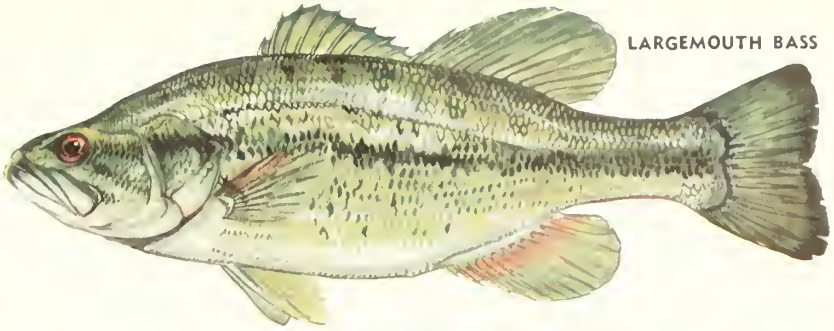
Further to the west on the Alabama line, three Georgia Power reservoirs north of Columbus stretch in a row: Bartletts Ferry, Goat Rock, and Lake Oliver. While fishing in all three lakes has been excellent in the past, despite muddy water conditions after heavy rains year round, biologists rate fishing at present as only fair for bass, white bass, crappie, bream, and catfish, although large catches are made during short periods in the spring when fish congregate below the Bartletts Ferry and Goat Rock dams.

Fishing is sometimes good below the Phenix Eagle Dam in Columbus, upstream from Walter F. George Reservoir. A novelty species caught there in the spring in addition to bream, crappie, catfish, and white bass is the Alabama shad, a bony fish that displays considerable acrobatic ability on light tackle, taking small silver spoons or white jigs.

SOUTHWEST GEORGIA RESERVOIRS

☐ Just south of Columbus is Georgia's best fishing reservoir of the moment, with the possible exception of Lake Hartwell. Called "Walter F. George Reservoir" by the Corps of Engineers, after the dam named for Georgia's famous Senator, the lake never has been officially named by Congress. Alabamians call the reservoir "Lake Eufaula" after nearby Eufaula, Alabama. Some Georgians insist on the name "Fort Gaines," for the Georgia town. Others like "Lake Chattahoochee," after the river.

LARGEMOUTH BASS (Micropterus salmoides) is truly the king of Georgia game fish. The world's record largemouth bass was caught in Georgia and they are found throughout the state in warm water streams and lakes. This species is readily distinguished from the other bass by the large mouth, which extends beyond the eye, and the spinous dorsal fin is almost completely separated from the soft dorsal fin. Young fish are characterized by a dark lateral band. Largemouth bass spawn in the spring, from March through May at water temperatures of 60-70 degrees Fahrenheit. Large females may lay up to 40,000 eggs. Food for the largemouth bass consists primarily of small fish, insects, crayfish, small turtles and frogs. They are readily taken on artificial lures or live bait.



LARGEMOUTH BASS

SMALLMOUTH BASS (Micropterus dolomieui) is found only in extreme north Georgia in the cool, clear streams and lakes. In this species the mouth does not extend past the eye and the color is a uniform olive brown with distinct bars on the side of the body. The spinous dorsal fin is well connected to the soft dorsal fin and scales are present on the base of the fins. Spawning occurs in the spring at a water temperature of 65-70 degrees Fahrenheit. Their food consists primarily of other fish, insects, and crayfish. Smallmouth bass are rarely caught in large numbers, but they are a highly sought game fish. They will readily strike a wide range of artificial lures and live bait.

SMALLMOUTH BASS

WHITE BASS (Roccus chrysops) has recently been introduced in most of the reservoirs of the state. It is a strikingly colored black and white fish. It differs from the striped bass in having the back considerably arched (see picture), and a slightly larger eye. White bass rarely exceed four pounds in weight. Spawning occurs from March to the middle of May. During spawning, white bass form large schools and move up the rivers to spawn. It is a prolific spawner and may lay a million eggs or more. Young fish return down stream to the lake during the summer. Food consists of insects and fish. White bass readily strike artificial lures and fishing is best during the spring spawning run.

WHITE BASS

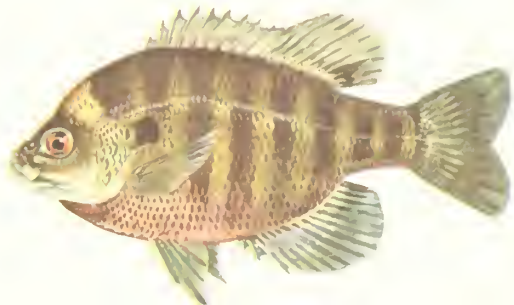
STRIPED BASS (Roccus saxatilis) sometimes called Rock Fish, live in salt water ascending fresh water streams to spawn. It is found in the Savannah, Ogeechee, Altamaha, Oconee, Ocmulgee, Satilla, St. Marys, Flint, and Chattahoochee Rivers, and is landlocked in Lake Seminole and Clark Hill. Specimens have been taken on spawning runs over 150 miles from salt water. Striped bass spawn in running water and the eggs hatch, floating downstream. Young fish usually return to salt water the same year except when stopped by impoundments. Best fishing occurs during the spawning run. This species is prized by anglers and individuals over 50 pounds are frequently taken. Bait most commonly used is large shad or eels.

STRIPED BASS

CHANNEL CATFISH (Ictalurus punctatus) is important both as a commercial and sport fish. It is widely distributed in streams and lakes throughout the state. Its color is silvery olive or slate blue above with roundish black spots. The tail is deeply forked. Spawning generally takes place when the water temperature reaches approximately 75 degrees Fahrenheit. Eggs are laid under overhanging ledges, hollow logs or similar shelter. Spawning is in running water. Food of the channel catfish is varied, consisting of all manner of plant and animal life. It is a good fighter on light tackle and may be caught with a wide range of bait. Because of its night feeding habits, channel catfish are readily taken at night with trot lines.

CHANNEL CATFISH

BLUEGILL (Lepomis mocrochirus) is probably the most popular of all the bream in Georgia. It is found throughout the state in steams, lakes, and ponds. Bluegill typically have a deep, short body and the gill flap is wide and entirely black. The belly is coppery red in old specimens and during spawning Bluegill can usually be distinguished from other sunfish by a dark blotch at the base of the soft dorsal fin rays. Spawning occurs all during the summer when the water temperatures reach 80 degrees Fahrenheit. They nest in groups and supply excellent fishing at this time. Food consists of aquatic insects, insect larvae and some plant material. Best baits for Bluegill are worms and crickets, however, they will readily strike artificial flies.



BLUEGILL

Regardless of what they call it, fishermen agree that its fishing is great for largemouth bass and crappie. While the largest bass caught there haven't reached the ten- to fifteen-pound proportions they grow to in older reservoirs like downstream Lake Seminole, they are more numerous from the standpoint of average catch. Fishery biologists expect 1969 to be a peak year for fishing in the 45,000-acre, eighty-five-mile long lake.

Although they were not stocked there, white bass from above and below the reservoir have populated the lake. March and April are the best months for bass, white bass, and crappie fishing. Bass are found in the deepest parts of the lake near shallow water. Your Georgia fishing license is good on both sides of the lake between Alabama and Georgia, up tributaries and on the bank on either side of the impounding water. Creel limits for fish are the same in both states, but Alabama requires all motorboats to be registered.

Just south of there at the corner of Georgia and Florida is one of Georgia's most famous lakes, Seminole. While its popularity has declined because of the new reservoirs, age and the usual decline in fishing, Seminole still produces as many lunker bass as any reservoir in the State. Bass from ten to fifteen pounds are not uncommon. Crappie fishing is good, as well as bream and chain pickerel. Striped bass have been stocked in the lake, and have been caught at weights up to five pounds. Because the moss-draped trees were never cleared from most of the lake, Seminole is dangerous for speed boats and water skiing, which suits fishermen just fine. Its southern location makes it the first lake in Georgia to produce good bass fishing each year, usually as early as February. White bass make a spawning run up both the Chattahoochee and the Flint Rivers beginning in March. In addition to a State Park, there are a number of Corps of Engineers camp grounds, picnic areas, and launching ramps around the lake. Fish camps are plentiful.

Just upstream from Seminole at Albany is Lake Worth, a small Georgia Power Company reservoir of 1,500 acres. Fishing is good, but hampered by heavy motorboat traffic, especially on weekends.

Above Lake Worth is the Crisp County Power Commission's shallow 8,515-acre Lake Blackshear. It is located primarily on farm lands away from urban areas, and few fishermen go to Blackshear although it is one of Georgia's better fishing lakes. Records of the Game and Fish Commission show that it ranks just behind Seminole as a bass lake, while it is the State's number one bream fishing lake, with good crappie and white bass fishing. Blackshear has been heavily stocked with saltwater striped bass by the State Game and Fish Commission.

the okefenokee

☐ The Okefenokee Swamp, the "Land of the Trembling Earth" is Georgia's most famous fishing spot. The Swamp is a great shallow depression or basin which was once under the ocean. As the sea receded, the swamp remained as a large saltwater lake which gradually became fresh. Poor drainage from this low area kept the Swamp wet except in unusually dry years. However, a five-mile long dam or "sill" has now been constructed across the lower end of the swamp to hold water in the deeper areas of the swamp permanently.

There are a few islands in the swamp named after its former Seminole residents, like Billy's Island and Minnie's Island. Most of the swamp "land" though, is actually peat, formed from the submerged remains of swamp grasses and weeds. Many of the large cypress trees are rooted in this peat. Usually, the accumulations of peat are actually floating in the swamp's waters. The unwary visitor who tries to walk on one of these islands may find himself eyeball deep in the "ground," splashing around in the water and roots beneath the island. Hence the name Okefenokee, or trembling earth.

The swamp is a strange, mysterious, and beautiful place. Year round, its moss draped cypress trees beckon to thousands of adventurous explorers. In the spring, its vast grassy savannahs or "prairies" are blanketed by beautiful wild flowers, as far as the eye can see. In the fall, the autumn hues of small bushes and tiny tree leaves tinge the rugged beauty of the swamp with a delicate brush.

Although the swamp is a National Wildlife Refuge, fishing is allowed under State regulations and it remains one of the most popular spots in Georgia. Fishermen from all over the United States, as well as the surrounding counties, can vouch for its good fishing.

The most common gamefish of the swamp is the warmouth, a "bream" of the sunfish family that has a disproportionately large mouth, and is dark, almost black in color. Although they are found in small numbers in most Georgia lakes and waters, they are most prolific in the Okefenokee. The most popular bait for warmouth is small crawfish.

The swamp is widely known for lunker bass fishing, but the most common gamefish that will strike an artificial lure is the ferocious chain pickerel, or jackfish as they are locally known. The angler who caught the world's record bass claims it didn't fight any harder than a jackfish a third its size. Most fishermen who have caught one would agree. The jackfish has an excellent flavor, but is somewhat bony. Jackfish prefer shiny lures like those with a spinning blade and bright red and yellow feathers.

Another fish that prefers the same type of lure is the husky bowfin, who is right at home in the still, shallow waters of the swamp. The state record, a fourteen-pounder, was taken from the Okefenokee. Although some natives disagree, bowfin aren't usually considered good to eat; but then, neither are tarpon or bonefish, two other popular fighters.

There are only three public access points to the Swamp. On the southwest side, the Stephen Foster State Park at Fargo, off U. S. 441 offers fishermen everything they need, including boat and motor rental, launching ramp, gasoline, groceries, bait, camping and cabins or dormitory space. To the north, fishermen can enter the swamp through the facilities of the Okefenokee Swamp Park at Waycross, a privately operated facility with boats, etc., but no lodging facilities. Camping is allowed in nearby Laura Walker State Park, and motels are plentiful in Waycross. On the southeast side, the U. S. Bureau of Sport Fisheries and Wildlife has constructed an excellent visitor's access facility known as Camp Cornelia with boats for rent, etc., near the main north-south route of U. S. 301 through Folkston, just a few miles off of U. S. 17 and the new I-95. Motels and restaurants are plentiful on all three routes.

Only motors of ten horsepower or less are allowed in the Swamp, and fishermen cannot remain in the Swamp overnight. While a guide is not necessarily required, you must stick to marked boat trails unless you have one.

The Okefenokee also is the home of more than two hundred varieties of birds and more alligators and bears than are found in the rest of the State. Although bears are rarely seen, alligators are commonly seen sunning on logs or swimming at the head of a "V" shaped ripple in the water. They feed primarily on snakes, turtles, and rough fish like bowfin and gar, and do not disturb fishermen in boats, except to borrow an occasional fish.

☐ More than a thousand miles of shoreline, interlaced with hundreds of saltwater creeks, rivers, sounds, and marshes, is the undiscovered giant of the Georgia fishing world. Each year, thousands of northern fishermen zip past the coast at sixty miles an hour on their way to Florida. Few of them realize that they could probably catch as many fish in Georgia, and with less competition from other fishermen. It has been accurately said that something is always in season on the Georgia coast. The angler who knows when and where to fish has found this out for himself. The newcomer would be wise to learn from a native, perhaps by hiring a guide for his first few trips.

While fishing is good year round for some species, October, November, July, and August are probably the four best months of the year. Winter trout or speckled sea trout generally bite best in November and December on live shrimp. Trout fishing is best over submerged oyster beds or bars at high tide.

Channel bass fishing using dead shrimp or cut bait is best in October or November inshore over oyster bars at the edge of the marsh grass at high tide. Inshore bass run from two to ten pounds, while bass in the sounds and off the beaches run from ten to thirty pounds.

Trout and bass fishing are both popular because of the large numbers of fish caught, and because they can be caught close to shore from small outboard fishing boats. These same features make summer fishing popular for sheepshead, drum, flounder, croker, and whiting. They usually are caught by fishing on the bottom near old pilings or docks inshore or offshore around old wrecks. The one to four-pound sheepshead is difficult to hook, because it has a hard mouth and takes the bait cautiously and slowly. Fiddler crabs and pieces of shrimp are the best bait. Freshwater fishing tackle or light saltwater rods and reels can be used for all the inshore species.

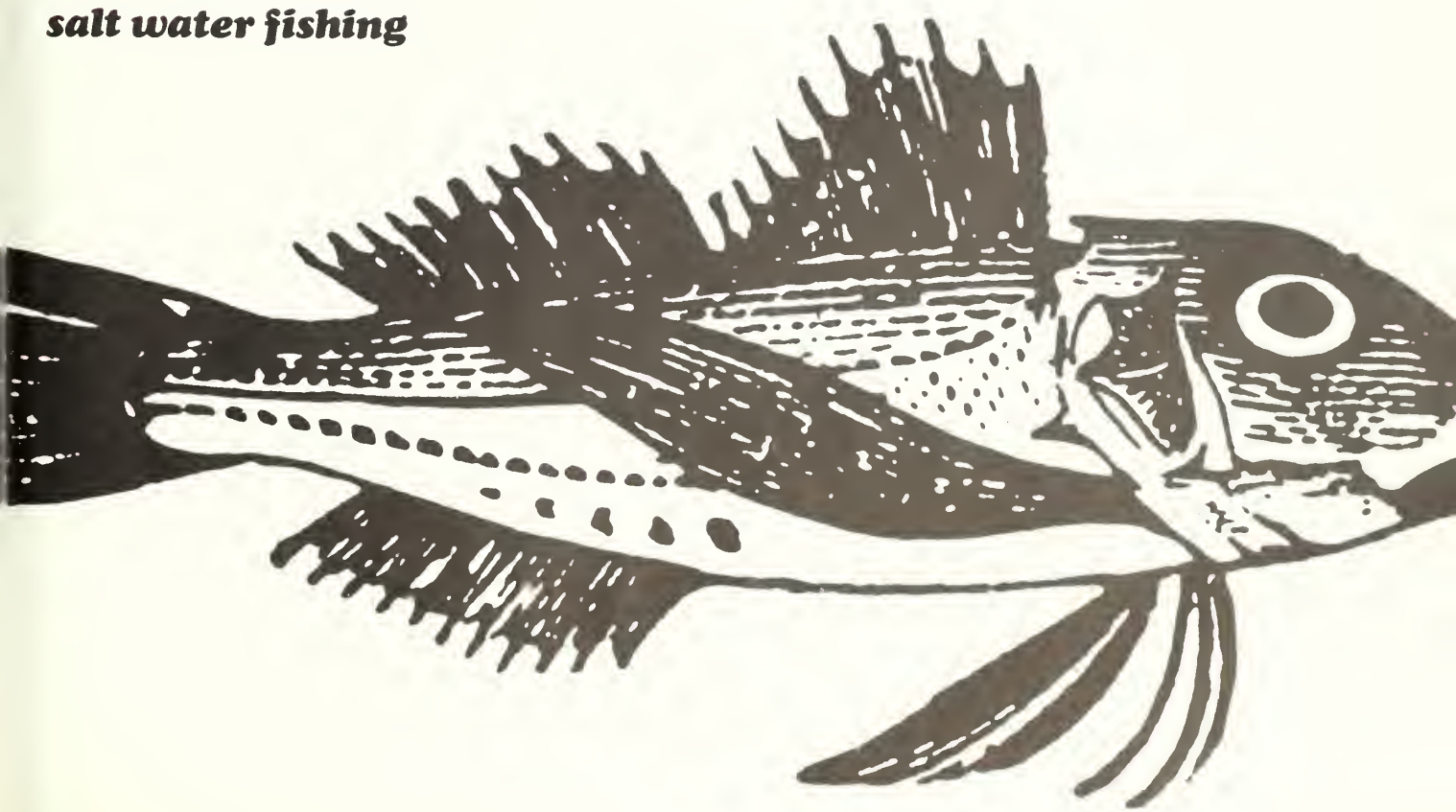
The most exciting fishing from a small boat on the Georgia coast is trolling or casting for tarpon, which often weigh more than a hundred pounds. There are several locations where tarpon congregate during July and August, but the hot spot is "the Tarpon Hole," a two-mile-long channel in the Altamaha River east of the U. S. 17 bridge. Hundreds of tarpon enter the area once a day at high tide, then return to the sound as the tide receeds. The best results are obtained by fishermen slowly trolling large red and white "broken-back" plugs.

For the adventurous sort, there are two types of offshore fishing, in July and August, when huge schools of voracious Spanish mackerel and bluefish move up the Gulf stream from the Bahamas. They also are caught five or six miles from shore and in the mouths of the bigger sounds between the offshore islands by fishermen trolling with small silver flashing spoons for bait.

An occasional king mackerel, cobia, or dolphin are taken within seven miles from shore, but the best results for these species are obtained forty miles or more from shore, in the Gulf Stream. Larger offshore trolling boats take king mackerel, dolphin, bonita, small tuna, amberjack, barracuda, and even an occasional sailfish. Heavy saltwater trolling tackle is required for these fish.

There are a fairly large number of fish camps and marinas on the Georgia coast, some with restaurants and motels. In addition, facilities are good on nearby U. S. 17, the main coastal north-south route. Most of these businesses have boat lifts. Many of them rent boats and motors and recommend guides; a few will even make offshore trips after big game fish. There are no limits on the number of fish caught in saltwater, and no fishing license is required.

salt water fishing



record catches

Georgia
State Records — World's Record

BASS, FLINT RIVER SMALLMOUTH
6 lbs 5 ozs —James Lewis,
Cordele, Flint River,
Feb 20, 1967 — No Record

BASS, LARGEMOUTH
22 lbs. 4 ozs —George Perry,
Brunswick, Montgomery Lake,
June 2, 1932 World's Record — Same

Second—17 lbs 14 ozs ,
Nickie Rich, Marietta,
Chastain's Lake, April 27, 1965

Third—17 lbs 9 ozs ,
Emory Dunahoo, Gainesville,
Lake Lanier, Dec. 19, 1965

BASS, SMALLMOUTH
6 lbs 2 ozs —Robert Parson,
Hiram, Lake Chatuge,
July 2, 1968 — 11 lbs 15 ozs

BASS, SPOTTED
6 lbs —Elton Elrod,
Cartersville, Lake Allatoona,
Feb 11, 1967 — 8 lbs

BASS, STRIPED
63 lbs 0 oz.—Kelly A Ward,
Dublin, Oconee River,
May 30, 1967 — Same

BASS, REDEYE (COOSA)
2 lbs 10 ozs ,
John R. Cockburn, Jr , Dalton,
Jacks River, July 4, 1967 — No Record

BASS, WHITE
4 lbs 14 ozs —Albert Pittman,
Gainesville, Lake Lanier,
Jan. 11, 1966 — 5 lbs 2 ozs.

4 lbs , 14 ozs.—Clyde Vaughan,
Canton, Lake Lanier,
March 26, 1968

BLUEGILL
2 lbs 8 ozs —Lee Berry,
Milledgeville, Altamaha
River, Sept 29, 1965 — 4 lbs 12 ozs

BOWFIN
14 lbs , 0 ozs.—Randall Lee Brown,
Lake Park, Okefenokee Swamp,
May 5, 1968 — No Record

CARP
35 lbs. 6 ozs
Albert B Hicks, Sr , Atlanta,
Sweetwater Creek,
April 17, 1967 — 55 lbs. 5 ozs

CATFISH, CHANNEL
No Official State Record — 57 lbs

CATFISH, FLATHEAD
29 lbs , 0 ozs —James Chastain,
Marietta, Lake Blue Ridge,
May 21, 1968

CRAPPIE, BLACK
4 lbs. 3 ozs ,
Kenneth Matthew Kirkland,
Jonesboro, Lake Jodeco,
April 30, 1967 — 5 lbs

CRAPPIE, WHITE
4 lbs , 4 ozs —Charles McCullough,
Decatur, Lake Hartwell,
April 27, 1968 — 5 lbs 3 ozs

GAR, LONGNOSE
No Official State Record — 50 lbs 5 ozs.

MUSKELLUNGE
38 lbs.—Rube Golden, Atlanta,
Blue Ridge Lake, June, 1957 — 69 lbs 15 ozs

PICKEREL, CHAIN (JACKFISH)
9 lbs. 6 ozs.—Baxley
McQuaig, Jr , Homerville
Feb , 1961, World's Record — Same

SAUGER
No Official State Record — 8 lbs 5 ozs.

SUNFISH, REDBREAST
No Official State Record — No Recor

SUNFISH, REDEAR (SHELLCRACKER)
2 lbs 12-1/2 ozs.—
Bill Crabb, Marietta,
Private Pond, Cobb Cnty
Aug 26, 1968 — 4 lbs. 12 ozs

TROUT, BROOK
2 lbs. 1 oz.—Jay Tipton,
Smyrna, Toccoa River,
April 1, 1967 — 14 lbs. 8 ozs

TROUT, BROWN
18 lbs., 3 ozs
William M. Lowery, Marietta,
Rock Creek, May 6, 1967 — 39 lbs. 8 ozs

TROUT, RAINBOW
12 lbs. 4 ozs.—John Whitaker,
Ellijay, Coosawattee River,
May 31, 1966 — 37 lbs.

PERCH, YELLOW
No Official State Record — 4 lbs. 3-1/2 ozs

WALLEYE
11 lbs.—Steven Kenny,
Atlanta, Lake Burton,
April 13, 1963 — 25 lbs.

Dear Sportsman:

This book has been written by the staff of the State Game and Fish Commission in cooperation with Atlanta Magazine to help you find Georgia's best fishing spots.

The information on where to go, when, and how to catch fish in Georgia is a result of many years of experience of Georgia's dedicated fisheries personnel and wildlife rangers. Increasing the enjoyment that fishermen find on Georgia's magnificent lakes, streams, and coastal waters is a primary goal of the State Game and Fish Commission.

This publication is a small token of our appreciation to you and your fellow sportsmen for your support of these efforts in the past, as well as the future.

Good luck, and good fishing!

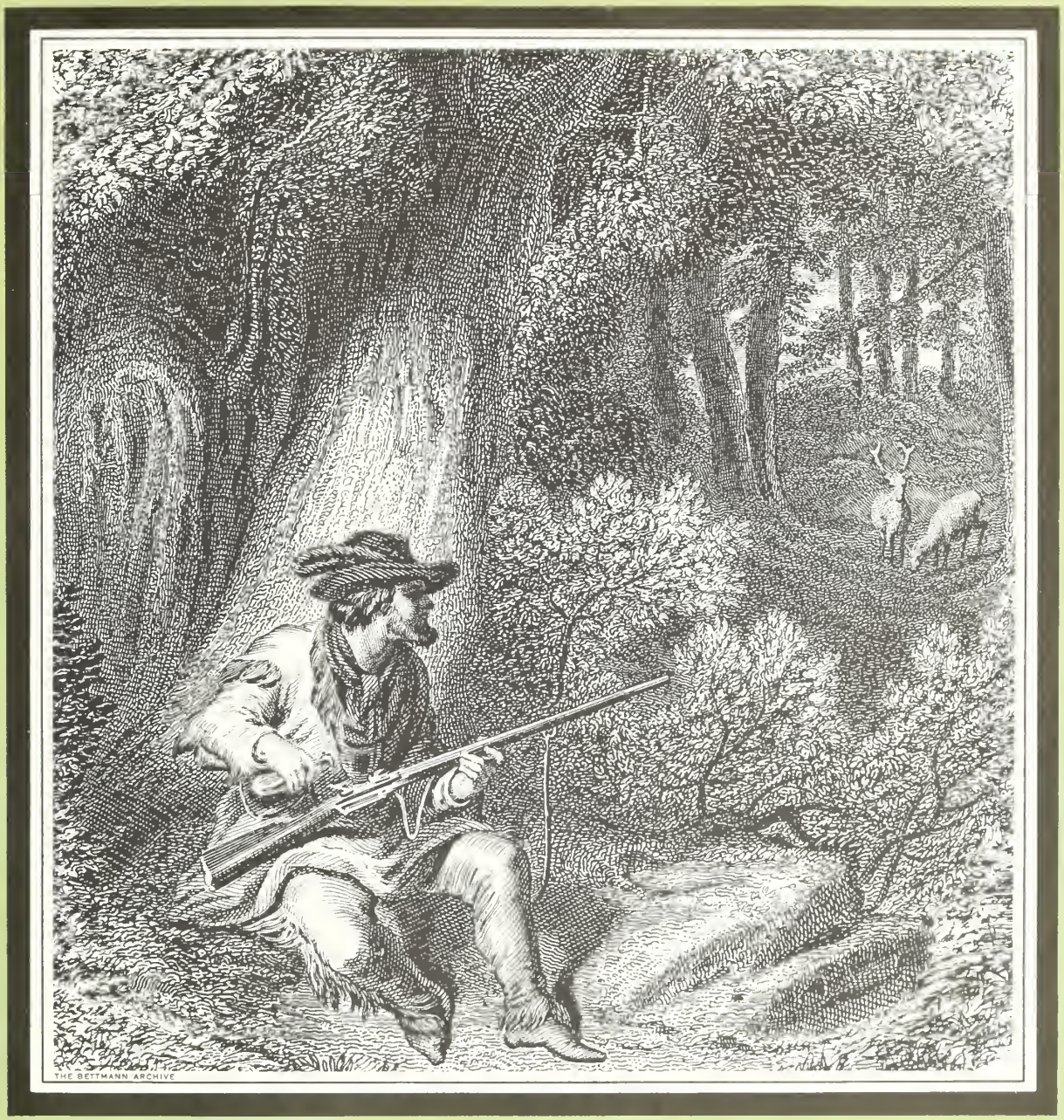
Sincerely,

George T. Bagby

George T. Bagby,
Director,
State Game and Fish Commission

The Atlanta Magazine

GUIDE TO HUNTING IN GEORGIA



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JACK LANGE

INTRODUCTION

THOUSANDS of years before the arrival of the white man, primitive peoples who lived on the land that is now the largest state east of the Mississippi River were making their living by hunting and fishing. The wildlife that they hunted included buffalo and elk, species that most Americans think of as western animals. Although the small woods buffalo who lived on the abundant river cane of the streams and swamps soon disappeared with the elk under the heavy hunting pressure caused by the white man's arrival, white-tail deer continued to be an important source of table meat and hides for both Indians and white men for more than 200 years, until they too were finally wiped out in most parts of Georgia.

Half a century later, the deer have made an amazing comback. Once again, they are abundant throughout the state and on some of the coastal islands like Cumberland, where Georgia's founder, General James Oglethorpe, built his hunting lodge on what had been the Indians' favorite game preserve.

Like all of the Southeastern states that border on the sea and that share the same alteration of terrain from coastal plain to Piedmont to mountains, Georgia is a wildlife paradise with an amazing variety of species: squirrel, deer, quail, rabbit, dove, duck, turkey, bear, wild hogs, grouse, woodcock, geese, coots, marsh hens, mink, muskrat, otter, skunk, turtles, snakes, frogs, salamanders, and hundreds of species of birds of every size, shape, and color.

Northerners who come to Georgia are amazed by its long hunting seasons and liberal bag limits. For example, some of the best deer hunting states of the North have a season of only a week or two, and hunters are often not allowed to kill more than one deer a season. But in Georgia, some areas are open more than two months, with a bag limit of two deers, frequently including does.

Perhaps because Georgia's mixed habitat and large undeveloped land area provides its people with an ample amount of wildlife and hunting lands, attitudes here toward conservation and game laws are lax. Southerners have a relatively tolerant attitude toward poaching and game law violators which is reflected in the low fines and suspended sentences handed out by judges and juries. In Northern states the need for a more restrictive attitude toward game law violators that is shared by sportsmen is reflected in more stringent law enforcement. For example, for killing a hen pheasant, a violator can have his gun confiscated, be given a stiff fine, and actually locked up in many states. Deer or turkey poachers are treated even more harshly.

Although Georgia spends far less on

game management and wildlife law enforcement than the Northern states, its large area and low population density produce an abundant crop of wildlife that smaller, more heavily populated states would mortgage their state capitol's to buy.

Georgia, with 37 million acres, is in a commanding position to become the hunting and fishing capitol of the entire Eastern United States, if enough of its relatively unpolluted streams, lakes, and green areas of forests, swamps, and marshes can be saved from the growing demands of the future. This becomes more true as Georgia's sister states to the north finish destroying their natural environment with rampant strip mines, uncontrolled industrial and municipal pollution of the air and water, and other thoughtless assaults. Already these same destructive forces are being felt in Georgia and other Southern states, but today there is still time to halt unwise or unnecessary development.

During the last twenty years, the most successful and farsighted program that Georgia's game managers brought to virtual completion is the restoration of deer to all of Georgia's 159 counties. Either-sex archery hunting is allowed in all the counties open for deer hunting with guns, and special either-sex hunting was allowed with firearms for the 1968-69 season in all or portions of twenty-eight counties, not counting either-sex hunts on state and federal game management areas. Georgia's deer restoration program has become an example for all of the other Southeastern states. Its success is due to the marriage of hard work and the realization that land use patterns in Georgia have been rapidly changing from open agricultural areas where farm game species like quail, rabbit, and dove flourish, into dominant forests where species like deer, squirrel, turkey, and wood duck are favored by the habitat. Georgia's game biologists believed by concentrating their efforts on deer restocking, management, research, protection, and hunting area availability, they could make their greatest contribution to sportsmen. Their decision has been proved the correct one, although many quail, dove, and rabbit hunters at the time didn't understand why the State Game and Fish Commision didn't spend more time trying to improve hunting for farm game species on the new forest areas, an effort that would have been as effective as sweeping back the Atlantic with a broom.

Many sportsmen have failed to grasp the biological fact that big game species like deer and turkey require man's assistance to repopulate areas where they have been exterminated, while most typical farm game species are difficult, if not impossible to wipe out over a large area by overhunting. As long as food and cover requirements for small game species are present, their large native breeding population will move into any suitable area that can support more birds or animals. This is the reason that stocking quail, rabbit, raccoon, or fox is a waste of time. And research projects have clearly established that stocking pen-raised species such as quail or turkey that are already present in an area is a waste of money because of the low survival rates in the wild.

Georgia's third major category of game are the wetland species, which include waterfowl like ducks and geese, marsh hens, and damp-area species like woodcock, along with mammals such as canecutter and marsh rabbits, raccoons, and other species usually thought of as furbearers of importance to commercial trappers, like mink, muskrat, beaver and otter. The ranges of these wetland species frequently overlap with the forest game species who use the swamps and marshes as escape cover from predators, as well as feeding on mast of hardwoods that are common in freshwater swamps and along streams.

Generally speaking, the future of wetland species seems dim, especially for migratory waterfowl that nest in Canada. There the breeding and nursery ponds are rapidly being drained for wheat production, and at the same time feeding and resting swamps are being drained in Georgia and the other Southeastern states, and natural stream beds are being dredged for agricultural flood control, while large hydroelectric reservoirs flood thousands of acres of once good duck swamps and streams.

The only bright spot in this drab picture is caused by an industrious little fellow who's making a comeback in Georgia in a big way, thanks to lower fur prices and restocking. Almost extinct in most of Georgia by the end of World War II, beavers are now so plentiful in many areas that they are regarded as something of a pest by timber landowners because of their persistence in damming small creeks, which floods out small patches of timber, killing the trees.

But from the standpoint of ducks and other species who use swamps, the furry dam builder is their salvation from man's rapidly increasing drainage efforts. The beaver's activities are especially beneficial to Georgia's primary native species of duck. The wood duck has made a good recovery from near extinction caused by overshooting and draining of its swampland homes. In addition to using holes in the dead trees in the standing water for nesting sites, thousands of other wood ducks and more migratory species like mallards use the shallow beaver ponds as feeding and resting areas in the winter in preference to deep lakes and farm ponds, which produce little food.

America, of course, is a land of capitalism, and dollar values must be placed on all activities if they are to be allowed to survive. In self defense against this attitude, conservation agencies and hunters and fishermen have learned to find dollar values for their sports. This places their importance in an entirely new light for governmental and business decision-makers who don't hunt or fish themselves, and who previously disregarded wildlife's value to society and the economy. That hunting is indeed a big business for Georgia was clearly established by an economic survey of hunter's expenditures conducted by the State Game and Fish Commission during the 1966-67 hunting season under a project primarily financed by the U.S. Bureau of Sport Fisheries and Wildlife, and certified for standard procedures and statistical accuracy by the Data Center of the University of North Carolina at Raleigh.

The survey showed that Georgia's 293,565 licensed hunters during that season spent $22,676,308 for their gasoline, food, lodging, ammunition, guns, clothes, licenses, fees, and permits, not including items that are used primarily for some other purpose. When coupled with a survey the same year of the number of hunters who seek the various species and the number of animals they bagged, the survey produced some eye-opening values for wildlife species in the bag per animal: Doves, $.99 each; Squirrels, $1.01 each; Rabbits, $1.58 each; Quail, $1.81 each; Ducks, $4.35 each; Turkeys, $64.16 each; Deer, $367.75 each.

These digits don't evaluate two other important advantages of good hunting and fishing to a state: tourism and industrial attraction. For instance, many of the Western states sell more non-resident hunting licenses than resident licenses, bringing in thousands of hunters from out of state. Florida and Tennessee's use of fishing as a tourist attraction are good examples. Many industrial concerns that want to locate in Georgia know they will have an easier time hiring hard-to-get, well-paid personnel who can pick and choose their employer and the type of area they want to live in. An abundance of nearby hunting is an advantage many other states, especially most of those in the North, can't match.

Like others in the country today, Georgians seem to be awakening from their slumber in the Garden of Eden. The more hunting and fishing areas and great panoramas of magnificent scenery are crewed away by urbanization, industrialization, or mechanization, the more public awareness of the value of the remaining areas increases as we race toward eventual destruction of our environment, and ultimately, ourselves. All that is asked of man to save wildlife, wilderness, beauty, and the vital natural resources of the world are the same steps he must take if he is to protect his own continued existence on the only known hospitable planet of his universe. □

SQUIRREL

CURIOUSLY, the little gray squirrel and his slightly larger cousin, the fox squirrel, are the kings of Georgia's game animals. The squirrel can't put on any regal airs about his claim to the throne, however, because it is based on the number of hunters who occasionally find themselves hunting him when they don't have the chance or the time to bag something else, rather than because he is the most desired quarry.

Squirrels have been at the top of the hunter total list for several years. For instance, during the 1967-68 season, 141,963 squirrel hunters were estimated to have bagged 1,503,681 bushytails in 912,588 man-days of hunting.

Georgia is blessed with an abundance of squirrels in almost every part of the state in most years, making them readily available to hunters everwhere, of all ages.

While squirrels also feed on leaves, buds, bark, tubers and roots, their preference for acorns, hickory nuts, beechnuts and pine mast is justifiably famous, and these are the type of trees hunters can expect to find them in during the fall and winter seasons. Both because they use the fleshy fruits of hardwood trees (known as mast) for food, and make their homes in the hollows of large old den trees or build nests in them, gray squirrels are creatures of the hardwood forests.

In addition to the hardwoods of a large river swamp, a narrow band of old den trees or hardwood mast trees can usually be found on the banks of most Georgia streams, even those that run directly through cultivated land, pastures, or pine plantations. This band of old, crooked, or leaning trees doesn't make good saw timber. These old trees frequently have large hollow openings caused by disease or age that make an excellent home for squirrels, along with wood ducks, raccoons and many species of song birds. Wildlife specialists recommend leaving at least six good mast trees for each acre of timber cut, along with at least one den tree for every twenty acres.

Squirrels are most plentiful in the southern part of the state. In the heavy swamps and thickets of the coastal counties, squirrel populations of one or more per acre aren't uncommon. Gray squirrels are abundant year after year regardless of hunting in all of the large South Georgia river swamps of the coastal plain, and are plentiful in the Middle Georgia Piedmont and Northwest Georgia in areas with good stands of hardwoods.

Only in the mountains of Northeast Georgia are squirrel populations subject to drastic variations from year to year, depending on the mast crop. While there are extensive hardwood forests on most of the high ridges and peaks, mast production is controlled by the weather. A late spring freeze can virtually wipe out the acorn crop for an entire season, which sometimes causes a spectacular migration of squirrels off the high mountains into the more temperate valleys, and almost always results in a low production of young squirrels during the next rearing season. But with following years of good mast production, squirrel hunting is good in the mountains.

The most common methods of squirrel hunting are quite similar to deer hunting. The most popular is to find a feeding area and quietly sit in a fairly concealed spot, waiting for squirrels to come out of their hiding places to feed. Patches of hardwoods or a fence row between the woods and a cornfield make good hunting areas. It is best after shooting a squirrel to wait to pick him up until the other squirrels in the tree or the nearby area are bagged or scared off. If many squirrels are in the area, they may resume moving within minutes of a shot. This system also works well at a large den tree, especially early in the morning when the squirrels are leaving or late in the evening when they rush back in.

Another system that requires more skill but less patience is stalking. This is accomplished by sneaking along Indian-fashion, a few steps at a time, cautiously looking and listening for signs of activity. Many times during the early season when squirrels are feeding in trees, the sound of acorns or small twigs being cut out of a tree and dropping to the ground will give away Mr. Bushytail's whereabouts. Later in the season when acorns and nuts have already fallen, rustlings in the leaves of the forest floor serve the same purpose. Stalking is most successful when leaves are still damp and quiet from a recent rain or heavy dew.

An easier system of hunting, and one of the most productive, is using a dog to locate and tree the squirrels. One can cover a much greater area more quickly. The species of dog used for squirrel hunting doesn't seem to matter much. A mixed breed mongrel dog frequently makes an outstanding squirrel dog. The dog makes quick work of a squirrel without the need for a shot that might ruin the meat.

Almost any gauge and choke of shotgun loaded with number six to four shots is suitable for squirrels, although full choke barrels are popular with veteran squirrel hunters for long shots up to fifty yards. But the most sporting weapon for squirrel hunting is the common .22 caliber rifle. A .22 automatic rifle with a low power telescope mounted on it for squirrel hunting can make even a jaded adult feel like a child with a new toy. Of course, he isn't allowed to brag about any squirrels that require more than one shot to drop. Preferably they should be hit just under the ear, so as not to ruin the meat.

Clothing for squirrel hunting should be dark colored. Camouflage clothing is excellent. Boots are a good idea on damp days. The best time for squirrel hunting is early in the morning on cold, crisp days, or late in the warmer afternoon, although some squirrel movement continues throughout the entire day. If the wind is blowing, don't expect good squirrel hunting; possibly because the wind makes it difficult for them to hear a predator, squirrels lie close to their dens or nests as much as possible.

While the gray squirrel is most common in Georgia, larger fox squirrels are found scattered throughout the state. They are most frequently found in South Georgia. They appear in many different color phases, ranging from light brown to silver or jet black. Red fox squirrels have been introduced on one of the coastal islands. In recent years, a small red squirrel called the "boomer" has migrated into extreme North Georgia in the mountains, but this species is too rare and too small to provide any hunting. This is also the case with the even smaller but more interesting flying squirrel. Flying squirrels are much more common than most people realize. They are found in most of Georgia.

The squirrel hunting season in Georgia has varied considerably, primarily because of other species like deer and turkey. In recent years, the season has begun in October and lasted until the end of February in most of the state with an earlier season in the mountains. Some hunters feel that the season for squirrel should be the same as that for deer and turkeys to prevent outlaws from shooting another game species during the squirrel season. But game biologists say that squirrels are so plentiful that a longer season provides more recreation for a greater number of people without endangering the squirrel population. They point out that a person who would shoot a deer or turkey in an early squirrel season probably wouldn't hesitate to shoot a doe illegally, either, during, before, or after the season opened. Cutting the squirrel season short for law-abiding sportsmen because of a man who won't abide by a legal season or game law anyway isn't fair, they reason. The best answer to the problem is better game law enforcement, supported by more interested sportsmen and citizens who elect local officials.

Because of its ready availability and the preference that is usually given other species like deer or quail, obtaining permission to hunt squirrels on private land is much easier, especially if hunters show the landowner every courtesy possible, including shutting gates behind cattle, exercising care in climbing fences so that they will not be damaged, practicing gun safety and avoiding littering. Failing to find a good private spot to hunt, Georgia's public lands and game management areas will always provide thousands of hunters of all ages an annual chance to match their wits with Mr. Bushytail. □

DEER

WHEN THE CREEKS and the Cherokees hunted Georgia, whitetail deer were plentiful in the virgin forests of the entire state. But within the fairly short period of less than 300 years, deer became almost extinct. Then the pendulum swung back to today's large deer herd, within seventy years of the low point reached sometime before 1900.

Oddly, both the decline and the modern rise of the deer herd in Georgia and many other states was due to the hunter and his gun. Aided by large packs of skillful hounds used during any season of the year, or by lighted torches at night (firehunting), meat hunters actually annihilated the deer herds in North Georgia and Middle Georgia before the turn of the century. Only in some of the dense river swamps of the lower coastal plain in Southeast Georgia and on a few plantations in Southwest Georgia were deer able to survive this destruction by a handful of selfish, ignorant individuals.

But once deer had disappeared from most of their former range, saddened hunters and conservationists, who by now were valuing deer hunting more as a source of recreation than as a cheap source of meat, began to long for their restoration. The result was a resurgence of interest in deer that led to the first restocking of deer in the North Georgia mountains in 1928 by Ranger Arthur Woody of the U.S. Forest Service, on lands of the Chattahoochee National Forest near Dahlonegha. The deer stocking program was taken up by the State of Georgia's Wildlife Division in 1938, in conjunction with the establishment of a chain of refuge areas strung across North Georgia's end of the Appalachian Mountains. Under the watchful eye of the wildlife rangers stationed on each area, the restocked deer flourished with protection from dogs and poachers, the only serious natural enemies of deer left after the eradication of predators like mountain lions and wolves. Only twelve years after the first restocking, deer had increased enough to allow the first hunt on one of the game management areas.

Today, the deer restocking program has been spectacularly successful, both in the mountains of North Georgia and in the Middle Georgia Piedmont section, where restocked deer gradually spread along the smaller river and creek swamps that offered them a protective line of travel and a sanctuary from dogs and poachers. The deer herd has increased substantially in most of South Georgia as well.

During the 1967-68 season, surveys by the State Game and Fish Commission indicated that 140,319 of Georgia's 304,740 licensed hunters hunted deer, a number only slightly below front running squirrel hunting. The survey indicates that they took 20,902 deer, meaning that roughly one out of every seven hunters scored, a respectable success ratio in any Southeastern state. Professional game biologists feel that a success ratio of only one out of ten indicates good deer hunting on a game management area, not to mention the entire state. While biologists estimate that Georgia's deer population exceeds 100,000 animals, they believe the state could easily support 400,000 with proper protection and management. The biologists don't hesitate to brag about another figure. An economic survey of hunter expenditures in the 1966-67 season indicated that 130,152 deer hunters that year hunting 841,537 days spent $6,937,653 for their sport, a total of $367.75 per deer!

Expensive equipment isn't essential for deer hunting. Many hunters use the same shotgun they hunt quail and doves with for deer, substituting buckshot or a rifled slug for birdshot. An inexpensive military surplus rifle that makes an excellent deer rifle can be bought for as little as twenty-five dollars. In Middle and North Georgia, a hunter equipped with only these items stands an equal chance with the most wealthy sportsman of bagging the largest buck anyone has ever "drawn a bead on". This is especially so because of the large areas of public land in these sections that have good deer hunting, primarily in the sprawling Chattahoochee National Forest of North Georgia, and the smaller but popular Oconee National Forest in Middle Georgia.

With the exception of state game management areas, all of the 781,700 acres of National Forest land is open for hunting any species in season in the county where it is located. Because of its wooded nature and easy accessibility to hunters, more deer are killed per square mile on National Forest lands than on most private lands. Because of the large number of deer that are taken there, it isn't unusual for a few massive racks and unusually big deer to show up on the hoods of neophyte hunter's cars every year to the chagrin of veteran nimrods.

On the 300,000 acres of National Forest that is intensively managed for wildlife by the State Game and Fish Commission, hunters pay a small fee for the privilege of hunting. But because of better protection from poachers and dogs and more attention paid to the food and cover requirements of wildlife there, game management area hunting usually is of higher quality than is found on other Forest Service lands or even private lands. And because of the fee, often there are less hunters per square mile than on open areas, although there are some exceptions to that rule. But even on Georgia's two most popular game management areas, Blue Ridge north of Dahlonegha, and Cedar Creek near Monticello, 2,000 hunters spread over each area's extensive 40,000 acres would still only be one hunter for twenty acres, if hunters didn't concentrate near the roads and in favorite areas where the demand exceeds the supply.

Many hunters worry about safety under these conditions. In over twenty-five years of game management hunts and more than 100,000 deer hunting trips, there has been only one fatal hunting accident on a state game managment area in Georgia. While deer hunting appears to be a potentially dangerous form of recreation, the actual rate of accidents per number of participants is far less than more ordinary activities like fishing, boating, swimming or driving an automobile. Because of the greater potential danger, hunters apparently compensate by taking greater precautions than they would in more mundane forms of recreation.

Following the National Forests, the next largest acreage of public hunting lands lies in the U.S. Army's massive Fort Stewart Military Reservation in Southeast Georgia, near Savannah. Most of the 279,303 acres in the Fort are usually open for public hunting during most of the regular seasons on a special fee basis. Money from these permits is used for game management on the Fort lands, which offer an unusually large variety of hunting. In addition to deer there are squirrel, quail, rabbits, doves, wild hogs and ducks. The Fort has the highest deer and wild turkey population of any large tract in South Georgia because of the removal of the civilian population in 1940 when the government bought it, and the subsequent build-up of forest areas with relatively little interference from poachers and dogs. Information concerning current seasons, bag limits, and permit information can be obtained by writing the Provost Marshall, Fort Stewart, Georgia 31314.

Because of more intensive military activities, Georgia's other two large military reservations, Fort Benning and Fort Gordon, are only open to limited hunting by military personnel, employees and guests.

Probably the best deer hunting on a publicly owned area in Middle Georgia is the 23,000 acres of the U.S. Bureau of Sport Fisheries and Wildlife in Piedmont National Wildlife Refuge between Atlanta and Macon. Timber management on the Refuge is geared to produce maximum wildlife rather than maximum timber, and deer hunting success per square mile on Piedmont National usually exceeds most National Forest land and private timber company land.

Tree cutting on the Refuge is restricted to species undesirable for wildlife, or to create wildlife openings or to remove a genuine surplus of timber that will not harm the wildlife population. Yet the timber sales from the Refuge lands more than pay for the costs of its total operation, including timber and wildlife management

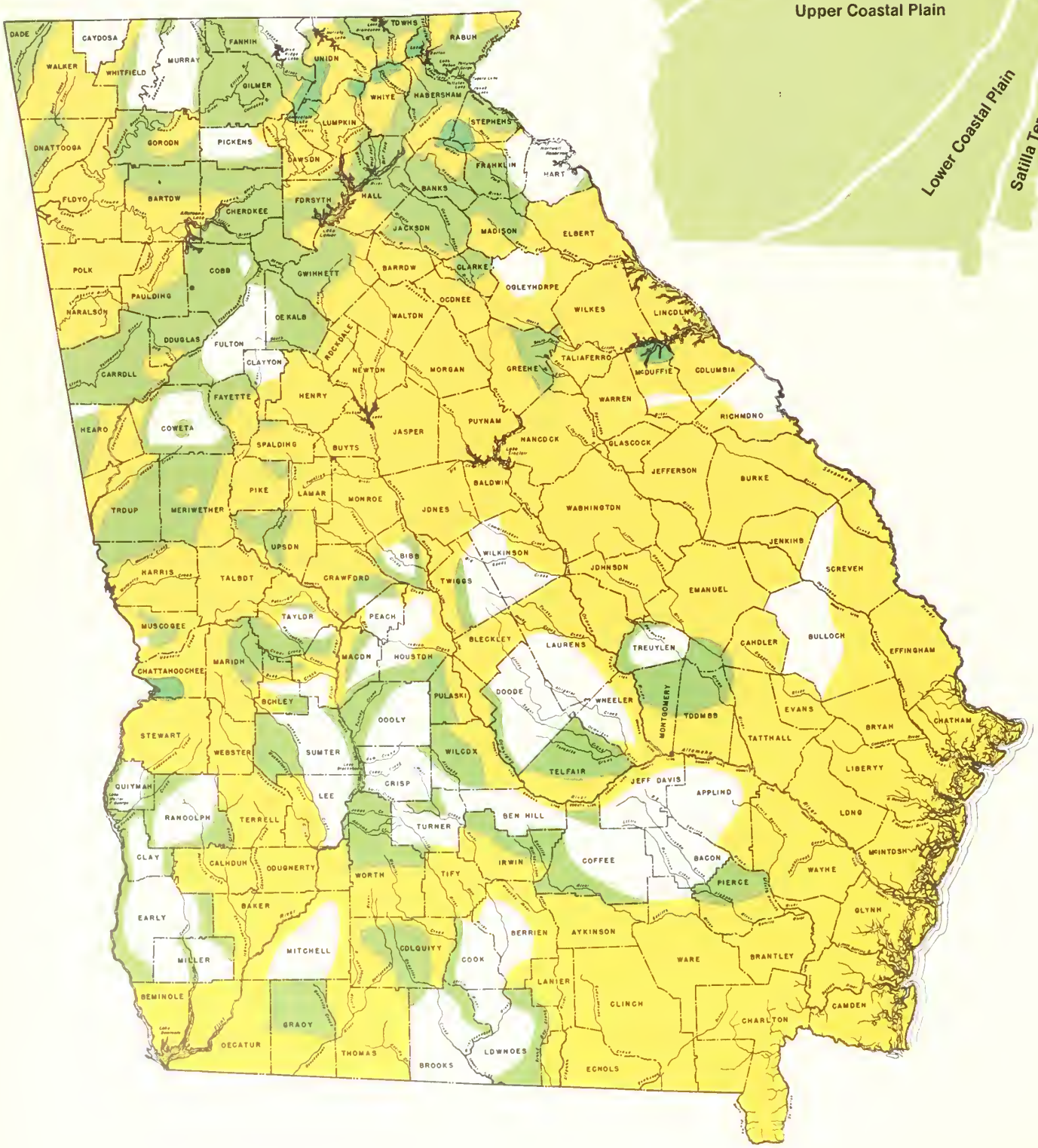
1968 DEER POPULATION

None

Not Huntable Population

Huntable Population

Overpopulated



and law enforcement. While hunters usually are not required to pay a fee, a permit often is required for dates of the organized hunts. Piedmont National has the only huntable population of turkeys on a Middle Georgia game area, with the exception of the Game and Fish Commission's Clark Hill game management area north of Augusta.

Blackbeard Island National Wildlife Refuge off the Georgia coast north of Brunswick is also open during organized deer hunts, but only with bows and arrows because of the small size of the island. Its primary purpose is to serve as a migratory duck feeding and resting refuge.

A third refuge, Savannah National, is usually open only for duck hunting during certain days of the season. Regulations and hunt dates on all three refuges can be obtained from the Regional Director, Bureau of Sport Fisheries and Wildlife, 809 Peachtree and Seventh Street, Atlanta, Georgia 30323.

Any description of deer hunting areas in Georgia would be incomplete without mentioning the extensive wooded areas owned by private timber and paper companies. There are more than 3,946,400 acres of such industrial forests in Georgia, and 374,958 acres of this area are under intensive management by the State Game and Fish Commission as a part of the State's twenty-seven game management areas. Over three million acres of land outside management areas are open to the public for hunting, and usually it is not necessary to obtain permission to hunt or pay a fee, although there are many exceptions. A handful of companies do not allow hunting on their property, but many companies have shown more interest in wildlife with the increase in demand by sportsmen.

Some companies have already begun charging fees to hunt on their lands, using the money to hire game biologists and deputized game wardens. Attention is even being focused on the possibility of modifying maximum timber management methods to improve game habitat. This provides more and better places for the public to hunt at a reasonable fee, and at the same time improves the company's public relations.

Some of the best deer hunting on industrial timberlands is around the edges of areas that have been completely cleared. While such areas are in their early growth stages for several years, deer utilize the available brouse before it is shaded out under the maturing trees. When this happens, hopefully another such area nearby will be in the brush stage. The primary flaw in this concept of even-age timber management and clear cutting is that often the clear cuts of more than sixty acres are too large for deer to utilize efficiently, since when these areas reach maturity the area of forest floor shaded is relatively unproductive for years. Some of the large cuts reach two hundred or more acres. Squirrels especially suffer from clear cutting because of the loss of old den and mast trees, unless some are left for wildlife. Six good mast trees left for each acre cut and a den tree left per twenty acres would solve the problem.

Aside from the large acreages of industrial timber companies, good deer hunting can be found on 15,053,000 acres of smaller holdings of private landowners, especially if the owner makes an effort to protect his deer from their usual enemies, dogs and man. Unfortunately, most of these areas that have a resident owner are frequently posted and off limits to any hunters except members of the owner's family, neighbors, friends and guests.

While some of these owners have begun selling daily permits to deer hunters on their lands and constructing deer hunting stands, etc., there are few private hunting lodges and guides for deer hunters in Georgia.

The most common method landowners use in many areas of Georgia, especially the heavily hunted, popular Middle Georgia areas is to lease exclusive hunting rights on their lands to a private hunting club. As a result, many thousands of acres of private woodlands that would never have been available to hunters otherwise have been leased. Normally, the lease fee is seldom more than the owner needs to pay his annual county property taxes, which vary from fifty cents to several dollars an acre from county to county. This leaves any profit the landowner makes from timber sales undiminished by annual property taxes, which have risen rapidly in recent years. In at least one popular Middle Georgia deer-hunting county, a real estate man has begun specializing in handling hunting leases.

Because of the increasing popularity of deer hunting and the growing problem of finding a place to hunt, it is especially important for deer hunters to secure permission on any private lands they go on before hunting. Georgia law prohibits trespassing or hunting and fishing on private lands without permission, regardless of whether the land is marked with "No Hunting" signs. This law is vigorously enforced by sheriffs and wildlife rangers in many heavily hunted areas.

Deer hunting methods vary considerably in Georgia, primarily between the northern half of the state and the southern portion. In the relatively open mountainous portion, hunting with dogs has been banned as a conservation measure since 1943 because of a lack of heavy escape cover. As a result, hunters are confined to "still hunting", which means either sitting quietly, waiting for a deer to pass, or stalking. As you might suspect, hunters who sit still in a good spot usually see fewer deer but have a better chance to get a shot. Few hunters possess the patience and skill needed to successfully walk up on a wary deer. But this doesn't mean that such a hunter won't occasionally "luck up" on a less alert animal.

Deer hunting in the more heavily wooded Piedmont or Central Georgia area is similar to mountain still hunting, except that here the use of tree stands is more popular because of lower rolling terrain and thicker woods. These "stands" are usually little more than a board nailed in the fork of a tree for the hunter to sit on above the deer's normal line of vision, but there are many varieties of portable stands on the market that can be easily carried and quickly set up in any tree.

In South Georgia and on the coastal islands, still hunting is becoming increasingly popular, especially as hunters gradually realize that high deer populations found in areas like Fort Stewart where dog hunting is not allowed are not an accident of nature. While most game biologists would like to reduce the area where deer hunting with dogs is now legal, the practice is likely to continue for many years, until local sportsmen themselves are willing to accept the change in hunting methods, a slow process at best. But even the most conservative game biologists are willing to accept continued legal dogging in the dense standing water river swamps of the lower coastal plain and the Satilla Terrace, which includes most of Southeast Georgia. (See the map of Georgia's major physiographic regions.) Only in these areas is the escape cover heavy enough for deer to survive, primarily because dogs cannot follow a deer's scent through water.

Deer hunting with dogs is considerably different from the one man versus deer contest of still hunting. Some of the hunters receive as much satisfaction from listening to their dogs in a good chase as they do from bagging a deer. A South Georgia deer hunt is more a social affair than its northern counterpart. A large number of hunters working together are required to make it successful, even though a hunt by fifty men may cover an area that would easily accommodate two thousand still hunters.

The classic deer hunt with dogs is a drive. The dogs are released in the hopes that they will pick up a deer's scent and run it past a line of waiting hunters, called "standers". Where possible, such a hunt is run parallel to a natural barrier such as a river or lake, which help to restrict the deer's escape route, although hard pressed deer will swim to escape dogs at times. The hunters are often spread out in a widely spaced line across a woods road, firebreak, or other open area, especially on established deer trails. When the deer is driven from the dense palmetto or gallberies, he (or she) may be walking slowly or bounding quickly to the thickets on the other side. For this type of quick snap shooting at short range, buck-

shot is almost essential.

While shotguns with buckshot are also legally used in North and Middle Georgia, they are becoming less common as hunters switch to longer range rifled slugs in shotguns or large caliber rifles, which are more accurate. Contrary to popular belief, rifles have failed to produce as many hunting accidents as shotguns, both nationally and in Georgia.

While rifles are legal weapons in all parts of Georgia, their use in the legal dogging sections of South Georgia frequently is frowned on by local hunters. This feeling is probably justifiable when a line of standing hunters are strung out along an open road, especially if tree stands aren't used. But for still hunting, statistics and reason both indicate that the rifle is no more or less dangerous than a shotgun loaded with buckshot in the flat, thickly wooded areas of South Georgia.

In recent years, Georgia has seen the rise in popularity of a third weapon for deer hunting that most hunters gave up when the white man and his gun first arrived. This budding sport has flourished ever since the state allowed archers to enter the woods a month before the gun hunters several years ago in a special archery season. Similar early archery hunts are allowed on many state and federal game areas. There are several reasons why this special favor is possible, primarily because archers kill few deer. This provides for a longer period of hunting for more deer hunters with less damage to the deer herd.

Even more recently, the gap between modern gun hunters and archers has been filled by a rising interest in well preserved or modern reproductions of muzzle-loading rifles and shotguns. If you're interested in taking up deer hunting, before buying your equipment get a copy of the current hunting regulations from the Game and Fish Commission to make sure that the weapon you're considering is legal.

Generally speaking, the best area of Georgia to get a shot at a deer is in the Middle Georgia section where they have been re-established during the past twenty-five years and where at least one day of either-sex deer hunting has been allowed in recent years. Jones County at Gray, just north of Macon, has long been one of Georgia's most popular deer hunting counties, both because of its high deer population and its large acreage of open National Forest Service land. Jasper county is perhaps as popular. Other unusually good deer producing counties in the same area include Butts, Newton, Monroe, Putnam, and McDuffie. This list is expanding rapidly each year. Because of its more fertile soil and thus a greater abundance of feed, Middle Georgia regularly produces the largest racks and the heaviest animals.

In the mountains, some of the traditionally fine deer hunting counties include Rabun, Towns, White, Lumpkin, and Fannin. In Northwest Georgia, Floyd, Polk, and Haralson Counties have high populations. A good area on the Alabama line surrounding Fort Benning is in Muscogee, Chattahoochee, and Stewart counties. In Southeast Georgia, Bulloch, Screven, and Jenkins counties are better than average, along with the counties surrounding and including Fort Stewart. South Georgia deer tend to be generally smaller than deer of the mountains and Middle Georgia, especially the small coastal island deer.

Although there is adequate habitat for deer in most areas of South Georgia, deer populations are much lower than should be the case over a wide area, primarily because of heavy local poaching or free running dog problems, which are not limited to South Georgia. Only time, better dog control programs and better cooperation from local law enforcement officials and sportsmen alike will solve these problems.

To be a successful deer hunter, it usually helps to have a little knowledge of their habits, rather than relying on blind luck. Deer are considered brousing, rather than grazing animals, and they prefer the leaves of brushy plants, twigs, shrubs, weeds, and fruits, especially acorns. A stand or blind in sight of a heavy dropping of acorns under an oak tree in well populated deer country is always a good bet. Honeysuckle areas are also popular, especially in a section where they are not common. The edges of wintergreen grazing patches such as rye grass or fescue may produce a shot or two, but usually only late in the afternoon. Does use such areas more readily than wary bucks, who frequently wait until dark to move into an open area.

Deer customarily feed early in the morning from daybreak until the middle of the morning, then lie down to chew their cud and rest until late afternoon. Then they resume feeding until after dark, sometimes staying up for most of the night. In describing habits of wildlife, every rule is made to be broken, and deer are no exception. They sometimes feed and move about freely during the middle of the day. Feeding activity is generally greatest before a cold front moves in or after a rain, regardless of the time of day.

What all this means to the hunter is that his best chance to spot a deer moving along a trail or in a feeding area is early in the morning or late in the afternoon. During these times, it's a good idea for still hunters to get on their stands early and stay there. During the middle of the day, stalking is the most productive way to hunt, if you don't mind the extra effort. Many hunters spend the middle hours of the day eating lunch and resting up for the afternoon's hunt.

Locating a good deer trail or feeding or resting area to watch is an important factor. This can be done by scouting an area out before or during a hunt to determine where the trail or area is and whether or not it is being actively used by deer. It helps to actually spot the animals themselves, but good indications come from fresh tracks, droppings, broken twigs and "rubbing trees", sure signs that a buck is in the area and polishing his antlers on a small sapling. Don't overlook the edges of rivers, creeks, and swamps, because these are favorite deer travel lanes.

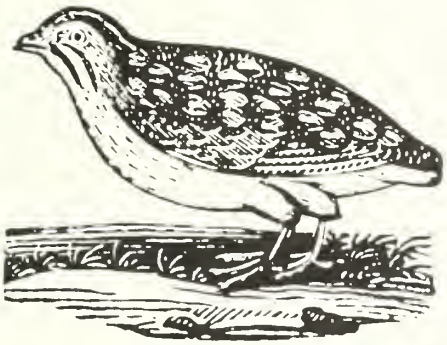
While stalking, picking a stand, or scouting, don't forget that deer have a keen sense of smell, and that human odor remains on dry ground for several hours and even longer on wet ground. It's a good idea to avoid stepping in or near a deer trail that you plan to hunt immediately. Locate your stand so that the wind won't blow your scent in the direction the deer may come, and always stalk upwind.

Georgia's deer hunting seasons vary from year to year in the various counties and game management areas, as well as the bag limits on bucks and/or does, so don't forget to request a current copy of the hunting and game management area regulations each year from the State Game and Fish Commission in Atlanta. Generally speaking, the state-wide archery season is in October, with the gun season in most of North and Middle Georgia in November. The South Georgia season has begun in either October or November and lasted until January in most years. Bow hunts on the state and federal game management areas are usually in October and November, with the management area buck hunts traditionally during Thanksgiving week, along with bonus hunts on a few areas between Christmas and New Year's. □

QUAIL

GEORGIA is the Quail Capitol of the World. Other states may grow more peaches or more cotton, but none grow more bobwhites per acre than Georgia. The section of the state that long ago captured the undisputed championship of the quail hunting world for Georgia is centered on the large plantations near Albany and Thomasville in Southwest Georgia, although fine quail hunting is found all the way across South Georgia to Waynesboro on the South Carolina border, which has long been known as the Bird Dog Capitol of the World, and is the site of the famous field trials.

Generally speaking, this quail-rich country is the upper and lower coastal plain of South Georgia, once under the ancient



sea, now a relatively flat area where extensive farming operations and pine groves extend as far as the eye can see. This land is tailor-made for quail, with just the right mixture of woods, brushland, tall grass and cropland, the four essential requirements of good quail habitat to furnish the birds food and protective cover from predators and weather.

This is the land that attracted the late president Eisenhower and many other famous or wealthy hunters to Georgia each year, and which will continue to exercise its magic attraction for years to come, as long as men are fascinated by the surprise of a covey bursting into flight. The names of these quail hunting plantations are legendary: Blue Springs, Nilo, Ichaway, Kinderlou, Di-Lane and many others. Their owners and guests are among the luckiest and most elite groups of hunters in the world, where talk of bird dogs and shotguns is sandwiched in between the business discussions of multimillion dollar financial and industrial empires.

The fabulous quail hunting found on these plantations is a result of the happy combination of three essential ingredients: good habitat, time and money. Unfortunately for the average landowner or quail hunter, without all three, equal results can't be obtained elsewhere.

Most of the plantations are owned by large corporations or individuals who make their money in other areas, using the plantation almost solely as a recreational area for entertaining business guests, although some farming is conducted with livestock and timber operations. But ideal conditions for quail are created at the expense of maximum income for the other activities, the reverse of the usual priority on most farms and lands.

Basically, the quail is a farm game species that thrives in and around cultivated lands, although some quail are found in woods, swamps, brushy areas and grasslands. For this reason, the bobwhite thrived during the period when most of Georgia was cleared of timber for heavy agricultural operations like growing cotton and other row crops. Quail flourished by eating the highly nutritious seeds of weeds that invariably grew as an unwanted by-product of rowcropping. At the same time, the prevailing practice of burning the piney woods floor to produce better grazing for cattle and hogs greatly stimulated the growth of partridge peas and beggarweed, two staples of the bobwhite's diet.

While this happy set of circumstances prevailed, excellent quail hunting was readily available to even the most casual hunter. In open country, the birds held well on the ground, waiting to the last minute to fly for cover. But today the picture has changed drastically in many areas. Once cultivated fields have been sown to pasture grass, which doesn't produce as many or as desirable seeds as the weeds around a cotton plant did. Many of the woods areas are now grown up above eye level in gallberries, palmettos, and other undesirable species for quail that make visibility difficult at best. Also, many acres of open land have either been planted in pine tree seedlings or have been allowed to slowly return to a wild, brushy condition, until growing trees shade out the small seed producing plants on the ground.

The result has been a rapid decrease in the amount of good quail hunting land in Georgia, which is reflected in a steadily declining number of quail hunters and the total bag of quail that they take each year. For instance, in the 1962-63 season, a survey by the State Game and Fish Commission indicated that 135,000 Georgians hunted quail a total of 1,234,000 days, bagging 4,058,000 birds, which made quail hunting Georgia's most popular type of hunting that season. But by the 1967-68 season, only 121,698 hunters still sought quail for 980,288 days, bagging only 2,498,587 birds, placing quail hunting in third place behind squirrel and deer hunting.

Although the fate of quail hunting is tied up inevitably with agricultural trends, as long as rowcropping continues to exist in Georgia, quail hunting in the surrounding area will continue to be "the best in the world". Even in the thousands of acres of new forests, good quail populations can be created by controlled burning of the forest floor under mature trees to stimulate the production of natural quail foods. And on pasture areas, small patches of cover and food crops planted along fence rows can help replace some quail habitat lost to grass or trees.

Although the coastal plain of South Georgia will continue to be Georgia's finest quail hunting territory, good quail hunting is found in the few remaining areas of the Piedmont that still have a row crop agriculture, or on areas of recently cleared out timberlands before the young bushes and trees reach maturity. While there is some quail hunting found in Northwest Georgia, declining agriculture there is adversely affecting quail. Because of the heavily wooded nature of the North Georgia mountains and the coastal Satilla Terrace few quail are found in either region.

Of all of the five major types of hunting in the state, quail hunting is the hardest to obtain permission for, especially if the landowner is a quail hunter himself. This situation is complicated by the fact that almost all of Georgia's publicly owned areas or private lands which are open for public hunting are woodlands, which support few bobwhites. Another problem is the fact that a fairly large acreage of open land is needed for even a small number of quail hunters. As a result, few small farms are large enough to support much quail hunting.

For the out of state hunter with a short period of time to spend who doesn't mind paying for what he gets, Georgia's twenty commercial quail hunting preserves are probably the best answer. While preserves primarily offer hunting for pen-raised quail during their special six-month season, many of them have some wild bird hunting as well during the regular quail season, which normally opens about November 20 and runs through the end of February.

In addition to guaranteed shooting, most quail preserves include a guide and a pair of well-trained bird dogs in their price, which may range from $35 for a half a day's shooting to $100 a day or more, sometimes depending on the number of birds shot or released, since there is no limit on a quail preserve for pen-raised birds. Some of the preserves also have facilities for meals and lodging at extra cost. Many also feature shooting for pen-raised pheasants. A few have duck shooting ponds, and some even hold dove shoots for wild birds during the legal seasons.

Although an occasional quail can be bagged by a hunter flushing the birds up himself, especially if he knows the covey locations well, the best results and the standard way of hunting quail for one to three hunters is using one or more bird dogs to locate the quarry and retrieve any downed or crippled birds before they are

lost in the leaves. In Georgia, the short haired pointers are the most popular bird dogs, although longer haired setters are a close second. Specialized retrievers, species like Laboradors, are seldom used by the average quail hunter. Unlike deer or turkey hunting, quail hunting isn't affected much by the time of the day, except that on hot days bird dogs work better in the early mornings and late afternoons.

The real art of quail hunting lies in the skill of the hunter in shooting his quarry on the wing. Quail are noted for their ability to scare the daylights out of a hunter as they burst from the ground with a sound that isn't too different from the buzz of a startled rattlesnake, followed by a swift escape through the trees and bushes. It isn't uncommon for the amateur to blast away at the entire covey, missing them all. The experienced hunter calmly picks out one bird to shoot at, swinging with the bird and giving him plenty of lead. If single birds can be located after the covey is scattered, concentrating on one bird getting up at a time is a much easier way to learn good wing shooting.

Any size, model, brand or type of shotgun you can name can be used for quail hunting, but most hunters prefer a gun with a fairly open choke, giving the number eight birdshot a wider pattern and increasing the chances for a hit.

Finding the best places to hunt quail is a technique learned only through experience. Usually, quail will be found most often near field borders, fence rows and the edge of a woods or brushy area. Few quail are ordinarily seen in deep forest areas, although open pine woods can support a fair number of bobwhites.

RABBIT

ALTHOUGH THE RABBIT is usually rated as America's most hunted game animal, he ranks at the bottom of Georgia's five most popular species, which is still respectable popularity. In the 1967-68 season, 112,611 licensed Georgia hunters are estimated to have hunted rabbits 669,670 days, bagging 1,047,458.

During many seasons, the rabbit has been more popular, primarily in years when rabbit populations were higher and before deer and squirrel populations increased to their present level.

But strangely enough, in the section of Georgia where rabbits are the most plentiful, they are the least popular with hunters. While rabbits are common in all parts of Georgia, they are the most numerous in South Georgia, especially in the upper coastal plain. Rabbits are somewhat less plentiful in the lower coastal plain and in the Piedmont section. In the mountains and Northwest Georgia's Limestone Valley and Lookout Plateau areas where rabbit hunting is most popular, rabbits are paradoxically in the shortest supply.

There are four distinct species of rabbits in Georgia. The most common of these is the Eastern cottontail, which is found in every Georgia county. Around Northwest Georgia and Middle Georgia's swamps and streams, a larger species occurs, the swamp rabbit. It is known locally as the cane-cutter or "buck" rabbit because of its size. In the denser swamps of South Georgia and the Satilla Terrace down to the saltwater marshes, the cane-cutter is replaced by the darker colored and much smaller marsh rabbit. The fourth species, the New England cottontail, is found only in the mountains of Northeast Georgia. About the same size as the marsh rabbit, it is similar in appearance to the Eastern cottontail, except for a black patch between his ears and his pinkish-buff coat.

Like quail, cottontails flourish best on farms with extensive areas of cultivated land interspersed with brushy fence rows, occasional thickets, brush piles and fairly open woods. Apparently the same decline in rowcropping which has caused a decline in Georgia's quail hunting is taking its toll of rabbits, especially in North and Middle Georgia. But at the same time that quail hunting is becoming more difficult in overgrown areas of South Georgia, rabbit hunting there is becoming more popular than it once was.

While rabbits can occasionally be walked up by one or more hunters on foot, the most popular form of hunting is with specially trained beagle dogs, a breed created for the purpose. Beagles make good rabbit dogs because of their clear and easy-to-follow bark, endurance and small size. Beagles run fast enough to give a rabbit a good chase, but slow enough to be unable to catch him before the hunter can get a shot.

Rabbits sometimes dive into holes or burrows in the ground to escape, but frequently they will circle back to approximately the same area where they were first jumped, offering the waiting hunter a chance on the return trip as he crosses an opening.

Because most rabbit hunting involves shooting at running targets, shotguns with number four to six shot are preferred over .22 rifles by most hunters. The little gun is excellent for persons keen-eyed enough to spot rabbits sitting in their beds before running or for a crack shot at moving targets.

Clothes for rabbit hunting should be about the same as those worn by a quail hunter, including briar-proof pants for hea y cover, waterproof boots and a fairly light vest or coat for long walking trips.

While rabbits can be hunted at any time of the day, especially with dogs, they move around much more in the morning and late afternoon, leaving more scent trails for the dogs to find and follow.

Georgia rabbits in a few areas are subject to tularemia or "rabbit fever", transmitted by spotted ticks which usually drop off rabbits for the winter after the first hard freeze. Since any infected rabbit will usually die within ten days, waiting until that long after the freeze is the simplest way to avoid tularemia, although thorough cooking destroys the germs. The season in Georgia usually opens about that time, on or around November 20, approximately the same as the quail season.

Although there are few rabbits found on most of Georgia's forested public hunting areas, obtaining permission to hunt rabbits on private land is fairly easy in most areas of the State, especially South Georgia.

DOVE

GEORGIA is second to no other Southeastern state for dove shooting. In fact, hunting for this grey speedster of the September skies is neck and neck with quail hunting for the title of Georgia's most popular game bird. During the 1967-68 season a survey indicated that 106,256 hunters spent 703,342 hours bagging 3,377,544 doves; 878,957 birds more than were taken by quail hunters.

What makes the dove such a popular game bird? Speed, agility, plentiful numbers and edibility. His habit of congregating in large numbers over a recently harvested grain field in the fall creates an ideal situation for a community get-together that is eagerly awaited by shooters each year, marking the beginning of another hunting season.

In the opinion of many sportsmen, the dove is the hardest to hit flying target that a hunter can find. At the sight of a hunter or the sound of a gun, a dove loafing lazily along can come to life like the second stage booster of a Saturn rocket, swooping up, down and sideways in both directions like a bumblee with indigestion. Surveys by ammunition companies indicate why Mr. Mourning Dove is so popular with the powder boys: the national average is six shots for every dove in the bag, or almost a box of twenty-five shotgun shells for every four doves killed. Of course, to get an average, a lot of hunters have to do better . . . and worse. But if he was easy to hit, he probably wouldn't be nearly as popular with hunters.

Unlike quail, doves require water in a pool or a stream to drink. During fairly dry periods when many sources of water are dried up, waterholes can provide some good dove shooting, especially in the late afternoon. Shooting doves coming to roost at sunset can also provide fast, sporty shooting, but hunters must be careful not to shoot past legal shooting hours.

Most dove hunting is found on harvested fields of corn, millet, milo, wheat, peanuts, peas, and grain sorghums. This is because doves need bare ground or short

stubble to find food, and the fall harvest occurs just as young and old birds leave the nest. This type of hunting ordinarily should be done by enough hunters well distributed around the edges of the field to keep the birds from landing and feeding.

If you expect to shoot many doves, don't try to play scarecrow by standing up in the middle of the field, especially wearing white or light colored clothes. Most hunters conceal themselves along a weedy fence row, under a bush or tree, or build a blind of small trees or corn stalks. Camouflage suits and hats are well worth the money for a serious dove shooter. The next most important thing is to lie as low as possible in your blind, motionless until the bird is in shotgun range. When you shoot, don't forget to swing your shotgun with the bird, lead him a few feet and pull. But don't be disappointed if it takes many shots to begin connecting. Even the best wingshots miss on doves, so stock up on shells: they don't sell them on dove fields. Don't shoot at birds flying low on the ground; you may pepper another hunter nearby.

Almost any gauge, action, and choke will do for dove hunting, although 12 gauge pumps or automatics are most common, using an improved or modified choke barrel and shot ranging in size from seven and a half to nine.

When looking for a place to go, as in quail hunting, it helps to know somebody, but invitations to a dove shoot are easier to get than those for quail hunting, since more hunters can be accommodated at the same time. With the encouragement of conservation agencies, farmers are more frequently opening their dove fields to the public on a fee basis, but finding out when and where these shoots will be held is a problem unless you live in the area. One source of information is the local county wildlife ranger, or the county agent, since both come in contact with many farmers. Some of the licensed commercial quail preserves also have dove shoots.

Why does Georgia have such a large population of doves? Many of the birds are born and raised here, especially those shot in September. But by the middle of November, almost an equal number of doves migrate into Georgia from the north, rapidly expanding the population. Since most of these migratory birds go to South Georgia, half as many hunters there take more than twice as many doves in both the early and late season than their North Georgia counterparts. There is little dove shooting on the Georgia coast or in the mountains of the Northeast, where grain fields and farms are scarce. Generally speaking the best dove shooting is found south of Augusta, Macon, and Columbus, the fall line at the top of the upper coastal plain.

Normally, the dove season opens in September for the entire state, closes in October, and opens again in December and January. This split season and the bag limit, as well as the regulations against "baiting" a field and the shooting hours for doves are set by the federal government, because the dove is a migratory species covered by the Migratory Bird Treaty Acts with Mexico and Canada. Georgia and the other states are given a choice of the opening dates of their seasons within a specified period for a specified number of half days of shooting.

The mourning dove is not a ground scratching bird like the quail, and it must find its food lying on top of the ground. This is the reason that it prefers small grains or other plant seeds that it can pick up, preferably off of bare ground in a cultivated field. Areas that have been recently burned over also fit this description, because most weed seeds that doves prefer are highly fire resistant.

Generally speaking, the best dove shooting in Georgia is found in the same areas that produce the best quail hunting. However, doves have benefited more than quail from recent increases in the beef and dairy cattle industry, primarily because cattle and livestock feed crops such as corn, millet, lespedeza, oats and hay.

Curiously, this abundance of food for doves in recent years may well have had the effect of producing poorer hunting by spreading the birds out on a greater number of fields than were once available. In previous years when harvested small grains were found in only a few fields in each county, doves from a wider area were more concentrated. This situation may well become more severe in the future. Whether it is a blessing or a curse to dove shooters is still a matter of opinion, but at least doves are fairly well assured of not sharing the fate of their look-alike, the now extinct passenger pigeon.

WATERFOWL

THOUSANDS OF DUCKS and other species of waterfowl migrate to Georgia from the north each year, but duck hunting has never been widely popular in the State due to difficult hunting conditions, their relatively restricted habitat on wooded streams, swamps and marshes, the low bag limit, and declining numbers during recent years.

Most of Georgia's duck hunting occurs on the coast, but a fair amount of jump shooting from a floating boat can be found on many of the inland streams as well as on beaver pond swamps, especially for wood ducks. Occasionally, decoys are used.

Geese shooting is virtually non-existent in Georgia. The major wintering grounds are to the south and the north, and Northern geese hunters have begun growing corn for the birds to keep them from migrating south in search of food. Because of this, hunting for the awkward coot is more common than goose hunting.

Marsh hens (gallinules) are the most popular migratory bird second to ducks on the Georgia coast. They are hunted from a small boat at unusually high tides over the marsh grass, or along the mud banks of saltwater creeks at low tide.

Georgia has two state public waterfowl areas, the Altamaha Area at Darien on the coast and the Lake Seminole Area in Southwest Georgia near Bainbridge. The Savannah National Wildlife Refuge is also open for duck hunting.

TURKEY

ONCE PLENTIFUL in the entire eastern United States, the wild turkey is now virtually extinct on most of his former range. A survey in 1968 by the State Game and Fish Commission indicated that a huntable population exists in only thirty-five of Georgia's 159 counties, primarily in Southeast and Southwest Georgia on private plantations and on game management areas in Middle and North Georgia. Except for spotty restockings, the remaining turkeys are strung out up and down the heavy cover of the major river and creek swamps. Counting the eighty-seven counties that have some turkeys, but not in huntable numbers, there are thirty-five counties without any turkeys at all.

Georgia's turkey habitat suffers from too many pine tree forests, but game biologists say there are thousands of acres of suitable habitat, especially inland swamps and extensive beaver pond areas where turkeys could be successfully restocked with adequate protection. The State Game and Fish Commission plans to accomplish this goal by raising wild turkeys for trapping and restocking on the State's newly acquired Sapelo Island Game Management Area for a twenty-year game management program similar to the one that so successfully restored deer to most of Georgia in the past twenty years.

The only areas currently open to the general public for turkey hunting are on the Chattahoochee National Forest in North Georgia and on several game management areas of the State Game and Fish Commission, primarily hunting for gobblers during the spring mating season. The area around Clark Hill near Augusta is one of the best areas for turkeys in Georgia. Spring turkey hunting requires considerable skill in using a turkey call that imitates a hen. Both rifles and shotguns are used.

BEAR

HUNTING for black bear in Georgia is virtually a thing of the past. For many years, the only bear season has been in the counties surrounding the Okefenokee National Wildlife Refuge, which has the highest bear and alligator population of any area in Georgia. Even here, the season would probably have been closed many years ago were it not for complaints from bee keepers of bears wrecking their hives. Still hunting for bears in this thick area is unheard of; the only common method is the use of dogs.

There are a few bears scattered out in the rest of Georgia, especially the North Georgia mountains, but they are not numerous enough to be huntable.

SMALL GAME

RUFFED GROUSE are found only in the high altitude mountains of Northeast Georgia, where they are hunted with bird dogs or by still hunters seeking squirrels. Ample hunting areas are available on Chattahoochee National Forest lands and on small game hunts on State Game and Fish Commission management areas.

'Coon hunting is similar to Georgia rabbit hunting in that it is the most popular where raccons are the rarest — the nearly dry hills and mountains of North Georgia, where packs of specially trained dogs are used to hunt them at night.

In South Georgia and the coastal sections raccoons are abundant, but there is little or no interest in hunting them. They are considered pesky predators of the eggs of turkey, wood duck, quail and turtles. In recent years, rabies in South Georgia raccoons has been a problem.

✣

Crows are found in every Georgia county, although they are most abundant in South Georgia in the fall. Since there is no season or bag limit on crows, dove shooters frequently hunt them to practice their markmanship before the opening of the hunting season, using crow calls and owl decoys. A hunting license and plugs in shotguns are required.

✣

Not actually considered a game species in Georgia, wild hogs that are descendants of domestic stock gone wild are becoming more popular, primarily in the river swamps of Middle and South Georgia. Dogs are usually used. In many areas hogs are still considered private property by landowners. Hunters should be careful to secure permission before hunting them.

Game biologists oppose the introduction or continued existence of hogs on game management areas because they never become as numerous as deer and usually cause a great deal of damage by rooting up vegetation, competing for food with other animals and wallowing in trout streams.

Fox hunting is also a nocturnal sport using a pack of large hounds that once was much more common in Georgia than it is today. Due to the large amount of forest area, hunters often lose sight and sound of their dogs. In a few locations, they are still hunted on horseback during the day.

✣

A few hunters use packs of dogs to hunt bobcats at night, along with some predator calling. Bobcats are found in almost every county in Georgia with large forests, but are most common in the river swamps of South Georgia.

✣

'Possum hunting is similar to coon hunting. It is done at night with a dog, primarily by youngsters and occasionally by the raccoon hunters.

✣

Wilson's snipe and American woodcock are two migratory game birds that are more popular in areas of the country not as blessed with quail hunting as Georgia is. Both birds are commonly found in low wet areas around creeks, branches, beaver ponds, lakes and swamps. Woodcock especially prefer alder thickets along a creek swamp.

Snipe are almost impossible to hunt with a bird dog because they seldom hold still for the dog, flushing when the dog comes near. They usually rise close to a walking hunter, within 15 to 25 yards. Woodcock will hold for a bird dog trained for quail hunting.

The birds are slightly larger than bobwhite quail, but they do not covey up in the winter.

✣

Georgia's hunting seasons, bag limits and hunting regulations change from year to year to meet changing game populations and other conditions. A current copy of each year's regulations may be obtained by writing the State Game and Fish Commission, 270 Washington St. S.W., Atlanta, Ga., 30334.

Dear Sportsman:

This book has been written by the staff of the State Game and Fish Commission in cooperation with Atlanta Magazine to help you find Georgia's best hunting spots.

The information on where to go, when, and how to hunt in Georgia is a result of many years of experience of Georgia's dedicated game personnel and wildlife rangers. Increasing the enjoyment that hunters find on Georgia's magnificent fields, forests, and waters is a primary goal of the State Game and Fish Commission.

This publication is a small token of our appreciation to you and your feilow sportsmen for your support of these efforts in the past, as well as the future.

Good luck, and good hunting!

Sincerely,

George T. Bagby,
Director,
State Game and Fish Commission

HUNTING FACILITIES

Adamson's Hunting & Fishing Camp, *Roy Driggers*, 654-9058. Ga. 261 near Glenville. Private Preserve—Deer, Turkey, Small Game, Ducks.

Brunswick Quail Farm, *J. W. Harrington*, 265-1348. 433 Old Jesup Hwy., Brunswick. Private Preserve—Deer, Wild Hog, Quail, Small Game, Ducks.

The Callaway Gardens Hunting Preserve, *Dutch Martin*, 663-2281. Ga. 18 near Pine Mountain. Private Preserve—Quail.

Cedar Springs Farm, *J. B. Frierson III*, 539-2427. Rt. 1, Kensington, Ga. Private & Other Private Land—Deer, Fish, Quail, Doves, Small Game.

Edgewood Hunting Preserve, *W. A. Elsberry*, 629-8154. Hill City, Ga. Commercial—Quail, Doves, Pheasants, Chukkan.

Fletcher's Lake Hunting Preserve, *Bobby Fletcher*, 468-5800. U.S. 319 near Ocilla. Private Preserve—Deer, Quail, Doves, Small Game, Ducks.

Greyfield Lodge, *Rich Fergueson*, 261-4377. Cumberland Island. Other Private Land—Deer, Small Game, Ducks.

Hall Bros. Hunting Club, *Mr. Hall*, 354-7284. Skidaway Island. Other Private Land—Deer, Wild Hog, Ducks, Small Game.

Indianola Hunting Club, *Thomas W. Hodge*, 242-0903. U.S. 84 near Valdosta. Private—Quail, Small Game.

Jack Wingate's Fishing Lodge, *Jack Wingate*, 246-0658. Ga. 310 near Bainbridge. Private Preserve—Ducks.

J. S. Wilson Hunts, Inc., *J. S. Wilson*, 468-6415 or 468-6688. At Lake Jackson near Monticello. Private Preserve, Other Private Land & Public Land—Deer, Quail, Doves, Small Game.

Kinderlou Forest Hunting Preserve, *Russel Howell*, 244-4644. U.S. 84 near Valdosta. Private Preserve—Quail.

Kip's Fish Camp, *Phillip Smith*, 832-5162. Off U.S. 17 near Brunswick. Other Private Land—Marsh Hen.

Marben Farm Hunting Preserve, *Billy Hester*, 786-3331. Ga. 11 near Mansfield. Privately owned land—Deer, Quail, Doves, Small Game, Ducks, Pheasants.

Marsh Hunting Preserve, 587-5727. Off U.S. 301 near Statesboro. Fish, Quail.

Merck's Quail Preserve, *Walter Merck*, 729-5520. Clarks Bluff Rd. near Kingsland. Private Preserve—Quail.

Mobley's Bowhunting Preserve, *Robert Mobley*, 594-3361. U.S. 221 near Uvalda. Private Preserve & Other Private Land—Wild Hog, Small Game.

Notchaway Hunting Preserve, *T. W. Rentz*. Off U.S. 27 near Colquitt. Private Preserve—Quail.

Oconee Hunting Preserve, *Curtis Purdee*, 272-5088. Old River Road near Dublin. Private Preserve—Turkey, Wild Hog, Small Game.

Parker's Hunting Camp, *Jimmy Parker*, 545-3196. U.S. 301 near Ludowici. Private Preserve—Deer, Turkey, Wild Hog, Small Game.

Puloski Hunting Preserve, *Wilbur Slade*. 893-7041 or 892-2208. Off U.S. 129 near Hawkinsville. Private Land & Public—Quail, Doves, Small Game, Ducks, Pheasants.

Redbone Farms Hunting Preserve, *Newton Moye*, 358-1658. Off U.S. 341 near Barnesville. Private Preserve—Quail, Doves.

Riverview Plantation, 294-4058. Off Ga. 311 near Camilla. Private Preserve—Quail.

Sportsman Shooting Preserve, *James L. Tootle*, 427-3245 or 427-3350. U.S. 341 near Jesup. Private Preserve—Deer, Turkey, Wild Hog, Quail, Doves, Small Game.

Two Way Fish Camp, *Frank Culpepper*, 265-8265. U.S. 17 near Brunswick. Public Land—Deer, Small Game, Ducks.

Wayne Co. Hunting Preserve, *H. E. Ogden*, 427-9180. Off Hwy. 341 near Jesup. Other Private land—Quail.

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