







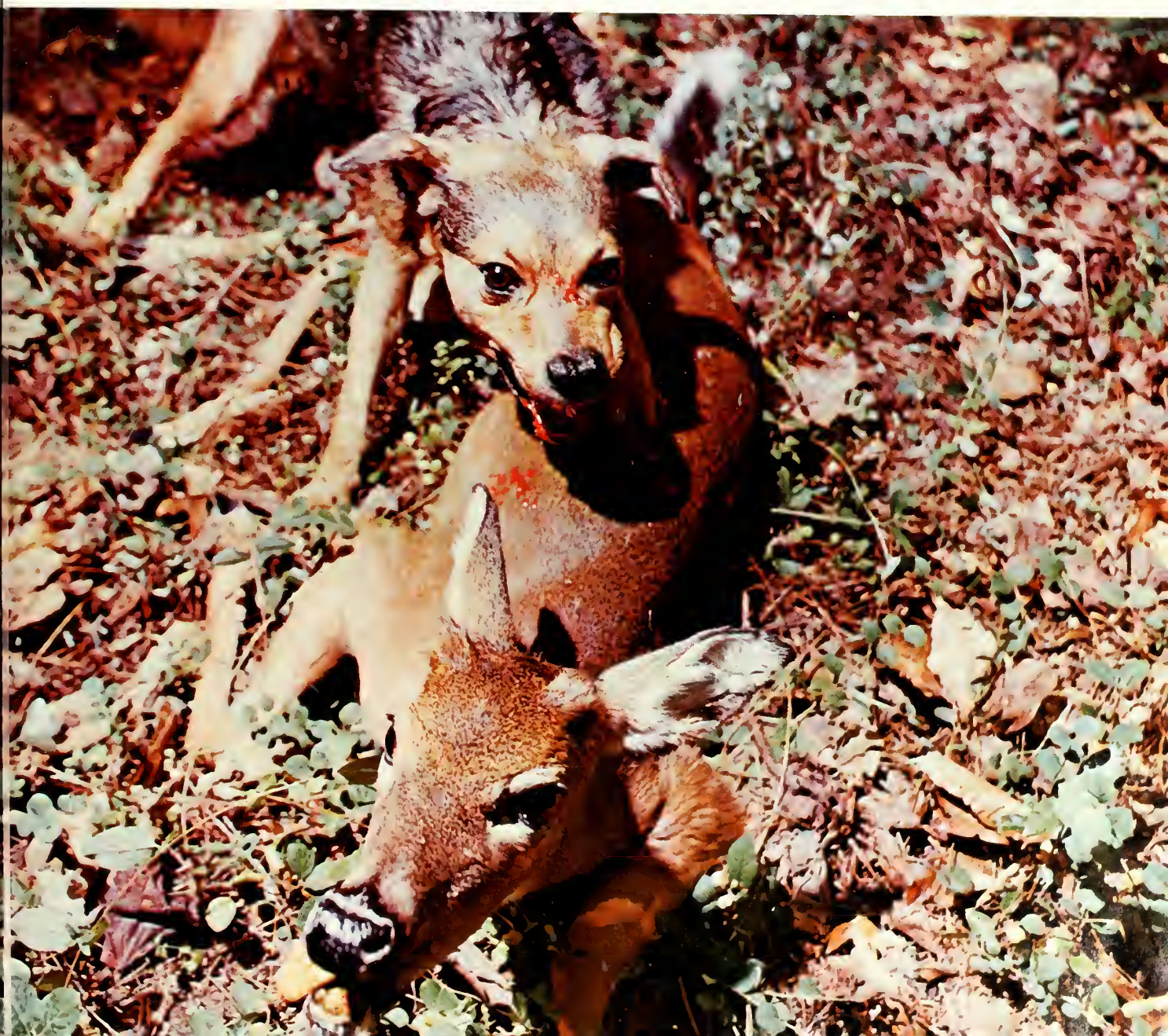
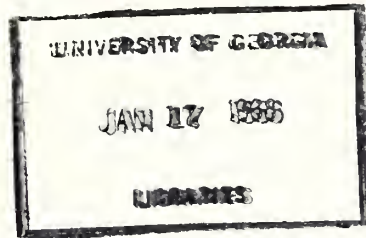
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GAME & FISH





GEORGIA

GAME & FISH

January 1968 Volume III Number 1



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation.

Contents

Dogged to Death.....	Jim Morrison	1
The Smallmouth—		
Mr. "In-Between".....	Dean Wohlgenuth	5
Insurance for Outdoorsmen.....	Bob Blair	8
Reap A Bountiful Harvest.....	Dean Wohlgenuth	10
Landowner—More Small Game.....	Jim Tyler	11
The Outdoor World.....		15
Sportsmen Speak.....		16
Sportsmen's Calendar.....		17

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Dean Wohlgenuth, Staff Writer
J. Hall, Staff Writer
Ted Borg, Photographer

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General Assembly Should Act Now

With the convening of the General Assembly for its annual session in January, now is the appropriate time for members of the General Assembly and for wildlife conservationists throughout Georgia to review proposed legislation that should and should not be approved for the good of Georgia's one million hunters and fishermen.

Here is the list of some of the most important requests for action that have been made by the Game and Fish Commission, it's director, and everyday sportsmen throughout the state:

1. The present State budget appropriation of the Game and Fish Commission should be increased by at least three-quarters of a million dollars.

Approximately \$350,000 is needed to increase the Commission understaffed force of 130 wildlife rangers by adding a minimum of 30 men to provide at least one ranger for all of Georgia's 159 counties and to hire six new biologists.

Another \$200,000 is needed for personal services to increase ranger starting salaries from \$359 to \$396 a month, which is still lower than the State Highway Patrol's \$452 a month. Raises should be given married rangers and biologists now working for the Commission to make their salaries more competitive with other governmental agencies and private industry, to attract and hold competent people.

Georgia now has six openings for game and fish biologists under the federal aid programs that it cannot fill because of low salaries in comparison to other states and the federal government. There are now more than 69 vacancies for biologists in the 13 southeastern states alone, with more vacancies constantly occurring.

Approximately \$200,000 in additional state funds are needed so that Georgia can obtain an additional \$800,000 in federal aid funds for the purchase of public hunting land. Much of this money will be lost forever to Georgia sportsmen unless the State puts up matching funds of one dollar for every three dollars of federal aid money available.

In addition approximately \$100,000 is needed in state funds to match \$100,000 worth of federal money available for the construction or purchase of public fishing lakes under the 50-50 matching fund Land and Water Conservation Fund.

2. The State Water Quality Control Board should be authorized to levy fines on polluters who allow wastes to escape into a stream, lake, and the State Game and Fish Commission should be authorized to collect damages from polluters killing fish to pay for restocking and restoration projects.

3. Owners of all size motorboats and sailboats should be required to register their boats with the Game and Fish Commission to provide identification of the boats and their owners in case of an accident, the operator or a violation of the law by the operator. A small fee of \$3.25 for a three year period on boats under 10 horsepower would help finance boating safety patrolling now paid for only by the owners of motorboats over 10 horsepower in size. Even so, motorboat fees will not completely finance the cost of boating safety enforcement.

4. The top fine that a judge can levy for hunting deer at night should be increased from the present \$200 limit to a maximum allowable fine of at least \$1,000, which is the limit for other game and fish misdemeanor cases.

5. The law governing night hunting should also be amended to outlaw hunting rabbits at night with a light "not attached to the body," a practice now legally allowed that is often used as a coverup by deer spotlighters.

6. The alligator season should either be closed or the Game and Fish Commission should be given authority to close the season to protect alligators from becoming extinct in the next few years.

In addition to these positive steps, the General Assembly can also greatly help the cause of wildlife conservation by taking no action on these two matters:

1. There should be no weakening of the legal authority of wildlife rangers to destroy dogs in the act of illegally chasing or killing deer. Thousands of deer that could otherwise be hunted by legal hunters are killed each year by wild and free running dogs. Without the existing law, the toll would be much higher each year if wildlife rangers

(Cont. on Pg. 1)

ON THE COVERS: Nature can be beautiful . . . and cruel. The sight of uncontrolled dog packs attacking, killing, and eating deer is almost never seen by Georgians, even though it occurs daily. Thousands of deer and livestock animals are slaughtered senselessly each year, yet little or nothing has been done to stop it. More beautiful, but equally rare for Georgians is the winter wonderland scene of deer standing in a new fallen North Georgia snow. Which picture do you prefer? Cover photo by Dan Keever. Back cover photo by Jim Morrison.

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Dogged to death

Loose dogs kill thousands of deer in Georgia each year, preventing their use of thousands of acres of good deer habitat and robbing sportsmen of the hunting they would enjoy if roaming dogs were controlled.



While damage to wildlife and livestock by roaming dogs is worse in rural areas, loose dogs are even more numerous in large Georgia cities where they are frequently run over by cars and trucks, sometimes being left to die an agonizing death. A dog license and a leash law, combined with humane disposal of unwanted dogs, would go a long way to solve Georgia's dog problems.



by Jim Morrison

■ Buford Withrow has a problem.

Like most people who have a big job to do, Buford has big problems, even for a quiet, hard-working mountain boy.

For two years now, Buford has been the area manager of the State Game and Fish Commission's popular 17,000 acre Lake Russell Game Management Area.

Buford lives in a small frame house near the foot of rugged Currahee Mountain, a distinctive landmark in Stephens County a few miles from Toccoa. There are no neighbors for four miles inside the locked gates of his area. But the locked gates only keep out a part of Buford's problems.

They don't keep out the dogs.

Sometimes when he finally goes to bed after patrolling his big area all day, Buford lies awake, still hearing in his mind the distant persistent barking of dogs, hot on the trail of a deer inside his refuge.

"I have trouble with them almost every day," says Buford wearily. "Sometimes I won't have any trouble for awhile, and then they'll pop up in three or four places at one time. I had one chase the other day that I never could get broke up."

"I had some reports here lately," Buford went on. "I've been trying to catch them, but it's almost impossible to catch a dog chasing a deer. You just can't get your hands on them. Sometimes I can chase them off, but they're right back again."

"I don't have many problems during the deer hunt on the area," Buford said. "People seem to keep their dogs up better then. A lot of hunters have told me they'd shoot any dog they saw chasing a deer on the area, and I guess folks around here know that. It's in the spring when I have my worst problems. That's when the dogs really work on pregnant and young deer. Some of the kills I find are on deer that were crippled on the highways, but that's just a few of them. Last week I found a doe and a little fawn. The dogs ran the old doe into the Creek and killed it, and ate her fawn."

"A year ago I found two nice bucks that I know dogs killed—one was a nice six-pointer and the other was a four. One of them was lying in the edge of the lake where it tried to get away."

Just how many deer are killed on his area by dogs every year, Buford doesn't know, but he does know that the figure is shockingly high—much higher than most hunters on the area or nearby residents suspect.

Buford's feeling isn't just a wild guess. Part of it is based on his personal observations as the chief field investigator in a recently completed research project jointly financed by the State Game and Fish Commission and the federal government to see how great the dog-deer problem is.

Over a six-month period beginning last winter, Buford devoted 89 days in 25 weeks to full-time patrolling to observe and record every dog-deer chase that he heard or saw, assisted by wildlife rangers in the surrounding counties of Habersham, Ste-

phens, and Banks, along with game management personnel. When possible, the result of the chase was also recorded.

On such a typical patrol day, Buford rises before dawn, eats breakfast, jumps in his pickup truck, and begins driving the many winding dirt roads of the heavily wooded Lake Russell area. Reaching an overlook on a ridge, Buford cuts off the truck engine, rolls down the windows, and begins listening and looking for signs of a chase. Usually, it doesn't take long.

After determining which way the dogs are headed by listening to them for a few seconds, Buford attempts to head off the dogs at a possible crossing which the deer may use. If he can get there ahead of the dogs, sometimes Buford can break up the chase, saving the deer. Sometimes.

On five occasions during those 89 days, Buford arrived on the scene too late to stop the senseless slaughter of his deer. On ten other occasions, he couldn't be sure if the deer escaped or not when the chase ended too far from the road for him to reach, so as many as 15 deer could have been killed. Happily, Buford and the other rangers were able to stop seven chases before the deer were killed and eaten. Only twice in a chase observed by Buford was the deer able to escape the scent of the dogs unassisted—a discouraging record. Except for small 80-acre Lake Russell and a few smaller creeks, there is no water on the area where deer can throw pursuing dogs off their scent before the dogs catch sight of them, typical of many areas all over Georgia, with the exception of the Georgia coastal area.

Buford is the first to admit that he didn't see and record more than a fraction of the chases and kills that actually occurred on Lake Russell during the past year. He did record more than 55 separate chases during the 89 days, participated in by 115 dogs of various species. The actual figure including the 276 days when no records were made must be higher. "Some of them could be running in there now, and I wouldn't know it," Buford honestly pointed out.

"I suspect I have more deer killed on my area alone by dogs than are killed by hunters in a lot of counties," Buford says. Even so, the Lake Russell area each year produces one of the largest total legal kills of any State Game Management Area. But without the dogs and night hunters, Commission game biologists believe the total number of deer taken would be much higher. The Russell area is understandably popular with Georgia hunters. This season 2,248 of them bagged 289 deer there, one of the best success ratios in the State.

"I don't know how many fawns they got this summer," Buford said. "The spring is a real bad time. Old does so big with unborn fawns can't run 15 minutes before they get her. On this area, I think two out of three of my does have twins, so the dogs probably did away with three deer instead of the one I find."

Buford doesn't have very many sympathizers. A few local residents know about

his problems and think that something should be done, but they seem to be in the minority to Buford. "I don't think the deer hunters around here have really woken up to the fact of how great the problem is yet. We didn't try to keep dogs off the refuge for three or four years, they'd just take it over even with as many deer as we have now. I think some people'd just sit right there and never say a thing, just let them carry off and kill every last deer we've got at the refuge—it wouldn't take the dogs long."

Where do the dogs come from? "I don't have much trouble with the fox and coon hunters," Buford says. "They keep their dogs put up when they're not hunting, and they'll do everything they can to pick their dogs as soon as possible after the hunt is over. Once in awhile their dogs might come over on the refuge, but it's usually accidental."

"It's the local people who let their house dogs run loose who give me the most trouble. Some people just don't seem to care what their dogs do. People around here won't put their dogs up, and they don't care enough to put a collar on them, let alone get them vaccinated. They get real careless. A lot of folks don't know what the dog does, especially at night. He may be all night and be laying right back in the yard the next morning."

"My biggest problem is with all kinds of house dogs and stray dogs. The hunt dogs don't give me much trouble. Collared and shepherd dogs are the worst. They are to chase deer and catch them. 90 percent of them don't bark, so I never know they're in here unless I happen to see them."

"In this area, people are getting lazy about putting out stray dogs they don't care for. They'll drive out on the back roads where nobody'll see them and turn them loose because they're too chicken to catch them themselves. If an old bitch has pups and they manage to live for three or four months, I'll hardly even catch sight of them again. They're quieter and harder to catch than a deer. They won't get within a hundred yards of me before they run off."

What is the solution to stray dogs? "Well, in Atlanta you can take them to the pound and they'll kill them for you, but there's nothing like that here in this small county. If we had a place like that set up, even for every two or three counties, they'd take them to it," Buford believes. Now, there are only 35 counties with pounds in the entire state of Georgia in 159 counties and more than 500 towns. And in many Georgia towns and counties, open garbage dumps provide free food to hundreds of dogs.

Buford says that the problem isn't limited to his refuge alone. "Last year a man near the refuge had two or three calves killed by wild dogs. A man down in Franklin County had some of his calves and pigs killed by wild dogs, and three or four head of cattle were killed over at Alto Prison by dogs."

"We need something to go by to tell the difference between the good dogs, like a collared



survey just completed by the Georgia Cattleman's Association showed that ravaging dog packs killed more than 5,000 calves and mature cattle last year in Georgia worth more than \$885,000! More than 113,000 head of cattle were harassed by dogs, running valuable pounds off beef cattle and reducing milk production of dairy cattle.

with a vaccination tag. I think we need a state law passed to require it. If you don't care enough about your dog to put a collar and a tag on it, then you don't care much about it. That's no strain on anybody. You could put a small license fee on each dog to pay a man to keep the strays cleaned up and in a pound, even if it was just one man for each two or three counties. If he had some help in putting on a campaign in the county first, he could handle it by himself."

"It'd help if people were more aware of the problem. They need to be told, but the best thing that would help would be if we had some legal backing. It's got to the point now where rangers are scared to do anything about dogs, unless they get some firm backing and more support."

Buford feels that rangers and other law enforcement personnel should be authorized to deal with stray unvaccinated dogs, but that the main responsibility for seeing that the job is done should be placed with their full time personnel, not wildlife rangers, who wouldn't have time for any other duties. "It's a job all by itself. You spend three or four hours trying to catch a dog and then not get it."

Buford's problems on the Lake Russell management area aren't unusual. They are shared by every area manager and wildlife ranger in the state of Georgia. Partially because of the study that Buford has made, something may eventually be done about it. Buford's record keeping was part of a preliminary survey to show the federal government that a serious problem exists and that it is worthy of further study. The Commission's game management chief, Hubert Handy, says he plans to ask for more detailed future studies to show what effect harassment by dogs has on deer reproduction, and what the fawn mortality is.

Handy believes that Georgia's increasingly more important deer herd would be twice as large as it now is, except for the problem of dogs, combined with serious night hunting. He cites large areas of Georgia

with thousands of acres of suitable deer habitat where a track is never seen, with only a few deer sticking to their escape route in the river swamps which serve as lanes of travel for harassed deer.

While dogs have their most dramatic destructive effect on deer, since these animals cannot escape by running into a hole or by climbing a tree, dogs also kill and destroy thousands of other game birds and animals each year, especially in the nest. Wild and stray cats are also a problem.

Just how serious the dog problem is to the important cattle industry in Georgia has always been a subject of speculation, but cattlemen all over Georgia have been jolted by the shocking figures of a survey just completed by the Georgia Cattleman's Association. The cattlemen's poll showed that more than 5,000 cattle and calves worth more than \$885,000 are lost annually by cattlemen to dogs!

The survey also showed that an estimated 113,000 head of cattle are affected by the dogs, who can run as much as ten pounds off of one beef cow in a single day or night of harassment. If a cattleman had 20 head in a pasture, he could lose as much as 200 pounds in one night from dogs chasing cows. To regain the weight, the cattleman must keep the cows longer, losing money on extra feed bills.

Dairy cattle are affected less than beef cattle, since they are kept in barns more often, but dogs even enter loafing barns to harass cows. Cows that have been run all night usually give little or no milk.

If a calf is lost, the cattleman loses a potential of about \$100 for the calf when it would have been sold. Since he must maintain the cow for a complete year at a cost of \$80 or more, he loses more than \$180 for each calf lost.

"We need to do something," says Bob Nash of Newnan, executive vice-president of the Georgia Cattleman's Association. "It's a major problem. Our survey shows that. Someone needs to have the authority



The estimated 300,000 to 500,000 unvaccinated stray or wild dogs in Georgia are a frightening potential rabies threat, especially to small children. Uncontrolled dogs often come into contact with wild rabid raccoons, foxes, skunks, bats, and other wild animals that sometimes are infected with rabies. Unvaccinated infected strays may bite unvaccinated domestic dogs that have ample opportunities to bite humans.

and responsibility to help control this dog problem on county or area levels."

"We are against a bounty on dogs," Nash says. "Then you get everybody killing dogs, even pet dogs that are from out of state." Wildlife biologists are quick to point out that bounty systems have never worked effectively because of abuses.

"We do need a law to protect a cattleman who kills a dog in the act of attacking his cattle. Even though a lot of dogs are being shot, the cattleman could be sued for damages, as I understand it. The owner of the dog ought to be liable for any damage that his dog does, but as far as I know, we don't have any such law on the books. It's not that way with cows. If they get out on the highway and somebody hits one, the cattleman's liable for damages."

"It doesn't do much good just to shoot over their head," Nash says. "The next night they're right back at it again. The problem seems to be getting worse. I hear of some people killing six to eight or even a dozen dogs a night. We're trying to keep cattlemen aware of the problem with our survey, but a strong state law is needed."

"A dog license would help to identify a dog. If a farmer sees a tag on a dog, he'll make a better effort not to harm him. If it's a neighbor's dog, he'll return him and warn him to keep them up. A tag would help the person who wants to keep his dog, especially if he strays away from home."

"It's a problem that a lot of people in the legislature recognize. I think if we proposed a sound law, it could be passed. We need to get all of the interested groups together and make a joint proposal," Nash says.

Perhaps one of the most frightening aspects of the dog problem in Georgia is the rabies threat, especially to more than one million susceptible children. Rabies is one of the most dreaded diseases. Once it has incubated in any susceptible animal, including humans, it is always fatal, with no known treatment. Death by rabies is ag-

onizing. The victim may go mad, just as a dog does. Fortunately, the disease has such a long incubation period in humans that preventive vaccine can be given possibly infected humans before the disease takes hold. 14 painful, expensive, and possibly risky injections must be given the bitten person around their abdomen every day for 14 days. The treatment is especially rough on small children.

Ironically, many of the persons who have to take rabies shots probably would have not had to take them, but stray or loose dogs often cannot be found to be confined for signs of rabies.

In recent years, scientists have learned that there is a tremendous reservoir of rabies in infected bats all over the United States. For instance, 24 rabid bats were identified in 1966-67 from almost every section of Georgia. Bats may be the source of all wild animal rabies, even though some animals apparently do not get rabies directly from the bats, but may get it through unknown carrier animals.

Raccoons, foxes, and skunks are the most common sources of rabies in wildlife, although almost any animal can get it. During 1966-67, 84 out of 300 raccoons examined by the State Health Department had rabies. 16 rabid foxes were found, and two of eight skunks tested were rabid. These three animals, especially foxes and raccoons, commonly fight with and bite dogs that are trying to kill them, making it especially important for hunting dogs to be vaccinated for rabies. However, unvaccinated stray dogs provide another excellent potential means of transmitting rabies from wild animals to domestic dogs, which frequently come into contact with humans, especially children. Thus the cycle of possible rabies infection to man is complete. The only way to break it is to vaccinate all of the domestic owned dogs and to eliminate the unvaccinated stray and wild dogs that provide the bridge to man and his dogs for rabies.

Within the abnormally high Georgia dog population lies the potential for a tragic outbreak of rabies before drastic control efforts could be taken, but most members of the public don't realize the situation, and public officials are reluctant to take drastic actions toward "man's best friend," except after emergency situations develop and public opinion demands it. The present Georgia rabies control law leaves enforcement of vaccination requirements up to the county health boards, most of whom have never used the weak authority they now have to force dog owners to get their dogs vaccinated. Only 74 counties require all dogs to be vaccinated and only the larger metropolitan counties and counties where a rabies outbreak has already occurred actively enforce the law with personnel and facilities assigned exclusively to dog control. Little or nothing is being done about stray or wild dogs, except in the larger counties and cities that can afford to operate a pound with wash-

able pens, feeding facilities, a means of exterminating unwanted dogs, and a method of disposing of the carcasses.

In most counties, nothing is being done about stray dogs. Most city and county law enforcement officers are reluctant to destroy the animals, for fear of political reprisals by negligent owners. Even in the case of cruelty or animal abandonment, existing laws are too weak to be effectively enforced, and no administrative machinery with personnel and facilities is set up on a state-wide basis to handle it.

For example, the only law enforcement officer who will normally make a case for cruelty is Bill Newman, the one man cruelty investigator of the Atlanta Humane Society, who is also a Fulton County special deputy sheriff. Newman frequently receives calls from sheriffs and law enforcement officers hundreds of miles away from Atlanta who are afraid to make cases.

Even though existing laws provide for up to a \$500 fine or six months in jail for abandoning animals, Newman has never been able to secure a conviction under the abandonment law, because of the difficulty of catching the culprits in the act of kicking a dog out of a car or moving off and "forgetting" to take dogs with them.

The cruelty problem in the abandonment of animals or in allowing them to run loose is especially acute in metropolitan areas, where thousands of dogs are run over and killed or maimed by automobiles every year. The unwanted animals create a nuisance of themselves, knocking over garbage cans, defecating on sidewalks and yards, and menacing playing children. Thousands of Georgians are bitten by dogs each year. More than 500 dogs a year are referred to the Health Department for a rabies check, usually after biting someone.

What should be done? Well, as the old saying goes, "there's more than one way to skin a cat," or in this case, a dog problem. In other states, the problem is handled in many different ways. For instance in 1965, 22 states and territories handled rabies control and vaccination through their state health department. In 14 states, the problem is the joint responsibility of the state health department and the agriculture department. In four states, the state agriculture department alone handled it. Five states leave it to local governments, while two states give the responsibility to the game and fish agency. Five states have no rabies law at all.

Provisions of the different state laws are as different as spots on two hounds, but the basic functions are similar, especially in states with the strongest and most effective laws.

Generally, the best of such dog control laws provide for a dog license, issued to the dog at the same time that he is vaccinated, usually by a qualified veterinarian. The dog is required to wear a collar with a numbered tag whenever he is not con-

fined or on a leash, although some states like Tennessee relax this requirement if the dog is actively hunting with his master. A certificate bearing the same number is issued to the dog owner, one copy kept by the veterinarian, and one copy forwarded to the health department, so that the lost dogs can be identified from the tag number.

A small fee for each dog license is charged for three purposes: to raise revenue to finance dog control efforts, to provide for identification of owned vaccinated dogs, and to discourage ownership of unnecessary, ill-kept, unwanted dogs.

The amount of the fee varies from state to state, usually depending on the amount of money to be raised. One to three dollars are the most common figures, with the fee for unspayed females sometimes being a dollar higher than for male dogs or unsexed females.

Right now, 345,000 vaccination tags are issued by the State Health Department each year to veterinarians, but the number of owned dogs is estimated to be at least 500,000, which would provide anywhere from half a million to a million dollars for dog control, depending on the license fee.

The remaining estimated 300,000 to 500,000 stray and wild dogs could then be eliminated as uncollared unvaccinated dogs, reducing the threat to human health, cattle, deer, and humanely disposing of unwanted animals.

The license money could be used to pay dog warden and to operate a pound, perhaps in a district of many counties, depending on their population. The more people, the more unwanted dogs there are. Some states even use dog license money to pay damage claims to property owners who suffer losses due to dogs, while others only make the dog owner liable for his dog's damage. Michigan requires all dogs not engaged in hunting to be confined at night, and makes any violating animal a fair game for control officers. Another Michigan act protects property owners from liability for killing dogs harassing livestock or persons or that enter the property without permission. In most state laws, penalties are often provided for dog owners who violate the laws on dog licensing and control.

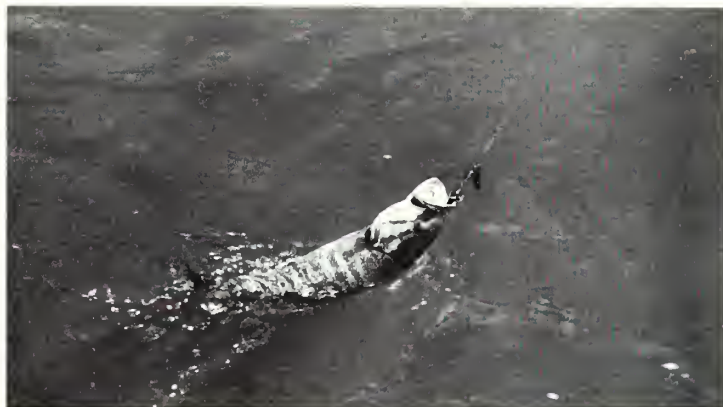
While some laws require dogs to be penned or on a leash at all times except while on the property of the owner or on another's property with permission or while hunting or working, in some states owners may let their dogs loose as long as they are under the control of the master and have been vaccinated and the owner has a certificate for evidence.

Exactly what program is the best for Georgia's needs is a matter for discussion, but the problem is getting worse. Action must be taken soon, not only for the benefit of wildlife, hunters, and conservationists, but also for livestock owners, humans, and the dogs themselves.



Got him! Will Davis gets a finger into the gills of a nice Toccoa River smallmouth, climaxing a stiff battle. Though not as large as their bigmouth brethren, smallmouths are noted as the best fighters of all game fish.

Giving a last, determined flop in an effort to shake the hook, the smallmouth now is pretty weak after a long, hard scrap. Small spinners, such as the no. 2 mepps shown, are among the best lures for smallmouths. Jigs and spinner-fly combinations also work well.



The Smallmouth MR. IN-BETWEEN

by Dean Wohlgemuth

There's a magic word for Georgia fishermen. It's "bass."

That word rings a bell loud and clear to some 180,000 Georgians — for more than 100 years, Staters fish for bass than for any other species. And they spend 4 million dollars a year fishing for their favorite.

But simply stating the word "bass" to these folks means "largemouth" bass in most every case. In future years, however, you may have to use an adjective if you want to clearly define the type of fishing you're doing.

This is because another member of the bass family is about to make a grand entrance on the fishing scene. This one is already present in the state, but he's limited to only a small amount of the state's waters.

This one is the smallmouth bass. The "true northern" smallmouth.

Lauded far and wide as the gamest, hardest fighter of all North American fish, the smallmouth bass at present is found in any numbers only in Lake Blue Ridge and Lake Chatuge, and the streams that feed these two reservoirs. There are also some smallmouths in Lake Nottely and its feeder streams.

These three drainage systems all pour into the Little Tennessee River, then the Big Tennessee, the Mississippi and eventually the Gulf of Mexico. They are the only Georgia waters where the smallmouth is native.

But this past fall, the Georgia Game and Fish Commission took a great stride in expanding smallmouth bass fisheries in the state. Many streams and rivers, and

some lakes in north Georgia, received stockings of smallmouths. Others will be stocked later.

The smallmouth is known to Commission biologists as an "intermediate" species. That is, he likes water that is too warm for trout, yet too cool for largemouth bass, bream, crappie and other warmwater fish.

In all the trout streams in the state, there is water on the lower end that is too warm for trout. Yet it is too cool for largemouth bass and other such fish.

Unfortunately, these marginal waters have been more or less barren of game fish, even though there is plenty of food such as minnows available. But nature seemed to have missed an area in supplying fish.

Here's where the Game and Fish Com-

mission comes in. An estimated 25,000 smallmouth bass, ranging in size from four to 10 inches, were distributed to these streams. They're big enough so that they can escape predators and care for themselves. They're also big enough to eat the abundance of minnows in the streams.

The Commission fully expects these fish to reproduce well, and to sustain their own populations. Then they'll be on their own, and should continue to provide excellent sport forever after.

Not only are smallmouths a topnotch stream fish, they also do quite well in reservoirs where the water is cold enough. In addition to the north Georgia streams, smallmouths have been stocked in Lakes Burton, Lanier and Clark Hill. And they've been put in the Chattahoochee River above Lake Lanier.

In streams, the smallmouth doesn't usually depend as heavily on eating small fish as does his cousin the largemouth. He'll eat helgramites, crayfish and similar things. But in a lake, he adapts himself to forage fish, since there just aren't the same kinds of food available there.

To catch him, you'll need smaller plugs than you use on largemouths. You'll also find jigs are very good, as are small spinners, spoons and streamer flies. Plastic worms are also good. In live bait, small salamanders (spring lizards) are a good choice.

The smallmouth in a lake will be in deeper water than a largemouth. Therefore, trolling is probably one of the better methods of finding him. Deep-running plugs are the order here. In casting, deep-runners and jigs bounced off the bottom work well.

In early spring, however, he can be found in the same water as the largemouth, when the surface temperature is still quite low.

Partly because of his diet, his smaller mouth perhaps, and because of the colder environs in which he lives, the smallmouth bass is a slower growing fish and doesn't get as large as his bigmouth brother. The world record smallmouth, for example, is 11 pounds, 15 ounces. The largemouth bass record is 22 pounds four ounces — taken from Georgia, incidentally.

The smallmouth bass is probably actually closer related to another prominent native Georgia species than the largemouth. Mr. Smallmouth is quite similar in many ways to Georgia's spotted bass.

Like the smallmouth, the spotted bass has a mouth that extends only to just in front of the eye. And the spotted bass has vertical markings not too dissimilar from the vertical bars of the smallmouth, although he also has some markings running laterally like those on the largemouth. And the spotted bass also likes streams. But he takes to warmer water than does the smallmouth.

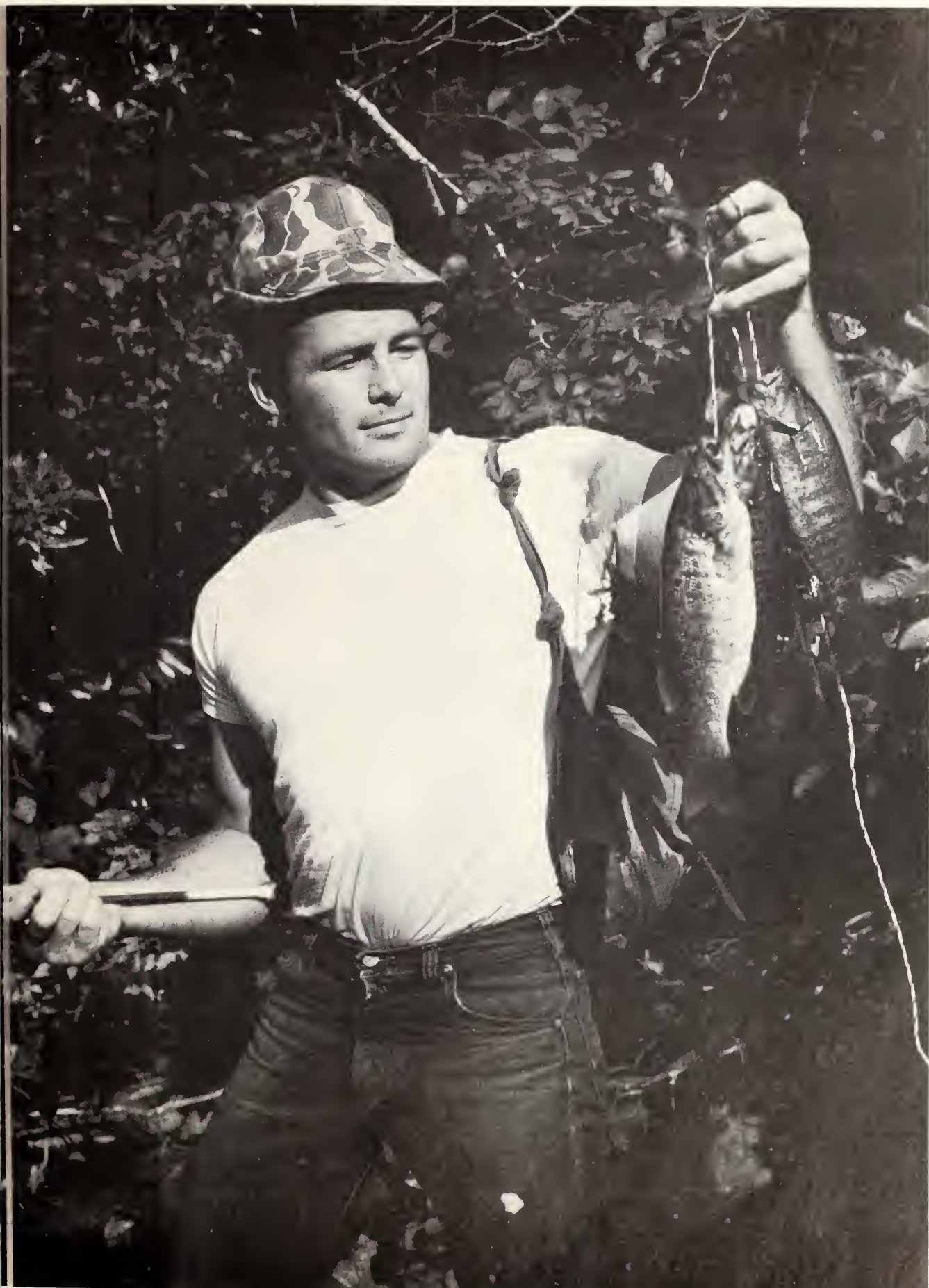
So the smallmouth is scheduled to fill a gap for Georgia anglers, and give them an even more rounded-out menu of complete fishing sport.



They're small now, but they'll be big enough to catch before long. When completed, the current stocking project of the Game and Fish Commission will provide smallmouth fishing in many streams where there is now no bass fishing at all. Fish hatchery superintendent Terrel Raney and Paulding County Ranger J. C. Meeks are stocking Pumpkin Vine Creek with smallmouth.



Smallmouth fishing in rivers like the Toccoa has much in common with trout fishing. Smallmouth however, like water which is just a little warmer than trout can take. And usually, such waters are found to be a little wider and roomier to fish in. They also are likely to be pretty tricky to wade being deeper and rather swift.



pretty fair day's catch. Jim Tyler shows off a stringer of dandy smallmouths from the Toccoa River near Margaret above Lake Blue Ridge. Note the shirt, which is wet on the bottom, thanks to wading waist deep in the cool, mountain waters.

Being careful while hunting and fishing is the best way to prevent injuries, but what if you do cause an "accident." Does your insurance cover it?

INSURANCE for OUTDOORSMEN

by Bob Blair

■ Hunting, fishing, and boating activities can be dangerous. Accidents almost daily lead to injuries, with someone being required to pick up the tab for medical bills and the injured person's loss of pay. More than one outdoorsman has been sued for accidentally causing death, injury, and property damage. However, it may surprise you to learn that the insurance on your home probably gives you insurance protection while afield.

In these modern times, insurance is almost a necessity for financial security against lawsuits, theft, damage you may accidentally cause to the property of others, hospital and medical bills, and the wide variety of costs that can result from an accident. But, this is not a sales pitch to sell insurance for your hunting, fishing, and boating activities, but rather a tip from the Insurance Information Institute that you already may have such insurance protection.

Last year there were 29,500 people killed in home accidents, while another 4.4 million people received disabling injuries. Also, in 1966, there were 53,000 people killed in motor vehicle accidents, and 1.9 million received injuries.

Compare to these statistics the accident records on outdoor activities: 2,600 people were killed in firearm accidents, many of which occurred while cleaning or playing with weapons; and there were 1,300 deaths that can be attributed to drownings or other causes of death in boating accidents in 1966.

It appears logical to draw the conclusion that you are safer while afield than

you are while you are at home or while driving to or from an outdoor expedition. However, remember that these statistics can be misleading, since there are many more people driving on our highways than hunting in our fields . . . fortunately.

Outdoor sportsmen are truly exposed to numerous potential dangers. It is no trite phrase that a gun — whether or not it is loaded — is not a toy. Similarly, careless handling of a boat — and even a fishing rod — can lead to a serious accident.

Of the 2,600 accidental deaths involving firearms, about 600 to 800 a year are the direct result of hunting. The National Rifle Association reports six nonfatal hunting injuries occur for each fatality. More than half the weapons involved are shotguns, more than one-third are rifles, and the remainder are handguns. Nearly one-half of the victims are under 25 years of age, and more than one-third of these are in the 15 to 19 age range.

Three out of four boats involved in accidental deaths were less than 16 feet long. Only four per cent were longer than 26 feet. Six out of ten boats were open mo-

torboats; another one-fourth were rowing boats or canoes. A lifesaving device was not used by 666 of 757 drowning victims of boating accidents, on whom data were available in the U. S. Coast Guard 1966 Boating Statistics report. Yet 55 per cent of the victims who did not use a safety device, had one readily available on the boat.

Statistics are helpful in teaching us defensive measures. Daily news reports of traffic accidents have convinced most of us that automobile insurance is essential. Statistics also give us pretty good reasons for having insurance on our homes and businesses. But are you insured while hunting, fishing, or boating? The main reason for your paying auto insurance premiums is to be able to pay for the damages you may cause to other people, but what about your liability while nestling in the arms of Mother Nature?

Chances are the insurance on your home — of all things — includes liability protection for you while hunting, fishing, or boating. In recent years, insurance companies have combined several different insurance policies into what is called a





homeowner's Insurance Policy." This package policy that combines property damage (such as fire, wind, vandalism, etc.) and personal liability.

If you have a homeowner's policy, which is sold by most fire and casualty insurance companies, you have liability insurance covering your outdoor sports activities. Personal liability insurance protects you in a suit or a claim is filed against you or persons who consider you responsible for their injuries or for damage to their property. This protection applies not only to accidents occurring on your premises, but also to those occurring elsewhere if the injury or damage is caused by you, a member of your family or your pets. When such situations arise, your insurance company pays the legal costs of defending you, even though the claim or suit may be groundless, false, or fraudulent. If your insurance company agrees — or if a court decides — that you are legally liable, your insurance company will pay the damages assessed against you up to the limits of your policy.

Medical payments and physical damage to the property of others are also part of the liability provisions in your homeowner's insurance policy. So that you can meet your moral obligations for relatives or minor injuries you may cause to others, a policy is designed to pay the medical expenses, usually up to \$500, although higher limits can be obtained. Homeowner's policies usually will pay up to \$250,000 for damages you may accidentally cause to the property of other people. Both the medical payments and physical damage to the property of others are provisions designed to handle small claims regardless of your personal liability.

Now, you'll realize the extent of protection you receive in outdoor sports by keeping in mind that your homeowner's policy stipulates the liability protection afforded to you applies not only to accidents occurring on the premises of your house, but also in those accidents occurring elsewhere "if the injuring or damage is caused by you, a member of your family, or your pets."

This is wide protection that will cover almost every conceivable hunting, fishing, or boating accident. This is necessary when you stop and think of what can happen when you go afield. It takes only one careless moment to spell death or serious injury to your hunting companion. Your prize bird dog may nip a game warden. If you're trigger happy, you may shoot a farmer's cow instead of deer. A faulty cast can put a fishing plug in your partner's eye. A submerged log can cause your boat to capsize, drowning or injuring your friend's teenage son. Or your hook on the golf links can send your ball flying at 250 miles per hour into a group of other duffers.


If you live in an apartment, or a rented house, you may have or can obtain an apartment dweller's policy — sometimes called a tenant's policy — that provides most of the same coverages as the homeowner's policy. However, the apartment dweller's policy does not provide for insurance for damage to the building, which of course would be insured by the owner.

Your homeowner's or apartment dweller's policy provides for the insurance company to pay for thefts and certain causes of damage. Under usual conditions, your policy will pay for the theft of your outdoor equipment. When away from your

house, your possessions — which would include outdoor equipment — are normally insured up to \$1,000.

If you have or purchase a boat, consult with your insurance agent. Normally you have a property insurance limit of \$500 on boats, trailers and motors under 24 horsepower, but these are not usually insured against windstorm, hail or flooding. Normally a boat is not insured for property damage when being used in the usual manner. Usually medical payments and personal liability coverages of a homeowner's policy do not apply on an accident with a sailboat 26 feet or more in length or with an outboard motor you failed to mention to the insurance company. Your insurance agent can tell you about special boat policies to give you coverage not afforded in your homeowner's policy.

Basically, we have been discussing coverages under the Broad Form of the Homeowner's Insurance Policy, which you may or may not have as part of your insurance program. Since insurance is a matter of a contract between you and your insurance company, it is possible that the contract you have may be slightly different than the form used by other companies.

Consult with your insurance agent if you have any questions about your insurance policy. He can help you obtain a broad insurance program that will enable you to have sound protection while hunting, fishing, and boating. A sound insurance program will protect you from possible financial disaster as a result of an accident. However, remember that safety is the first rule that will help you avoid a costly accident. 

Georgia's famous Callaway Gardens will be the location for the important 1968 convention of the Outdoor Writers Association of America, June 23-29.



Georgia's Outdoor Resources Will Soon . . .

REAP A BOUNTIFUL HARVEST

by Dean Wohlgemuth

■ Brace yourself, Georgia . . . there's an invasion coming.

The invasion, however, will be made up entirely of "friendly forces." They are coming to give Georgia something the likes of which the state has never seen.

The "invading force" is OWAA — Outdoor Writers Association of America. OWAA is coming to Georgia in June of this year for its annual week of convention. The meeting will be June 22 through 29 at Callaway Gardens, near Pine Mountain, Ga.

While they are here, these OWAA members will be looking for story material to take home to their own newspapers, magazines, radio and television stations and such outdoor news media. Some will make motion pictures of outdoor sports here. Others will take still pictures. Every kind of publicity you can think of — and some you can't — will be given to the state's outdoor resources.

OWAA boasts some 1,200 of the very best in the field of outdoor journalism, the cream of the crop. The membership rolls are a genuine "Who's Who" in the field. You'll recognize many of the names: Homer Circle, OWAA President and special features editor of *Sports Afield Magazine*; Hurley Campbell, OWAA vice president and editor of *Southern Outdoors Magazine*; Charles Elliott of Georgia, Southern Field Editor of *Outdoor Life*; Clare Conlev, managing editor of *Field and Stream*; Hank Bradshaw and his team-mate wife Vera, topflight free-lance writers and photographers.

And there's George X. Sand, one of the finest outdoor photographers in the world; and C. B. Colby, camping editor of *Out-*

door Life. Pick up a copy of any good outdoor magazine. There, in the table of contents, are many members of OWAA.

Attending the convention will be in the vicinity of 250 to 300 writers. Most of them will bring their wives and children.

Carefully kept figures of OWAA show that members are 55 per cent newspapermen, 23 per cent are magazine staff writers and 46 per cent of all members — whether newspapermen, staff writers or whatever — sell stories free lance to magazines, particularly the top national outdoor magazines.

A newspaper writer will probably gather several columns or features for his newspaper while in Georgia. In addition, he'll likely try to sell at least one story to a leading magazine.

And there are 15 per cent of the members who are radio men, and an equal per cent who are on television.

Who knows — perhaps some of the 17 per cent of the members who are book authors may write best sellers on Georgia outdoor sports!

These writers will be coming to the convention (which actually would be more accurately described as a workshop) for two reasons. One of course, is to attend the workshop sessions to further their learning and keep abreast of the times, in their own craft. Top men of all phases of outdoor journalism field will instruct members in workshop sessions.

In addition to this, however, these men (and some women, too) will be here to find stories. Those who work for news media must justify their trips with good stories. Free-lancers must find a way to make the trip pay off.

The payoff does not belong strictly to the writer. It also comes to the host state. It is probable that the state will reap harvest of several million dollars worth of the best publicity there is — publicity that money cannot buy.

For a week preceding the convention and a week afterward, OWAA members will spread out all through the state in search for their stories. Some will be going trout fishing in the mountains. Others will be fishing on the coast. Still others will fish the warm waters of the state for bass, crappie, bream and other such species.

Georgians who have hunting and fishing that should be written about and who can provide overnight lodging and/or boat and motor with a guide for several writers are urged to let myself or Jim Morrison of the Game and Fish Commission's Atlanta office know about it.

These stories will bring to Georgia people from all over, who wish to sample the good things we have to offer. And that means a tremendous boost to the Georgia economy.

Nonresidents out of necessity spend much more money while here to go hunting or fishing, than do residents.

What is OWAA? It is an organization of outdoor journalists, certainly. But it is more than that.

OWAA has strict membership requirements. Its members must be actively engaged in the field, and must adhere to strict standards of high ethics and professionalism. Applicants must prove themselves in order to become members. And they must withstand thorough screening of the membership committee.

OWAA is growing. It is now 47 years old. It started with only 19 members. Now, most major newspapers carry outdoor news and features. More outdoor magazines are published. Many broadcasting stations have outdoor programs. The organization and the field of outdoor journalism is booming.

Why was Georgia selected for the 1968 convention, over two other states — Michigan and Maine — who present strong bids? Because Georgia has one of the widest varieties of outdoor sports activities available anywhere in the nation. And it has been an untapped source of topnotch articles in this line. Very, very little has been written in major publications throughout the nation on what Georgia has to offer.

So brace yourself, Georgia — and get ready to reap the most bountiful outdoor publicity harvest the state has ever enjoyed! ☞

Author Dean Wohlgemuth is an information officer for the Game and Fish Commission and a staff member of *Georgia Game and Fish Magazine*. He has been named national general convention chairman for the Outdoor Writers Association of America convention which will be held at Callaway Gardens, June 22-29.

Landowner, More Small Game?

Jim Tyler

When we started planning a booklet on all game management for landowners, eventually anyone who has access to some land would like it to provide more small game, the *Game and Fish* staff decided to do a stunt like some of the big, BIG magazines do. *Look* and *Post* magazines sometimes will run condensed versions of a booklet to be released the next month.

You too will have a booklet, "How to Manage Small Game on Your Land," ready for you next month. The booklet will have information on five species: mourning dove, bobwhite quail, wood duck, gray partridge, and the bouncing cottontail rabbit.

For each species we rounded up one of the game biologists, roped him to a typewriter, and picked his brain. We had each of them write on the reproduction, food habits, predation, and management for his particular animal. Therefore, the words of the booklet are straight from qualified, experienced sources.

The following is a trip through the booklet.

For proper game management technique is a lot of stuff. It is a vastly complex science, like anything big and wavering, a supplanting here and there is a big help. The individual landowner's efforts ARE important. And, besides helping the overall game management scheme with his individual contribution, the landowner reaps a big harvest on his home grounds. If he has his land right—bingo—more game in the pot.

Mourning Dove Management

A tall, rangy game biologist by the name of Bob "Slim" Howarth tells about dove management:

Management of fields for dove shooting can be grouped into two categories—fields to be shot over during September, and fields to be shot over in December and January.

Management for Dove Fields to be Hunted over in September

Brown-top millet is a good grain doves eat readily where it is available on open ground. It should be planted on a well prepared seedbed in rows, three feet apart, at the rate of 10 pounds of seed per acre. Four hundred pounds of 6-12-12 fertilizer per acre should be applied at planting time. Planting should be done between May 20 and June 10. The young growth of millet should be side-dressed with 100 pounds of ammonium nitrate per acre. For maximum seed production, it will be necessary to cultivate the stand to keep the middles as clean as possible and also to provide an open feeding area. Fields planted in this manner should be a minimum of 5 acres and should be left unharvested.

Dove proso (millet) is another grain very palatable to doves and should be planted in rows, three feet apart, at a rate of 6 pounds of seed per acre. Fertilizer and nitrogen applications should be carried out the same as for brown-top millet. Planting time would also be the same as brown-top millet. Fields planted to dove proso should be a minimum of 5 acres. The dove proso should also be left unharvested.

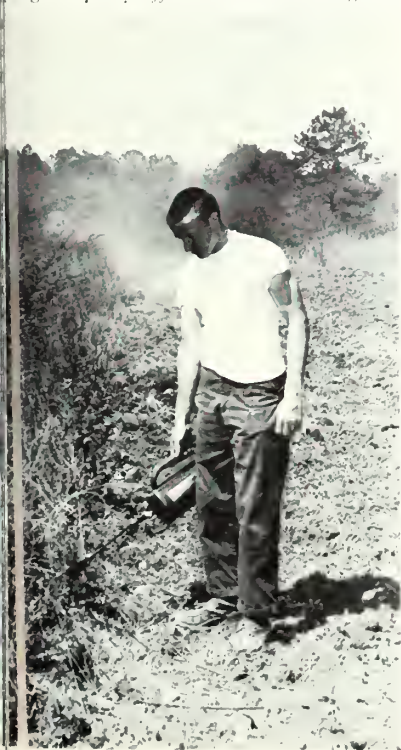
Of course, a great deal of the dove shooting that occurs in September takes place on millet fields that have been combined for seed or on which the millet has been mowed, raked, and the hay baled. These fields offer stubble type feeding conditions for doves. Hogged off peanut fields in south Georgia also offer ideal feeding conditions for the birds.

Recommended Management for Dove Fields to be Hunted over in December and January

Milo is eaten very readily by doves in the late fall and winter months. Early in May the land for planting a milo field should be harrowed into a good seedbed. Two to three weeks following this operation, harrow again. Apply 400 pounds of 6-12-12 fertilizer per acre at planting time. Seed should be treated with one-half ounce Arasan per bushel of seed. Planting should be carried out between May 20 and June 10 and seed should be planted in rows three feet apart at the rate of six pounds of seed per acre. When the plants are six weeks old, side-dress with 100 pounds of ammonium nitrate per acre. Cultivation should be carried out the same as would be carried out on corn. Fields planted to milo should be a minimum of five acres.

More dove shooting takes place on harvested corn fields during December and January, especially where the corn has been harvested with a corn picker. Hogged off corn fields in south Georgia also offer very attractive feeding conditions for doves, and good shooting situations.

Controlled burning is one of the most economical means of providing a better natural food supply for small game, especially quail and rabbits. Bush clearing is equally effective, but more difficult in woods.





Landowners who are willing to go to the time and expense of planting food patches in small woodland clearings or along powerline right of way can improve their quail and rabbit hunting while making hunting easier.

Opportunities for management of a field for both the early and late dove season also are being carried out by some landowners. One practice is planting twelve rows of milo, three feet apart, alternating with twelve rows of brown-top or dove proso millet, three feet apart, across a field of at least ten acres. Both the milo and the millet should be cultivated at least two times, and the grain left unharvested. Planting of both the milo and the millet should take place between May 20 and June 10. This also will improve quail food and cover conditions and result in better quail hunting.

Summer Feeding Fields

Another dove habitat management technique of great value is providing summer feeding areas for breeding population of adult doves and the young they have produced.

This can be accomplished by planting a one to two acre field to wheat at the rate of $\frac{1}{2}$ bushel per acre. This will result in a thin, sparse stand in which doves will feed in July, August, and September. The wheat should be left unharvested in this situation. This should hold a larger population of doves in these local areas until the opening of the September dove shooting season.



Bobwhite Quail Management

Game biologist Ron Simpson, who works exclusively with quail, writes about the bobwhite:

Good distribution or mixing of cover and food is the most important quail management practice that can be used. It is a way of providing a minimum amount of favorable habitat.

This consists of diversifying or varying the major cover types of forest, brush, grass, and cultivated land so that the different types meet several times on an area, instead of only once or twice. However, because of economical reasons this is not usually feasible.

Controlled burning of woodlands, especially pine, can be of great value to quail. The burning should be conducted in January or February, if possible, with fire lanes at least 6 feet wide constructed every 500 to 800 feet. Burning will remove the thick litter layer usually present, and will stimulate the germination of legume seeds. The fire lanes constructed for the controlled burning, as well as providing open areas for quail, can be planted with food plants such as clemson pea and Korean lespedeza. Additional cover and food may be provided by having a covert, an area of hawthorn or wild plum 20 to 30 feet in diameter, for every 10 acres of pineland. Fire is kept out by encircling it with a fire lane. The fire lane can then be planted with food plants.

In woodland where burning would not normally be conducted, such as in high quality hardwoods, cutting operations such as thinning can be used. This opens the forest canopy, and allows food and cover plants to become established. This, however, is not a permanent or very productive type of habitat improvement. A more permanent type of improvement is creating small open areas of about one-half acre through the stand. These are then planted in food plants such as clemson pea or partidge pea.

Pastures can be converted into habitat more favorable for quail. Thickets and cover strips of plants which cattle seldom graze, such as wild plum, hawthorn, and greenbriers, could help improve quail habitat by providing cover and protecting food plants. Food and cover patches can be fenced to keep out cattle but this is expensive.

Habitat on cropland can be improved by planting a 15 feet wide strip of bicolor pedeza as a border strip between the field and woodland. Allowing fence rows to revert back to shrubs and weeds is also beneficial. If cultivated areas are extensive, cover strips or lanes can be developed across such areas to greatly improve habitat for bobwhite.



Wood Duck Management

David Almand, wildlife specialist, University of Georgia Extension Service, carries the wood duck banner:

Since nest sites can be provided by suitable nest boxes, persons interested in wood duck, either for its beauty or game, can do much to help the species.

Erecting wood duck nesting boxes is not a new management idea. Attempts to increase wood duck numbers by putting up nest boxes dates back to the 1920s. Since then, many thousands of boxes have been put up by various conservation agencies and groups.

Boxes have been made of both wood and metal. Wooden nail kegs, ammunition boxes, and metal grease drums have been tried with varying degrees of success. Wooden boxes are better for use in Georgia. Cypress, redwood, or treated pine boxes will last five to 10 years longer.

The height of the box is not considered too important as long as it is at least 10 feet above the ground. Boxes placed 10 feet above the ground on trees with limbs are less likely to be tampered with by humans. If the box is put up over water, be sure to put it high enough so it will not be flooded by high water.

ne of the best ways to insure that nest
es will be used is to put them in areas
re wood ducks have been known to

The best locations for boxes are
eaver ponds, oxbow lakes, and in fish
ds near wooded areas. Wood ducks
er these areas to large bodies of open
er.

he ideal place to put up a nest box is
an isolated tree or snag over water.
eline trees are also satisfactory. If
e are no trees or snags available,
you can drive a wooden or metal
into the pond bottom and attach the
to the pole. Boxes installed over wa-
re usually more successful than those
lled over land because there is less
ce of the nest being destroyed by
ators or by curious humans.

ne of the prime considerations in
ting nest boxes is to place them where
will be easily seen by wood ducks.
ey can be easily seen from any direc-
then you should erect them facing
n or south. Less light will enter the
through the opening when they are
g thus. If the boxes are erected in a
led pond, they should always face an
patch of water, if possible.

you want to keep a record of nesting
ities, the boxes may be inspected in
to collect the necessary data. Check
box *only* during the middle of the
as the female is less likely to be on
nest at this time. **DO NOT** make fre-
t visits to the nest box. If the female
sturbed too much during nesting,
will leave the nest and start a new one.
uring late January, inspect the boxes
make them ready for the coming sea-
Clean out all debris, add sawdust and
ngs, if needed, and make necessary
rs. Also, remove any vegetation that
t hide the box from the ducks. Boxes
are not maintained properly contrib-
ttle.

ood ducks, along with other ducks,
be attracted to your pond in the fall
winter months by planting corn and
n-top or Japanese millet and flooding
en ripe. The corn should be planted
e spring and the millets in July or
August.

uring the nesting season, these ducks
be attracted to your pond by artifi-
eeding.

th the increased drainage of creeks
swamps and general destruction of
duck habitat, nesting boxes can
make up for the loss of natural habi-
Although nest sites are only one re-
ment in managing wood ducks, natu-
ities are so scarce that nest boxes are
important and logical way to contrib-
to the welfare of this important bird.
should be remembered that wood
k nest boxes may do more harm than
d under certain conditions. Unless
ected by predator guards, the boxes
become a death trap for the female.
y through a sound, well-planned pro-
n will nest boxes be of any value.



Selective timber cutting leaving ample den trees and acorn producing trees is the best way to insure continued good squirrel hunting in woodland areas.

Gray Squirrel Management

Our chief of game biologists, Hubert Handy, reared in the Georgia mountains, gives his advice on squirrel management:

The gray squirrel is fundamentally an inhabitant of hardwood forests, however, he can often be found in mixed stands of pine and hardwoods, especially if the hardwood are oak trees. Preferred habitat consists mostly of mature hardwood trees where some can be used as dens and the others are mast producers.

Forestry practices in Georgia today, doing away with hardwoods and planting stands of pine, are incompatible with the production of gray squirrel. The numbers of gray squirrels throughout the state are in direct ratio to the amount of food available from hardwood trees.

Since the emphasis in Georgia is placed on pine production, little room is left for

squirrel habitat. Only those areas that are inaccessible or too wet for heavy machinery are left for hardwood production. And, sometimes, the hardwoods produced in these areas are scrubby, or poor quality, and poor mast producers.

Gray squirrels do not hibernate, as do chipmunks, but fast for varying periods during severe winter months. These periods usually are spent in deep sleep in hollow trees and several squirrels may use one den tree.

Landowners desiring squirrels must provide food by the wise use of their hardwood forests. One large den tree should be left for each twenty acres of suitable forested habitat. One of the difficult things wildlife managers must get across to landowners is the value of wildlife on their land. Oftentimes the wildlife on a given tract of land is more valuable

than the timber the land will produce. Because wildlife is taken in such light regard by land managers, this value never enters into their calculations when they are planning the use of large tracts of land.

Sportsmen wishing an abundance of squirrels should not expect the season to extend into the spring breeding season nor should they expect the season to open in the fall until the late litters are able to fend for themselves. Oftentimes conservation agencies are forced to set seasons that are contrary to nature's reproduction cycle. It is especially bad when these seasons extend into breeding season. When the adults are killed and the young are left in dens and nests unable to fend for themselves, the slaughter can greatly reduce the breeding stock for next year's hunting.



Rabbit Management

Soft spoken, hard thinking game biologist Joe Kight has a few words on rabbits:

Intensive management is not necessary to provide good rabbit hunting. About all the rabbit needs is something to eat and a place to hide. It is a "home body" and doesn't like to wander too far away. Even when pursued by beagles, it will usually circle back to where it was jumped.

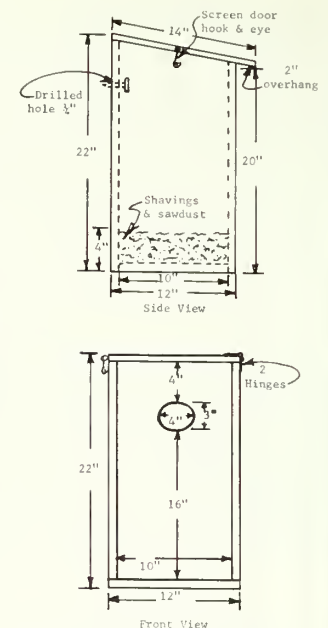
The cottontail prefers "edge" type habitat. This is available along fields, fence rows, cut over lands or any "brushy" area. Perhaps the easiest way of improving rabbit hunting is to build brush piles. Grass

and weeds will grow in and around them providing food and more cover. The piles should be 10 to 15 feet in diameter and 4 to 6 feet high. This is an immediate step to improve rabbit habitat, but permanent strips of food and cover should be developed and maintained for continuous good rabbit hunting.

Diversity is the keynote here. Several small patches of food and brush are much more valuable than one large area of each. Strips are perhaps the easiest to provide and are just as valuable to rabbits. Strips left along fence rows, drainage ditches, pond edges, streams, along wood lots and orchards, field roads, or any area that can be allowed to revert to weeds, briars, sumac, and other brush will greatly benefit rabbits. Strips of food planted beside the strips of cover make life easier for rabbits and also help in erosion control. Lespedezas provide good food during the spring and summer, and oats, wheat, and other small grains furnish good winter food. Clovers of all types are excellent rabbit food. Recommended agricultural practices as to when to plant, kind and amount of fertilizer, and other necessary information can be obtained from your county agent.

Heavy hunting does not seem to bother the rabbit population from year to year. As with most animals, rabbits cannot be stockpiled. If the hunter does not harvest them, then disease, weather, starvation, and predators will.

NOTE TO LANDOWNERS: The Game and Fish Commission stands willing and able to give you technical assistance for improving small game populations on your land. The money and the work, however, has to come from you. 🐇



Wood Duck Nesting Box

Materials

1" x 12" rough cypress, redwood or treated pine lumber (about 9½ feet)
3/8" x 3½" hanger bolt
3/8" wing nut and washer

3" lag screw and flat washer (if hanger bolt is not used)
2" screen door hook and eye
2 small hinges
Shavings and sawdust as shown

A grain field like milo or hygear, brown millet, or corn can provide excellent cover shooting if the field is planted and harvested with the opening of dove season in mind.



powerless to act.

In fact, the time has come in Georgia for the stringent regulations and control of wild stray dogs which are doing more than \$5,000 damage a year to beef cattle alone. More than half a million unvaccinated dogs are a staggering rabies threat to Georgia's four million people, including one million highly vulnerable children. Unwanted animals should be disposed of in a humane fashion, rather than being abandoned by the thousands on country roads to either die of starvation or survive by wantonly destroying wildlife, private property, and public health.

No new State legislation (or federal) is needed to govern or further restrict the purchase, possession, or use of firearms of any kind. Existing laws are adequate for this purpose if they are enforced. It is already illegal to carry a pistol in Georgia without a permit from the county ordinary, illegal to carry it concealed, illegal for minors to purchase one, illegal to use it in the commission of a crime. Stringent enforcement of the law by law enforcement officers when a crime occurs and severe penalties and sentences handed out by judges and juries when violators are convicted do more to stop crime than any law which is so to do the impossible.

Honest citizens whose conscience will not let them to disobey a foolish and ineffective registration law should not be forced to be reprimanded like a common criminal and subjected to a seven day investigation of their private lives by sometimes possibly biased local law enforcement officials before they can even have a pistol or other firearm for home use, target shooting, or lawful hunting. Criminals will always be able to obtain guns without dealing them or buying them undercover. The net effect of most proposed laws would be to harass honest citizens, especially those who have never had any dealings with police and who do not want any. Many people who have a legitimate need for a gun would buy one for that reason alone. In the case of sporting firearms and ammunition, a reduction in gun sales would reduce the federal aid and tax funds available to the states for wildlife restoration and purchase of public hunting land.

J. M.



the outdoor world

State Sportsmen Oppose New Gun Laws

Meeting at their annual convention in Macon Dec. 2-3, the Georgia Sportsmen's Federation urged the Georgia General Assembly and Congress not to pass new restrictions on the purchase and ownership of firearms that are being proposed by some legislators as anti-crime bills.

Earlier, more than 200 convention delegates heard U. S. Congressman John Flynt strongly deplore proposed gun laws in Congress, including one which Flynt said "would even prohibit my two sons from trading shotguns with each other."

As an alternative, Flynt proposed that stricter penalties be placed on criminals who use a firearm in the commission of a crime.

"Senator Kennedy feels the way he does about this matter because of the terrible incident that happened to his brother," Congressman Flynt said, "but no law in the world could have prevented the irresponsible act of a madman."

Following his address, Congressman Flynt was presented a plaque by the Federation in recognition of his efforts to halt unwise gun legislation.

In another resolution, the Federation urged the General Assembly to raise the budget of the State Game and Fish Commission next year by three-quarters of a million dollars. Commission Director George T. Bagby told the group that the money would be used to hire at least one ranger for every Georgia county, to raise the salaries of rangers and biologists to more competitive levels, and to purchase new lands for public hunting and fishing.

The Federation re-elected attorney James L. Adams of Tucker as its president for the coming year, along with executive vice-president Clyde Greenway, also of Tucker. Billy Lane of Claxton was elected secretary-treasurer to succeed Benson Ham of Forsyth.

Named as congressional district vice-presidents were Felton Mikell, Statesboro,

1st Dist.; W. H. Gilbert, Albany, 2nd Dist.; Charles Ingram, Decatur, 4th Dist.; Tommie Holliman, Thomaston, 6th Dist.; Travis Mason, Bremen, 7th Dist.; Lewis Raulerson, Haylow, 8th Dist.; Trammel Carmichael, Canton, 9th Dist.; and David Almand, Athens, 10th Dist.

With more than 5,000 members in 60 boating, hunting, and fishing clubs, the Sportsmen's Federation is the largest conservation organization in Georgia.

Next month's Game and Fish magazine will feature complete picture coverage of the Federation Convention, with details on the 1967 Conservation Awards Program winners.

Athens Conservation Conference

"Conservation Is Common Sense" is the theme of the first state-wide conference on conservation to be sponsored by the Georgia Conservancy, January 19 and 20, 1968, at the Center for Continuing Education in Athens. The purpose is to bring together diverse conservation interests for the purpose of identifying and exploring mutual concerns to further the common cause — a coalition for conservancy.

Many local and national conservationists will speak and hold seminars on conserving wilderness and wild life, increasing recreational opportunities in Georgia, improving environmental conditions in cities, and making communities more aware of their conservation responsibilities.

The conference is an opportunity for Georgians to learn about new ways to improve and conserve natural resources and to discuss and exchange ideas which will help improve the state.

For more information about the conference, write Mr. George S. Brooks, Georgia Conservancy Conference, Center for Continuing Education, University of Georgia, Athens, Georgia 30601.



Time to Smile

Henry Scott of Atlanta has plenty of time to smile over the 10 3/4 pound bass he got in a private lake at Greenville, Ga. John Scott caught the big bass on a shiner using a reel with 10 lb. test line. His fellow employees at the Associated Press office in Atlanta took up a collection to have his fish mounted.

Sportsmen Speak...



HIGH POWERED RIFLES

In your article "The high-powered rifle—friend or foe?" you state that "the shotgun has been involved in a much higher percentage of hunting accidents and fatalities, with only a handful of accidents involving big bore rifles." Why don't you look at all of the facts instead of just the ones supporting your approval of high power rifles?

The chart on page 9 places each gun on an equal basis, thus 100 hours of rifle hunting as compared to 100 hours of shotgun hunting. Is this comparison fair? Let us compare the *total number of hours* spent by hunters using shotguns compared to hunters using rifles. You have overlooked the fact that hour for hour the shotgun is used literally hundreds of times more than high power rifles.

Let us rewrite part of your article and substitute a few words and I think you will see exactly what I mean —

"the Ford has been involved in a much higher percentage of *auto* accidents and fatalities, with only a handful of accidents involving *Henry J's*."

From the above would you say that Henry J's are safer because fewer people are killed by them? Of course you wouldn't, so why say high power rifles are safe because fewer people are killed by them? Fewer people are killed in Henry J's too but they are not as safe as Fords. The high power rifle is used much less than shotguns and therefore results

in fewer accidents and fatalities. If you use an hour for hour comparison I am sure that you will find the rifle a much more dangerous weapon than the shotgun.

As for the buckshot problem, do as some of the Federal Refuges, do not allow their use, use only slugs. If you ever decide to use an hour of rifle use compared to an hour of shotgun use instead of a rifle versus shotgun comparison please let me know.

H. Eugene McKinley
Warner Robins, Ga.

The point you have made concerning the relative number of hours that the shotgun is in use compared to the high-powered rifle would be interesting to compare, if such figures were available.

Certainly no one would argue with you that rifles are not used as many hours for hunting as shotguns, since the rifle is not suitable for hunting many game species, usually small game and birds.

However, the editorial was concerned with the use of shotguns and rifles for deer hunting only, not for small game hunting.

We know of no figures which have been compiled in Georgia to indicate what percentage of hunters use a shotgun for deer hunting and what percentage use a rifle. Therefore, neither of us can base our opinions on statistics of this type. However, we would not feel unsafe in saying that more than 50% of the deer hunters in Georgia use a high-powered rifle rather than a shotgun for hunting deer, and that many more would use such a rifle if they could afford it and did not already own a shotgun.

The number of hours of rifle hunting would at least match and probably exceed the number of hours of shotgun hunting, especially since the largest percentage of our deer hunting goes on in

middle and north Georgia where the shotgun is not as suitable as in the the south Georgia areas where hunting is the "jump shot" variety along the woods, roads, and firebreaks as the deer r across the clearings in front of the de

Figures of the National Rifle Association show that 90% of all accidents which a hunter shoots another hunter occur within 90 yards, which is let range for the shotgun or rifle. The 19 Compilation of Hunting Accidents by the National Rifle Association indicated that only 103 out of 2,267 firearm's accidents that occurred were further than 100 yards from the muzzle, therefore the type of weapon in use was of little consequence.

This year in Georgia, four persons have been killed in hunting accidents. Two of them were squirrel hunting accidents which one hunter stumbled and shot another. Two of them were deer hunting accidents when one hunter shot a friend sitting beside him on the stand with a shotgun, and the other accident occurred when a hunter shot himself as he climbed out of a tree.

Out of the five fatal accidents last year four of them involved deer hunting. One occurred when a hunter stumbled and shot himself through the head with his own shotgun. A teenage boy shot another hunter with a shotgun slug, mistaking him for a deer. A deer hunter shot another person with a shotgun while removing it from a car. The fourth accident involved a high-powered rifle, but it occurred when a hunter fell and shot another hunter, a case in which it made no difference whether he had a rifle or a shotgun.

At present, the existing regulations of the Game and Fish Commission prohibit the use of buckshot on State game management area hunts, both to prevent crippling loss of deer and for the safety of other hunters.

JANUARY, 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1. Mon.	8:54	8.0	9:12	6.6	2:36	3:18
2. Tues.	9:48	7.6	10:00	6.4	3:24	4:06
3. Wed.	10:36	7.3	10:48	6.3	4:12	4:54
4. Thurs.	11:24	6.8	11:42	6.2	5:00	5:36
5. Fri.			12:06	6.4	5:48	6:24
6. Sat.	12:30	6.1	12:54	6.1	6:42	7:12
7. Sun.	1:18	6.0	1:36	5.8	7:36	8:00
8. Mon.	2:06	6.0	2:24	5.5	8:30	8:48
9. Tues.	2:54	6.1	3:12	5.4	9:24	9:36
10. Wed.	3:48	6.2	4:06	5.3	10:18	10:24
11. Thurs.	4:42	6.4	5:00	5.3	11:06	11:12
12. Fri.	5:30	6.6	5:48	5.4	11:54	
13. Sat.	6:18	6.9	6:36	5.5	12:00	12:42
14. Sun.	7:00	7.1	7:18	5.7	12:42	1:24
15. Mon.	7:36	7.2	7:54	5.9	1:30	2:06
16. Tues.	8:18	7.3	8:36	6.1	2:12	2:48
17. Wed.	9:00	7.3	9:18	6.2	2:54	3:30
18. Thurs.	9:42	7.2	10:00	6.4	3:42	4:12
19. Fri.	10:24	7.1	10:48	6.5	4:24	4:48
20. Sat.	11:12	6.8	11:42	6.6	5:12	5:36
21. Sun.			12:06	6.6	6:06	6:30
22. Mon.	12:42	6.7	1:00	6.3	7:06	7:24
23. Tues.	1:42	6.7	2:00	6.0	8:18	8:30
24. Wed.	2:48	6.8	3:06	5.8	9:24	9:36
25. Thurs.	4:00	6.9	4:12	5.8	10:30	10:36
26. Fri.	5:12	7.1	5:24	5.9	11:30	11:36
27. Sat.	6:12	7.4	6:24	6.2		12:24
28. Sun.	7:06	7.6	7:18	6.4	12:36	1:24
29. Mon.	7:54	7.7	8:06	6.6	1:30	2:12
30. Tues.	8:42	7.6	8:54	6.6	2:18	3:00
31. Wed.	9:24	7.3	9:36	6.6	3:06	3:42

TIDE TABLE

JAN. - FEB. 1968

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).....	0	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
JAN.	7	15	22	29
FEB.	6	14	21	28

FEBRUARY, 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1. Thurs.	10:06	7.0	10:18	6.5	3:54	4:18
2. Fri.	10:42	6.6	11:00	6.4	4:36	5:00
3. Sat.	11:24	6.2	11:42	6.2	5:18	5:42
4. Sun.			12:00	5.9	6:00	6:18
5. Mon.	12:24	6.1	12:42	5.6	6:48	7:00
6. Tues.	1:12	6.0	1:24	5.3	7:36	8:12
7. Wed.	2:00	6.0	2:18	5.1	8:36	8:48
8. Thurs.	2:54	6.0	3:12	5.0	9:36	9:48
9. Fri.	3:54	6.1	4:18	5.0	10:30	10:36
10. Sat.	4:54	6.3	5:18	5.2	11:24	11:30
11. Sun.	5:48	6.7	6:06	5.6		12:24
12. Mon.	6:36	7.0	6:54	6.0	12:18	12:48
13. Tues.	7:18	7.3	7:36	6.4	1:06	1:24
14. Wed.	8:00	7.4	8:18	6.7	1:54	2:06
15. Thurs.	8:36	7.5	9:00	7.0	2:36	3:06
16. Fri.	9:18	7.4	9:42	7.1	3:24	3:42
17. Sat.	10:06	7.2	10:30	7.2	4:12	4:24
18. Sun.	10:48	6.9	11:24	7.1	5:00	5:24
19. Mon.	11:42	6.5			5:48	6:00
20. Tues.	12:18	7.0	12:36	6.1	6:48	7:00
21. Wed.	1:24	6.8	1:42	5.7	8:00	8:18
22. Thurs.	2:36	6.6	2:48	5.5	9:12	9:30
23. Fri.	3:54	6.6	4:06	5.6	10:18	10:48
24. Sat.	5:06	6.8	5:18	5.8	11:18	11:30
25. Sun.	6:06	7.1	6:18	6.2		12:24
26. Mon.	7:00	7.3	7:12	6.6	12:24	1:06
27. Tues.	7:42	7.4	7:54	6.9	1:18	1:30
28. Wed.	8:24	7.3	8:30	7.0	2:06	2:18
29. Thurs.	9:00	7.1	9:06	7.0	2:48	3:00

Sportsman's Calendar

SEASONS NOW OPEN

BEAR

Season—Nov. 4, 1967 through Jan. 2, 1968. See federal regulations available at U. S. Post Office.
Bag Limit—(1) one per person per season.

DOVES

Season—Dec. 6, 1967 through Jan. 15, 1968. See federal regulations available at U. S. Post Office.
Bag Limit—12 daily, possession limit 24. See federal regulations, especially for baiting restrictions. Migratory bird stamp not required.

DUCKS

Season—Nov. 28, 1967 through Jan. 6, 1968.
Hunting Hours: One half hour before sunrise until sunset. Consult the nearest office of the U. S. Weather Bureau for the exact time.
Bag Limit—Four (4) per day, including no more than two wood ducks, one canvasback, and two black ducks. In addition, hunters may take five mergansers daily, including no more than four American Cooters, one red-breasted merganser and one hooded merganser. In Chatham, Bryan, Glynn, Liberty, McIntosh, and Camden counties, east of the Intracoastal Waterway, hunters may take two additional bonus canvasback ducks per day.
Possession Limit—Eight ducks, to include no more than four wood ducks, one canvasback, and four black ducks. Possession limit for mergansers is 10, to include no more than two hooded mergansers.

GEESE AND BRANT

Season—Nov. 4, 1967 through Jan. 12, 1968, except in Liberty and McIntosh counties, where the season is closed.
Hunting Hours—One half hour before sunrise to sunset.
Bag Limit—(Geese) Two per day. Possession limit is four. There is no open season on snow geese.
Bag Limit—(Brant) Six per day. Possession limit is six.

SNIPE, WILSON'S

Season—Nov. 27 through Jan. 15, 1968.
Bag Limit—8 Daily, possession limit 16.

WOODCOCK

Season—Nov. 28 through Jan. 31, 1968.
Bag Limit—5 Daily, possession limit 10.

GAME MANAGEMENT AREAS CLOSING THIS MONTH

Small Game (quail, rabbit, squirrel)—Jan. 1-6, 1968—Suwanoochee. No permit required.
Small Game (grouse, rabbit, squirrel)—Jan. 5, 6, 12, 13, 19, 20, 26, 27, 1968—Blue Ridge. \$1.00 permit required per day.
Small Game (quail, rabbit, squirrel)—Jan. 8-13, 1968—Bullard Creek. \$1.00 permit required per day.
Small Game (quail, rabbit, squirrel)—Jan. 8-20, 1968—Waycross State Forest. No permit required.
Small Game (quail, rabbit, squirrel)—Jan. 22-27, 1968—Arabia Bay. No permit required.
Small game in season—Nov. 29, 1967-Jan. 31, 1968, Wednesdays and Saturdays only—Piedmont Experiment Station, Oaky Woods (Squirrel, rabbits, quail, and doves in season) \$1 permit per day required.

SEASONS NOW OPEN

GROUSE, RUFFED

Season—Oct. 14, 1967, through Feb. 29, 1968.
Bag Limit—3 Daily, possession limit 6.

OPOSSUM

Season—Oct. 14, 1967 through Feb. 29, 1968. Exception: Coweta County opens Sept. 30, 1967 through Jan. 20, 1968.
No Bag Limit.

QUAIL, BOBWHITE

Season—Nov. 18, 1967 through Feb. 29, 1968.
Bag Limit—12 Daily, possession limit 36.

RABBITS

Season—Nov. 18, 1967 through Feb. 29, 1968.
N. Ga. Bag Limit—5 Daily.
S. Ga. Bag Limit—10 Daily.

North Georgia includes the counties of Harris, Talbot, Upson, Monroe, Jones, Baldwin, Hancock, Warren, McDuffie, Columbia, and all counties north of those listed. All counties south of those listed above on the fall line are considered part of South Georgia.

RACCOON

N. Ga. Season—Oct. 14, 1967 through Feb. 29, 1968, in Floyd, Bartow, Cherokee, Forsyth, Hall, Banks, Franklin, and Hart counties and all counties north of these counties.
N. Ga. Bag Limit—One (1) per night per person.
S. Ga. Season—No closed season.
S. Ga.—No Bag Limit.

SQUIRREL

Season—Oct. 14, 1967 through Feb. 29, 1968.
Bag Limit—10 Daily.

TRAPPING SEASON

Season—Nov. 18, 1967 through Feb. 29, 1968.

Mink, Muskrat, Opossum, Otter, and Skunk. Raccoon—closed in Floyd, Bartow, Cherokee, Forsyth, Hall, Banks, Franklin, Hart and all counties north of these counties. No closed season south of the listed counties.

No closed season on beaver, bobcat, and fox.

No bag limit in any section of the state.

No other wildlife except those specified may be trapped at any time.

WILD TURKEY—Fall Season

Southwest Ga. Season—Nov. 20, 1967 through Feb. 29, 1968, in the counties of Baker, Calhoun, Decatur, Dougherty, Early, Grady, Miller, Mitchell, Seminole, and Thomas.

Bag Limit—Two (2) per season.

STATE MANAGEMENT HUNTS NOW OPEN

All small game in season—Altamaha (Except Butler Island, which is open only for waterfowl on Tuesdays and Saturdays during regular duck season). Lake Seminole, Whitesburg, Allatoona, Brunswick Pulp and Paper Area. No permits required for small game hunting.

MEETINGS THIS MONTH

Georgia Conservancy Conservation Conference, University of Georgia Center for Continuing Education, Athens, Ga. Jan. 19-20, 1968. All conservationists are invited to attend.

Just One More Month

If you were one of the 15,000 subscribers to Georgia Game and Fish who subscribed last year by February 1, 1967, your subscription may be about to expire. Check the date on your mailing label to see what month you will receive your last issue if you do not renew in time. To make sure that you don't miss a single issue of **Game and Fish**, send in your renewal subscription now in the postage-paid envelope attached to this issue. A minimum of 30 days notice is required to renew your subscription. Beat the rush! And this time, why not subscribe for three years and save half a dollar!

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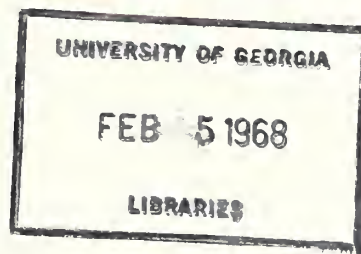
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GAME & FISH





GEORGIA

GAME & FISH

February 1968 Volume III Number 2



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation.

Contents

Viewpoint.....	WSB Television	1
Blue Velvet Quail Hunt.....	Jim Tyler	2
Wired for Sound.....	Dean Wohlgemuth	5
The Making of a Man.....	J. Hall	7
The Big Meetin'.....	J. Hall	10
The Boat Show's Back.....	Dan Keever	14
The Outdoor World.....	Staff	16
Sportsmen Speak.....	Readers	15
Sportsmen's Calendar.....		17

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Open Squirrel-Deer Seasons Together?

One of the more discouraging things about wildlife conservation is watching the well-intentioned but misguided efforts of some sportsmen to change hunting regulations and seasons to fit their own ideas of game management, without looking at the entire picture.

An example of this is the reoccurring argument that the squirrel season in Georgia should be opened only at the same time that the deer season opens, primarily to prevent game law violators from shooting deer with a .22 rifle or number four shot, or tempting an otherwise honest citizen into breaking the law.

Such arguments sound good on the surface, but with closer examination they fail to stand up as well.

For instance, this year's state-wide squirrel season for Georgia's number one hunting species opened on October 15, while the deer season in most sections for the fourth most popular species did not open until October 30. Only in southeast Georgia did the opening of the two seasons coincide.

Under the most often mentioned proposal to stop illegal deer killing, the squirrel season in 1967 would have not been opened until October 30, when the deer season opened. The only other alternative to leaving the dates as they are would have been to move up the dates of the deer season in north, middle and southwest Georgia to October 15 to match the squirrel season dates. Both proposals leave much to be desired.

Georgia's chief of game management, Hubert Handy, feels that such proposals are similar to ill-advised proposals to restrict the purchase and ownership of firearms. As Hubert puts it, "A man who's going to shoot a deer will get him one anyway when he wants it. Opening the seasons at the same time won't prevent him from killing a deer out of season."

"It's equally ineffective to pass a law making it illegal to buy a gun to commit a crime or to kill someone. If a criminal wants a gun, he goes out and gets himself one, whether he buys it or steals it. A man who'll violate the game laws is the same thing—a criminal, and he must be treated like one, after he commits the crime. It can't be done before."

"I found out from my years of law enforcement experience that out of more than 130,000 deer hunters, only a handful of them give us enough trouble that a wildlife ranger would remember them for doing something," Handy says. "It's the same way with any given number of members of society—some of them will violate the game laws, boating safety laws, traffic laws, or any other law. It's the same small group of people that you deal with in every phase of life that cause the trouble."

"We've talked about this problem long and hard many times. Why penalize the 145,000 squirrel hunters in Georgia because of a handful of criminals who will shoot deer out of season with an illegal weapon any time they feel like it anyway; especially when opening the seasons on the same date won't stop them from violating the law when they please?"

Squirrels, Handy points out, will sustain a heavy harvest because they reproduce in litters of four to six young, often bearing two litters or more a year when mast food conditions are good. The grey squirrel is migratory, and moves into areas with a good food supply. For these reasons, squirrels are plentiful. Although 1,620,000 squirrels are killed by hunters each year, many more could easily be taken without harming the tremendous number of brood animals left each year to reproduce. In fact, many squirrels will perish anyway before the end of the hunting season if food conditions are poor, or from simple old age.

The early squirrel season gives deer hunters a good excuse to go to the woods looking for deer signs to locate a good stand for the deer season, while sharpening up their patience and marksmanship on the elusive bushy-tails. Few law-abiding sportsmen would shoot a deer at such a time.

It's interesting to note that in Pennsylvania, one of the leading deer hunting states, almost all hunting seasons, including deer and squirrel, open on different dates. The squirrel season opened there this season on October 14, followed on November 27 by the gun deer season.

And even if the squirrel season did open with the deer season, it

Continued on page 18

ON THE COVER: Lake Seminole, the site of Roy Scott's fabulous Lake Seminole Lunker Bass Tournament this month, Feb. 22-24, is still justifiably famous for its big bass, like these three to six pounders landed by Rock Stone and Charlie Lee of East Point, using purple flip tail lures. February is always a good month for big bass at Seminole while the rest of Georgia's big lakes are still locked in the grip of winter's icy winds. For more details on the tournament, turn to page 15.

ON THE BACK COVER: February marks the end of the hunting season for most of the popular small game animals, including quail, rabbits, and squirrels. Many Georgians don't realize it, but more Georgia hunters go after bushytails than any other big or small game species. Cover photos by Jim Morrison.

PHOTO CREDITS: Ted Borg 2,3,4,6 b., 9, 10,11,12,13; J. Hall 7 c., Dan Keever 14; Jim Morrison 16.

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EDITORIAL OPINION

November 7, 1967

VIEWPOINT—an official expression of opinion by the management of WSB Television

Did you ever stop to think what an ideal job Georgia's men in green have? They are outdoors men and get paid for it.

In the summer game and fish rangers can be on the water in powerful boats. But there is no water skiing, little time for fishing and no opportunity to take their families to the lakes. But they are on the water even though it's hot from sun up till after sun down.

Then in deer season they can be in the woods. Again, from dawn to dusk but the days are not as long. And they have transportation—often it's a four-wheel drive vehicle in order that they can get through the snow, over rugged trails to bring out an injured hunter or a lost hiker. There are laws to be enforced, arrests to be made, safe rules to be observed, aid to be given, fish and wildlife to be preserved.

Sounds like an ideal job for a person who likes the outdoors and he gets paid for it too. Of course, it's not as much as a State Patrolman, and Atlanta policeman or fireman; who are certainly not overpaid. For that matter, it's almost a hundred dollars a month under these other uniformed civil servants. In fact, our State Game and Fish Rangers are paid less than those in North Carolina, Alabama, Florida and Tennessee. We're \$64 a month under the national average. And out there in the woods there is no such thing as a 40 hour week. Time and a half is an unknown phrase to the Game and Fish Ranger.

It's hardly a job to be envied but rather one to be thoughtfully considered by the Georgia General Assembly. Any legislator who has a constituency with an interest in the outdoors should be concerned about the men who are protecting it.



*BILL
DANIELS*



Blue Velvet Quail Hunt

By Jim Tyler



■ Just south of Albany, Ga., the Nilo Plantation can be found. Today it sprawls beneath a warm December sun. There is to be a quail hunt on the plantation and the preparation is under way. From the big house we stand and can see an elaborate mule drawn wagon loaded with caged dogs, traveling smoothly down a dirt road toward a small stone building where the hunt will start. No sooner does the dust from the wagon settle, and we see two horses with mounted men trot on down the same road. The men are the dog handlers. And there goes two more men on horses, each leading a riderless horse.

The white color of the house throws off brilliantly the sun rays, making it appear even more stately, if such a thing is possible. For the big house is, in a word, elegant. It floats in a green sea of manicured grass. Scattered around the house grounds smaller houses, buildings, and sheds sit under the quiet shade of towering oaks. A tractor chugs along a road by the horse pasture in the distance. In front of the big house there is an oval lake. Ducks and geese can

be heard. The whole setup is like a small community. An extremely peaceful, postcard-perfect setting . . .

The dog wagon, horses, horse and dog handlers have gathered at the starting point. The hunters arrive in an auto.

John Olin, Nilo's owner, and his neighbor plantation owner, and Game and Fish Commissioner, Richard Tift, arrive and decide to start the hunt from horses. They mount.

In the wagon there are four braces of pointers in duo cages and up front with the wagon driver two quality labrador retrievers sit. Two pointers are taken out, unleashed. Away they go. And the quail hunt, plantation style, is under way.

The dogs range out front of the mounted trainers. Then come Mr. Olin and Mr. Tift. The dog wagon brings up the rear.

Soon, one of the dogs is on point. A beautiful point. The hunters dismount, get shotguns from the saddle holsters, and decide how to approach the birds, for the point is aimed toward a small thicket. They spread out. The handlers come in now,

swatting the brush with dog leashes. Broadsides erupt. Three shots echo around the countryside. Two brief flurries of quail feathers settle to earth. And then the retrievers are called from the wagon. The golden-hued bodies flash through the grass. It doesn't take them long. They turn to the wagon gently mouthing the retrieved quail. Showing their extreme training, they jump onto the wagon beside the driver and deliver the quail to him.

The procession moves on. The other dogs go on point. The dogs are marvelous even though the weather has been cold, dry and hot for more than a month. The dogs have difficulty smelling the birds. Mr. Olin and Mr. Tift dismount, move in. Another covey booms up . . .

Another covey. And another. And another.

Ever so often fresh braces of dogs are taken from the wagon. Without a doubt this is surely the dog wagon of all dog wagons. The front of the wagon has a seat for the driver and retrievers. Behind the driver is a comfy auto type seat where

A plantation quail hunt is surely the Miss America winner of quail hunts. It has the perfect proportions: beauty, confidence, perfection, and a smashing success story.



Out for a day's quail shooting, plantation style, are John Olin, left, and Game and Fish Commissioner Richard Tift of Albany.

John Olin points his double barrel at a quail. The hunt was on Nilo Plantation near Albany, owned by Olin Industries, makers of Winchester firearms.



Two hunters can ride. Further back are four dog cages. The wagon is hand made of mahogany, trimmed in polished brass. It travels over corn fields, grass fields, and between pine trees jostling gently on automobile tires and spring cushioning. Two fine, husky mules supply a horsepower.

Coveys later, Mr. Olin and Mr. Tift decide to ride the wagon. Their horses are led by the men who handle the horses. Then the hunters dismount to shoot. Seated in the wagon and following behind the procession of horses and ranging dogs, the two gentlemen appear as they are, country estate gentlemen.

Seen from a front view, with the whole procession coming toward you, it seems like a scene from a movie. The mules loom up and look like the two lead horses of a famous team of Anheuser-Busch horses tearing down on you. The beauty, the color, the visual impact—all together this plantation hunt has the dimensions of a cinematic production.

There have been many birds in each

covey this afternoon. And with the dogs having trouble with dryness of earth, plants, and quail odor, the quail frequently run ahead. But even at this, very few minutes pass before a dog freezes and shotguns roar. The action is fast and continuous.

When the shooting stops a pleasant garble of noise fills your ears. "Hey Dugal. Come here Bill. Hey-hey-hey-hey. Here Bill, here Bill. Dugal! Whoa Bill. Hey, hey, hey, come on in here!" The scene: finding a downed quail.

Admirably, and showing extreme sportsmanship, every quail shot down, with one or two exceptions, is retrieved. The retrievers were kept looking for a downed bird until it was obvious the bird was not to be found.

It seemed odd that each time the wagon driver signaled the mules to get going again, why, there was no chattering starting noise, no sputtering of exhaust, no revving engine noises—just a smooth start, the wagon creaking mildly. While the wagon follows the dog handlers and moving dogs, the hunters talk as all hunters

talk. They talk about and point out likely spots where a covey would probably be found, discuss the dogs' performances, compare the sizes of coveys.

The hunt lasts just shy of three hours. Nineteen coveys were flushed. Figure it out and that means a covey just about every ten minutes. There is a tremendous story of management behind land that will produce quail hunting of this high quality. Only a few individuals or large corporations can afford to operate a plantation like Nilo to produce the world's finest quail hunting. Fortunately indeed are the few guest hunters who are invited to sample the best quail shooting that they will ever see in their lifetime.

It seems a shame that something so good has to end. But it does. And when day is done and the hunt over, you almost expect the dog wagon to turn into a pumpkin and the mules and dogs to scurry away as field mice. But the magic wand is nowhere present. There will be many more such plantation quail hunts styled with elegance and perfection.



You've heard the old child's story about mice who wanted to put a bell on the cat so they'd always know when it approached?

Well, there's a new slant on the old story now. Georgia's Game and Fish Commission isn't belling the cat, but it has a project underway now, of putting radio transmitters on deer.

Of course, the deer isn't being belled to protect us from it. On the other hand, the transmitter isn't being used to help locate the deer for hunting purposes, either.

But in a way, the information gathered from the study will most likely benefit hunters in several ways.

Dick Whittington, Game Management Chief for the Middle Georgia Region, out of the Fort Valley office, headed up the program and got it started the first of May. The field work is now in the hands of Dan Marshall, game biologist, and Joe Smallwood, area manager of the Clark Hill Game Management Area.

That's where the study is going on, at Clark Hill. "This is the first time such a study has been conducted in Georgia," Dan said. "Other states have done similar work, much of it on small game and some on deer. And of course, there will be parallels in what we learn and what has already been learned in other states. But, deer will act differently here from what they do in other states. They may even act quite differently from one part of Georgia to another. So we may begin similar studies on other areas."

To begin with, huge deer traps that look like overgrown rabbit boxes are baited and set. When a deer is captured, it is given a tranquilizer if necessary, so that a tiny transmitter, about two inches square and an inch thick, can be attached to its neck. It is attached by means of a cloth band around the neck. The transmitter is complete with an antenna of about 14 inches, and of course its own source of power, small mercury batteries.

After the deer is released, its movements can be followed through the signal emitted from the transmitter. The signal can be heard only through a radio receiver set to the correct frequency. When several deer are "radio-active," each transmitter is set to a different frequency, so deer can be distinguished from each other.

Marshall's "tracking truck" will raise its eyebrows when you first see it. It looks like the small pickup is equipped with a television, because of the large many-jointed antenna projecting through the roof of the cab. "Yes, we get a few wise cracks from people when they see us with our antenna, on the few occasions when we've had to take the truck off the area to town for repairs or something," said Smallwood. "Just tell them, when they ask if we have television, 'yes, we've gone to color now!'" laughed Joe.

Actually, the antenna is connected to the radio receiver in the truck. The antenna is highly directional . . . that is, it has to be

pointed directly at the source of the signal (the deer, in other words) to produce the loudest sound on the receiver.

"That way," Dan explained, "we know exactly which direction from us the deer is located. Of course, that alone won't tell us just where the deer is or how much it has moved. So we have a protractor on the antenna so we can measure the degrees of direction. Soundings are taken from pre-arranged points of the area. Then on a map of the area, we draw a line from the point where the sounding was made in the direction from which the deer's signal came.

Then, we move to the next pre-set location, and pick up another signal and draw another line," Dan said. "After two or three, maybe four such soundings, we can look at the map and see where the lines cross. That's where our pet deer is," he grinned.

And the deer do get to be almost like pets to Dan. To him, they have numbers rather than names, but he keeps in close contact with each deer for a month or so, until the batteries grow too weak to send a signal, or until the radio quits functioning for some other reason.

On several occasions, he's been able to trap the same deer three or four times. In one instance, a deer wearing a radio that quit signaling was re-trapped, the radio repaired and within a few weeks the same deer was again captured and the radio returned to his neck.

A few of the radios were returned to Dan after they quit working, when the deer were killed during a managed hunt.

All right, so Game and Fish can keep track of a deer. So what? What does that mean to the sportsman? HE can't use that method to locate a deer to shoot.

The main purpose of the whole study is to find out how much a deer will move around, how far he travels. "His range varies considerably according to the time of year," Dan pointed out.

For example, a doe with a young fawn covered an area of more than about 40 acres during the whole time the radio transmitter was working. This was in the spring. However, the same doe was recaptured that fall and with the fawn older and more able to move about, the doe ranged over some 130 to 140 acres. The fawn was also "belled," and was always found to be very near its mother.

A buck, on the other hand, will likely range over twice as much area as will a doe. Dan pointed out. "We had one buck radioed for a month, during the rut. He ranged over 340 acres or more."

Marshall has had three deer signaling at a time, and has enough channels on his receiver to handle up to six deer if he could have that many deer signaling.

A buck was caught twice, a doe three times, and one deer was caught six or seven times. Why would the same deer allow itself to be caught so many times? Is it just ignorant? "No," grinned Dan,

WIRED FOR SOUND

By Dean Wohlgemuth

Television? Black and white or color? No, this is a directional antenna mounted on a Game and Fish truck, for use in tracking signals transmitted from tiny radios installed on deer.



By finding which direction the signal comes from, Game and Fish biologist Dan Marshall can pin point the deer's location. Using the protractor scale on the roof of the truck, he can mark on a map which direction the deer is from him. By moving to other pre-determined points, intersecting lines on the map show the animal's location.



Trying to find the deer in the woods would be worse than looking for a needle in a haystack without the transmitter and receiver. It is still hard enough to find him using this portable receiver. Marshall sometimes can get close enough to get a look at a deer by following it through its domain toward the strongest signal. Antennas on the receivers are highly directional . . . that is, the signal is strongest when the antenna is pointed directly at the deer wearing the transmitter.



This tiny unit doesn't put out much noise — just enough that it can be picked up and the deer's movements recorded. Note the heavy cloth band around the deer's neck to hold the transmitter, and the short antenna projecting from the unit. The little radio doesn't seem to bother deer in the least when they're released. Nor does it prevent other deer from fraternizing with them.



Free at last! The few moments it takes to attach the radio may seem long to a deer, but it's soon over and he's off to the woods. It's painless, and deer don't seem to mind enough to stay out of the traps. Some deer are captured several times.

"they just like the corn we bait the trap with. And they learn after the first time that they won't be harmed."

One of the more important things learned by the radio tracking method is that the more they are hunted, the less deer move, Dan pointed out. "One deer didn't move 200 feet all day during our hunt," he said.

"Movement decreases every day during the hunt. That is, deer will move more the first day than they will the second day of the hunt. Then the third day, they'll move even less, and so on."

This probably accounts for, more than any other factor, why more deer are harvested during the opening day of any hunt.

But will it help the hunter to give up his tree stand late in the season, in hopes of getting a shot by stalking? "No, he'd have to depend on a lot of luck," Dan said. "We have a small receiver which we can carry with us through the woods, with a small antenna we can carry by hand. With it, we can aim it toward the deer, and try to sneak up on it. It's rare that we can get close enough to see it, even though we know pretty well where the deer is."

Studies will continue through next June. After that, Dan doesn't know whether the commission will continue the project. If it is continued, he speculated it could possibly be moved to another area.

Dan's work with radio tracking goes back to his school days. While working on his master's degree at University of Georgia, he did research in the field with two bobcats.

His work with wildlife goes back a little farther. He was a wildlife ranger for Game and Fish for one and a half years before going to Piedmont College to receive a BS in wildlife biology. Then he worked for a year and a half with the Southeastern Cooperative Wildlife Disease Study Center at University of Georgia. A native of Columbia County, Ga., he now makes his home in the same county, on the shores of Clark Hill Reservoir.

In addition to just finding out how deer roam, the study will give the Commission insight on how much stress is on deer during a hunt. It can be learned just how many hunters should be allowed to hunt in an area.

This way, the hunter gets the benefit. Deer hunting can be improved and better managed, so that the hunter's chances of putting venison in his freezer are better.



This is what is known as "a stiff upper lip." For a soaking wet little boy and his soggy father, it required considerable determination to stay in the field that day. John had all it took.

The making of a man

by J. Hall

"You know, we haven't done anything on squirrel hunting,"

Mr. Morrison, editor of *Game and Fish*, looked at me pointedly. What else could I agree.

"You ever do much squirrel hunting?"

"Vell," I considered, "when I was a youngster, I used to think it was the best thing since peanut butter."

"What do you think now?"

"I don't eat as much peanut butter as I used to. Gets stuck in my teeth."

"Develop a taste for it."

After I had graciously volunteered to produce a story about squirrel hunting, I considered how I was going to go about it. Considering size, weight and general intelligence, I figured I should be at least an adult match for a squirrel, provided he wasn't enjoying the best of health. So it didn't sound like such a large order. It was.

My son and I embarked on the big day. Now a nautical term might seem the wrong word to describe setting out on a squirrel hunting expedition, but in this case, it isn't. The only thing we lacked was the boat, and that seemed to be the main thing we needed. I've never seen such a frog-strangling rain! Even the ducks looked miserable. But the mails are delivered, magazines go to press, and deadlines must be met. Today was the day, so off we went.

After a full, thoroughly miserable day, all we managed to bag were a couple of large, economy, 105 millimeter-sized colds; the car broke down; the rifles rusted; the thermos of coffee broke; and one small boy and his papa sloshed homeward discouraged, very discomforted and glum, leaving untold thousands of invisible squirrels snickering quietly to themselves in their warm, safe nests.

In the car as we drove home, the two of us sat, saying nothing, enmeshed in our own misery, and occasionally punctuating the silence with an explosive sneeze or woebegone snuffle. The heater roared full blast, and as we listened to the swishing windshield wipers and the steady *plot! plot!* of water dripping from our sodden clothes onto the floorboard, I wondered what I was going to do for a story, how we were going to find time to go again, how in the world I could manage to salvage something from the day. You know, the real downhearted bit.

Then I glanced over at Johnny and caught him looking at me. I managed a feeble grin. The corners of his mouth quivered, and then he was grinning too. Suddenly, the whole absurdity of the thing struck us, and it *was* hilarious. Finally, I had to pull off the side of the road while we poked fun at each other's reddening nose, plastered down hair, waterlogged appearance, and practically suffocated with laughter. And then I realized I *had* a story about squirrel hunting. Heck, I had a whale of a story! But I'm getting ahead of myself. Suppose I go back and start at the beginning.

It seemed to me that no story about squirrel hunting could be complete without a small boy in it. Traditionally, squirrel hunting is associated with sharp-eyed, tousel headed boys with .22's, and if this one was to be authentic, it could be no different. As luck would have it, I just happened to have in stock one small, sharp-eyed, tousel headed boy with a .22 he was about to hemorrhage to get to use.

We had just survived his ninth birthday, and daddy's present was a .22 rifle. You know the kind, bolt action, single shot, manual cocking Winchester that used to sell for \$10.00 when we were kids. This one wasn't even new, but it looked like a dream come true to Johnny. And so far, he hadn't even had a chance to fire it.

We made our preparations grandly . . . this squirrel hunting trip might have been a big game safari to Africa, but after all, nothing is quite so important as a little boy's first hunting trip. First came the question of the weapon. The rifle stock was too long for him and had to be cut down. We measured it by laying it on his forearm, first finger crooked in a comfortable trigger position, and then I sawed off a couple of inches from the butt. I curved the heel a little more than it was originally, in order to help him learn the correct positioning on his shoulder.

We had bullets to buy, and this was the opportunity not only to teach him about different cartridges for various purposes, but also to impress upon him the significance and potential danger of a bullet . . . even as small a bullet as a .22. We selected hollow point long rifle cartridges, and together we read the warning printed on every box. "Range one mile. Be careful."

We looked forward to our target shooting day with great anticipation. He, because he was going to get to shoot his gun for the first time, and I, because I wanted to start my boy off *right* with his first weapon. Finally the big day came, and with it came the rain. We both sat disconsolate, staring out at the streaming downpour. He tried very hard not to be impatient, but it is hard for a small boy not to fidget. He cradled his rifle across his knees and once in a while, aimed it at an imaginary squirrel peeping around a tree limb that apparently grew from the ceiling.

Finally, the rain slowed to a drizzle, and we decided to give it a try. I drove several miles out of town to a high clay bank that's locally used for target practice. The first thing I did was to show him the power of the little rifle he was about to use. He had a scratch on his arm.

"Johnny, how'd you get the scratch?"

"I ran into a briar."

"Skin is pretty tender then, isn't it? It doesn't take too much to scratch through skin and make us bleed, does it?"

"No, I guess not."

"Skin isn't really as hard as a piece of wood, is it?"

Well, that was fairly elementary, and with something of a pitying look at his senile old father, he condescendingly agreed. Maybe he'd heard somewhere it was better to humor people in that condition. But I was feeling pretty smug. First the long, slow curve, then the fast break. In front of us was a 2" x 4" plank, planted upright in the ground. I snapped a shot at it.

"Now go take a look at the plank."

He immediately saw that the bullet had gone all the way through, tearing away a good sized splinter where it came out. Then his expression grew thoughtful, and I knew that the point had gone home.

"Daddy, if that had been a person standing there, the bullet would probably have gone all the way through him, wouldn't it?"

"Yes, son, it probably would have."

So we learned that even a .22 is a weapon and not a toy. Next came instruction on how to hold and carry the rifle, to control the direction of the muzzle, and finally, the big moment, how to aim and fire. We had done some preliminary aiming and "dry firing," so we moved fairly rapidly along. I impressed on him the importance of anticipating where his bullet might strike, since the one-mile range could conceivably carry the projectile much further than he intended, especially in the case of a miss. We burned up several boxes of shells, much to his delight, and he began to show real promise of marksmanship.

I had brought along my deer rifle, a 7mm Mauser, and fired a few rounds. He indicated an uncertain interest, and I encouraged him to fire it, if only for comparison. He consented, with some trepidation, and afterward, ruefully rubbing his shoulder, he consigned that rifle to me, and I believe,

under his breath at least, me to a warmer climate.

That night we turned in early, praying for a clear tomorrow, and set the alarm for 3:30. The first thing I did on awakening was to cast a worried eye at the weather. Glory be! The rain had stopped! I got dressed, then rolled Johnny out and shoveled him into his clothes. He sat like a moulting pigeon, his hands dangling between his knees, as I put on water for coffee. A few sips was all he could manage, and then we started out.

Before we had driven a mile the rain began, and we proceeded in a downpour. He promptly curled up and went to sleep, leaving me to wonder if we shouldn't abandon the whole thing. But it was too early to be discouraged. In fact, it was too darned early even to think straight, so hopefully, I kept going. Then a sudden clattering under the hood and the discharging ampmeter told me we had thrown a fan belt. This was no time or weather to be stranded, so alternating between muttering evilly to myself and dispatching prayerful appeals to Allah, I nursed the car along as the lights grew dimmer and dimmer. Finally I came to the shelter of an unopened service station, lashed up a jury rig fan belt, and at last we set out again, later and more discouraged, but still undaunted. The rain had slacked up!

By the time we reached the farm of our friend, Elbert Jackson, near Juliette, the rain had almost stopped. We checked in to let him know we were there and where we would be hunting, then headed for the woods. Later, as we walked slowly through the wet grass, I pointed out to Johnny the abundant signs of deer all about us. The field was criss-crossed with trails. There was a flattened spot that looked as if several deer had bedded, and here was "hooking," a sizeable sapling bruised where a buck had scraped his antlers. The several scars, some brown, others green and raw, showed that the buck had visited this tree several times, and very recently too, possibly just minutes ahead of us. The size of the tree indicated that he was a fair sized deer, for many hunters believe that the bigger the buck, the larger the tree he will choose for hooking. Johnny was very interested in all of this, and stored it away to be used against me at some future date.

Finally, we came to a likely stand of hardwoods. I pointed out to Johnny the numerous squirrel nests that could be seen among the bare branches of the trees, and was looking around for a couple of good stands where we could wait for the varmints to begin stirring, when somebody turned on the faucet.

Before we could get back to the car, we were both soaking wet. I started the engine and turned on the heater. We wiped off our rifles and sat there, steaming. Before long, the windows were all fogged up and the car slowly filled with the odor of soggy boots and old, wet dogs. In unison, Johnny

and I opened our windows a couple of inches and sat back to plan the strategy of our next attack.

When the rain slackened again, we were both gasping for air and practically bolted from the car. We made our way slowly through the dense grass and tall wet weeds. Before we had gone fifty feet, I was again soaked clear up to my chin, and Johnny about a foot and a half shorter than I am. He plodded gamely on, though. I could hear the water squishing in his shoes, and soon we were both breathing hard from the exertion of pushing through the dense wet growth, our breath steaming gustily in the cold air. Although he was so busy he never noticed, I kept glancing back to see how he was making out. I was doing the best I could at breaking trail for him and picking the easiest route I could find, but his going was still mighty rough. Yet he never complained, never asked me to slow up or stop for a rest.

Finally we were into the woods again. I decided that since the ground was so wet, we might be a little more comfortable sitting up in a tree. With a little quiet scrambling, I hoisted Johnny up into the fork of a large oak and got him settled comfortably as possible, his back resting against a branch as big around as I am, turned and started away, then a thought occurred to me and I came back to look up at him.

"Johnny," I whispered, "don't shoot anything except a squirrel. If a deer comes through, *don't shoot at him!*"

He hesitated a moment, apparently considering the image of a nine ton buck with antlers like the prop on a B-17, and finally asked in a slightly trembling voice, "Daddy, what if he butts the tree?"

Choking, I managed to reassure him that it would only result in a headache for the deer, and then it was time for me to climb over and get up in my own stand. In a few moments, I was standing on a good sized limb; we had made very little noise; the rain had slowed to only a slightly annoying drizzle, and it looked as if we were going to get in some squirrel hunting action. Things were finally looking up! As I then I fell out of the tree.

I had chosen my stand in a leaning tree that had a likely looking crotch about twelve feet from the ground. There was heavy growth of moss on the trunk (don't ask me if it was on the north side), but I managed to shinny up to the first big limb. After I got settled, I began to realize I was cold; my feet were, and the more I thought about them, the colder they got. Finally I decided it might help if I wriggled my toes inside my boot. Very gingerly I experimented. I shouldn't have. When I shifted my weight, my boot slipped on the soggy moss, and I lost my balance. I flailed wildly with my arms, looking for a soft spot on the bark to sink my teeth in, when the rifle squirted out of my hand like an overripe banana. I made a grab for it. I should

ve done that either. I came crashing
own the tree, leaving claw marks the en-
e length of the trunk, and landed flat
my back beneath it. I didn't even have
e strength to move, just lay there watch-
g helplessly as the rifle hung perilously
r a moment on a small branch, then came
adding down on top of me.

Well, so much for that stand. If the clat-
ing and crashing hadn't done it, then
groans must surely have alarmed every
irrel for three miles around . . . the
es who weren't out applauding the show.
lowly picked myself up off the ground,
eling as if I were hinged in a dozen new
ices, and slowly limped over to Johnny's
e. He was looking at me curiously.

"Daddy, you know you could have hurt
rself, jumping out of that tree."

"Well, I'm pretty tough, son. Let's go
d some breakfast. I don't believe there
e any squirrels here anyway."

So, making a long story shorter, that's
out the way it went for the rest of the
ay. We tried it a couple more times, in
ween intermittent cloudbursts, and
ever quite managed to make the grade. I
see one squirrel that I had a clear shot
but by then my hands were so cold and
aking so hard that I doubt if I came with-
three yards of him, and at last, it was I
t suggested we call it a day. Johnny
ed if he could fire his rifle to empty the
umber. He blasted away at the trunk of
ig oak tree; the only time that day he'd
l a chance to shoot on his first hunt.

On the way back to the car that last
e, he was so tired he was staggering.
d been up since 3:30 that morning. He'd
owed me around all over the woods,
ating his way through brush that would
e foundered a steer. He'd been soaking
all day, and was so cold his lips were
le. And he'd never complained.

ll the way home, I wondered if I'd ever
him to try again. A day such as this
ould have revolted even the most dedi-
ed hunter, and this was his first experi-
e. Even after we'd had our good laugh
er the whole thing, my thoughts kept
urning to that question. Now and then,
ganced at Johnny out of the corner of
eye, trying to read his expression and
dering what he was thinking as we rode
ng in silence.

I guess he must have been doing some
dering himself, for suddenly, he ap-
red to have made up his mind. His head
e up, and that little chin jutted out the
y I had seen it do so many times that
y and he asked,

"Daddy, do you think we could go again
rrow?"

Once again I had to pull the car off the
e of the road. But this time it was be-
a e I needed both hands to hug him to
fiercely, my heart so filled with pride
at it ached inside my chest. My throat
s otight that it hurt to whisper.

"I ot tomorrow, John, but soon, soon.
a soon." >



A boy's first gun is a wonderful, prideful thing, and to John, it was a dream come true. But over the years, that first flush of possession will change to a quiet pride in ability and accomplishment as he learns to respect his weapon, to use it safely and accurately, and comes to understand the deeper meanings of true sportsmanship. I'll always try to remember my obligation to set him a good example.

The elusive prey. This sassy varmint and his bushy tailed relatives are probably still laughing so hard they fall out of their nests, every time they recall our futile efforts to pounce on them.



THE BIG MEETIN'

Annual Convention—
Georgia Sportsmen's Federation

By Clyde Bryson
as described to J. Hall

■ Yessir, they was good fellership an' tall tales a'plenty at the big meetin' . . . in fact, I reckon it was jest about everythin' ya' might expect from an outdoorsmen's get-together. Course, I know you were there, but the folks that didn't go sure did miss somethin'.

Course it weren't all fun an' games, though, 'cause them fellers got down to some serious business, not only durin' them sessions when the Directors met, but durin' a whole Saturday of some of the most interestin' programs I ever heard, least in quite a spell. An' ya' know, in spite of the fact that we heard from some old experienced speakers that've had a lot of practice at gettin' up in front of audiences, I 'spect jest about ever'body'll agree that some of the finest talks we heard were made by those young 4-H fellers that were on the program . . . youngsters like Lindy Copelan, of Greensboro, who was picked to be Youth Conservationist of the year for his work in protectin' Georgia's white-tail deer. An' lemme tell ya', that boy is nobody's fool when it comes to deer. I mean he knows 'em inside an' out! Why, he had them old time deer hunters settin' back an' takin' notice, with the things he was tellin' 'em.

Then they had that Howard Zeller feller, tellin' us about water pollution, an' what a big problem it's becomin'. An' he's right, too, ya' got to hand 'im that. That very day, when we was goin' down to Macon, I crossed a bridge that had big signs on it, "NO SWIMMIN'. POLLUTED WATER." Things like that really get ya' to thinkin'.

Then they had a panel discussion by a whole bunch 'a experts an' high muckety-mucks, talkin' 'bout how we're gettin' so many people, an' the cities'er gettin' so big that it's crowdin' the animals right off the map! Course they used a bunch 'a big words an' jaw breakin' terms, but I reckon it all boiled down to the fact that if we don't start usin' some common sense, which a heap 'a folks don't, I reckon, one 'a these days we ain't gonna have no wildlife . . . or any other kinda life, for that matter.

Course it weren't all serious. I got a kick out'a that Dan Quillian feller tryin' to show you how to shoot a bow an' arrow. Humph! If the Indians couldn't shoot no better than me, we wouldn't never had to fight 'em. Heck, they'd 'a starved to death long before that!



Registration day. We all lined up to sign in and shell out. Around 300 sportsmen and outdoorsmen from all over Georgia checked in to attend the convention. There were plenty of Wildlife Rangers on hand to see that none of 'em got more than their share of anything.



These are the fellers that run the show . . . an' seem to do a pretty good job of it. On the left, gettin' his hand shook, is Billy Lane, Secretary-Treasurer of the Georgia Sportsmen's Federation. The feller in the middle that's gettin' on the good side of him is Jim Adams, President. Clyde Greenway, Executive Vice President, looks like he proves of the whole thing.



Just to look at him, you wouldn't think that little feller down on the ground is such a bad egg. But he shore has got that other'n treed! Now it looks like he's tryin' to shake him down! Actually, that's Jim Baker an' Fred Walters, of Valdosta, demonstratin' their "Profane Tree Stand."

This is George T. Bagby, the Director of the Game an' Fish Commission, speakin' to the group after lunch. He was a right welcome change after the food, an' had some real interestin' things to say. He told about the job the men of the commission are doin', an' how the state needed to give 'em more money for the job. Ever'boday agreed too, an' the Federation voted to give their support in gettin' funds for payin' the Rangers a livin' wage



Looks like Woolly Bear an' Limpin' Rabbit. The feller on the left with the flashy shirt is Dan Quillian, archery expert, tryin' to show J. Hall how to shoot a bow. J. was about as surprised as the rest of us when he shot a bulls eye.

An' of course there was good times too, like the big dance after the banquet. That's Tommy Holloman there on the left. Tommy's still right starry eyed from his club winnin' that fine trophy an' ever'thing comin' off so good an' all.




Conger'sman Jack Flynt give a right good speech at the banquet, an' even after all that good food, you could tell the folks was real in'ested in what he was sayin' by the way they craned their heads around an' watched him real close. He said he reckoned he was almighty opposed to all this gun legislation business, an' you c'n bet all us sportsmen are too.

that was right in'esterin', them
s with their fancy tree stand, that
limbin' thing they showed us. Called
"Profane Tree Stand," or some such
ed-up name, but it was just about the
dest thing I ever saw.
er on, we had chicken or biddy or
thin', an' a handful 'a chick peas for
It was mighty scrawny vittles, any-
But to go along with it we had a speech
n George Bagby, head of the Game an'
Commission, tellin' us about all the
g; they'd been doin' an' all the things
ould be doin' if they just had enough

money to get along on. It was a pretty fair
speech. At least it was easier to get down
than them peas was.

That night, though, they made up for
the slim feed they had fer lunch. Called it
a "Smaggisbread" 'er sumpthin', but it was
a shore 'nuff pot scrapin' supper. You
should'a seen them hungry folks rootin'
down that table! But it was worth havin'
to listen to all them speeches jest ta' get
a feed like that! Then ole Pete Farrar got
up there an' did his stuff, makin' turkey
calls. Ya' know, that feller's good! Them
squawks an' clucks 'a his'n sound so real

he was beginnin' to look like a turkey to
me. Fer a minute there, I jest got to itchin'
to dust his tail feathers!

An' then they give out them fancy tro-
phys an' awards. Some feller named Mark
Trail, who made up a character called Ed
Dodd, got the top award for Georgia's
Conservationist of the Year. He's done a
good job, an' I was glad to see him get it.
But I've seen that column in the funny pa-
pers an' this Mark Trail didn't look a thing
like his picture in the funnies, except may-
be for the pipe. 

Georgia Sportsmen's Federation Conservation Awards Program



Mark Trail

Ed Dodd, right, accepts the Eagle statuette as the State Conservationist of the year from Congressman Jack Flynt, left, and awards committee chairman Tilmon Wilbanks.

The Bald Eagle Trophy STATE CONSERVATIONIST OF THE YEAR

Ed Dodd
Creator of "Mark Trail"

As the creator of the well known comic strip "Mark Trail", native Georgian Ed Dodd has been a powerful force for conservation of America's natural resources for 21 years. Through Mark Trail, he has staunchly supported preservation of endangered wildlife species and natural scenic areas. He has fought forest fires, water pollution, and soil erosion by his easily understood stories and drawings which are seen and read by more than 50 million persons of all ages every day. Mark Trail and Ed Dodd have been, and continue to be, a quietly powerful influence on public awareness of conservation.



the Conservation Awards Program

The Georgia Sportsman's Federation Conservation Awards Program was established in cooperation with the Mrs. Roebuck Foundation to recognize and encourage outstanding achievements in the conservation of land, water, forest, mineral, wildlife, and natural resources, and the preservation of natural beauty. Its purpose is to recog-

nize and encourage dedicated work by private citizens, government officials, civic and fraternal organizations, industrial firms, and communications media. Through a broad public information program, it is designed to stimulate increased efforts in the wise management of natural resources.

The highest honor, the Governor's

Award, is presented to the State "Conservationist of the Year." All state winners receive the award statuettes pictured here and become eligible for the national awards program of the National Wildlife Federation. All nominations for awards are made by affiliate clubs of the Georgia Sportsman's Federation.



Former State Federation president Tommie Holliman of Thomaston accepted the trophy awarded the Upson County Sportsman's Club as the "Outstanding Sportsman's Club of the Year."



The Buffalo Trophy
WILDLIFE CONSERVATIONIST OF THE YEAR
(Co-Winners)

David Almand
Wildlife Spec.
Coop. Ext. Serv.
Leonard E. Foote
E. Fld. Rep.
Wildlife Mgmt. Inst.



The Prairie Chicken Trophy
SOIL CONSERVATIONIST OF THE YEAR
Cecil W. Chapman
State Conservationist
Soil Conservation Service



The Black Bass Trophy
WATER CONSERVATIONIST OF THE YEAR
R. S. "Rock" Howard
Executive Secretary
State Water Quality Control Board



The Elk Trophy
FOREST CONSERVATIONIST OF THE YEAR
C. Dorsey Dyer
Head of Extension
Forestry Department
Cooperative Extension Service



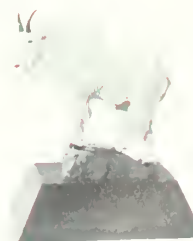
The White-tailed Deer Trophy
CONSERVATION EDUCATOR OF THE YEAR
Er. Ernest E. Provost
Associate Professor of
Wildlife and Zoology
University of Georgia



The Beaver Trophy
YOUTH CONSERVATIONIST OF THE YEAR
State Winner—
Lindy Copelan



The Mountain Lion Trophy
CONSERVATION COMMUNICATIONS AWARD OF THE YEAR
Georgia Game and Fish Magazine
Jim Morrison, Editor



The Mountain Goat Trophy
CONSERVATION ORGANIZATION OF THE YEAR
Georgia Natural Resource Education Council

The boat show's back

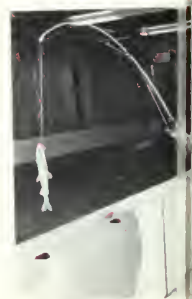
With pretty girls and bigger and better boats



Ed Conrad, who heads up the South Travel & Vacation Show in Atlanta, Feb. 9-10, is to be feeding a line to the pretty miss who has a ribbon for her to wear, ready for the Southern Boat and Sportsman Show, 11-12. The young lady with the angling instincts is Anna Youngblood. This year's show will be held at the new Atlanta Civic Center Exhibition Hall.

Your Game and Fish Commission was a big show last year. And it will be there again this year with a booth to supply you information on regulations pertaining to the state. And we'll be able to fix you up with a magazine subscription you like.

Indoor trout fishing, always present at the boat show, might make a few men envy the fish.



Sportsmen Speak...



TIDE TABLES

I am a subscriber to *Game and Fish* magazine and I appreciate such a magazine being published.

I was thinking of suggesting a tide table being published in the magazine to replace on a monthly basis. This would help the coastal fisherman greatly. If you decide one way or another, please let me know.

Lynwood Horton
Brunswick, Ga.

As a result of Mr. Horton's excellent suggestion, *Game and Fish* began publishing the coastal tide tables with the last issue, and plans to continue publishing them for each month and the following month ahead.

Readers who have suggestions for improving *Game and Fish's* coverage of the outdoors, are urged to send them to the editor for consideration.



DOG CONTROL

The city council of Elberton has been working for several months to put into effect a county wide dog control law. This law calls for a dog catcher, vehicle and establishing of a dog pound. It would be mandatory for all dogs to be inoculated yearly against rabies and would be under supervision of the health department. The city would pay half the cost and the county the other half.

City officials and interested parties have appeared before the county commissioners twice in the last several months, but so far the commissioners have not acted on the matter.

The city council is now gathering up information on damage done by dogs to assist in the cause. Any information you can send will be appreciated and will be turned over to the city council.

Elbert County Wildlife Ass'n, Inc.
Ronald C. Ouzts, President
Lawrence Cecchini, Sec'y & Treas.
Elberton, Georgia

Copies of the January '68 *Game & Fish* while "Dogged to Death" have been sent to Mr. Ouzts and Mr. Cecchini.

LOST DOGS?

We have checked with the Waycross Office and they referred us to you.

We have lost five deer dogs. We have looked and checked everywhere, but have found no trace of them.

We would like to know if you would run an ad in your magazine for us.

The name of our hunting club is "Satilla Hunting Club" located between Atkinson and Woodbine, Georgia. Here is a description of the dogs:

One red dog—tattoo in right ear "Bob Gray";

Three blaze faced dogs, two ear tattooed "Bob Gray"; one pided dog with a split in the left ear.

All the dogs had collars on, bearing the name of "Bob Gray, Nicholls, Ga. Phone 345-2976."

If you will do this for us, we will be glad to take care of the charges.

Bob Gray
Nicholls, Ga.

Game and Fish does not accept advertisements, and it is unable to effectively use missing dog or stolen boat notices, etc., both because of limited space and because all materials for publication must be received 60 days ahead of publication. Because of the time involved, most such notices would be too old to be effective.

Advertising in your local newspaper is usually the best avenue of recovery of such items. Dog owners should follow Mr. Gray's example of keeping identification collars on their dogs, along with ear marking or tattooing.



LOCKED ANTLERS

I know you are interested in "bucks" and what happens to them. So, I am passing this observation on to you.

On Saturday, November 4, 1967, while fishing on Chickasawhatchee Creek, we came upon two drowned bucks. Upon investigation, we discovered they had locked horns, and in turn got mixed up with some cypress knees and roots and had their heads entangled under water. We dislodged them and cut off their heads. The antlers were so thoroughly entwined that the heads had to be cut down considerably to get them untangled. The deer were so large that I could not pull them all the way out of the water. Estimated weight — 200 lbs. or better, each. One set of antlers has 10 points; the other, 13 beautiful points and two more almost developed.

Thought you might be interested in this discovery. The deer were discovered about 4 miles up Chickasawhatchee Creek from the bridge at Elmodel. We had no camera with us, so no pictures are available.

We are enjoying your Department's publication, "Game and Fish".

Louis O. Kidd
Thomasville, Ga.

Expired Subscription?

If you were one of the 15,000 subscribers to Georgia *Game and Fish* who subscribed last year by February 1, 1967, your subscription may be about to expire. Check the date on your mailing label to see what month you will receive your last issue if you do not renew in time. To make sure that you don't miss a single issue of **Game and Fish**, send in your renewal subscription now in the postage-paid envelope attached to a recent issue. A minimum of 30 days notice is required to renew your subscription. Beat the rush! And this time, why not subscribe for three years and save half a dollar! Three years — \$2.50; One year \$1.00.

Send your name, address, and zip code with your check made payable to the State Game and Fish Commission, 401 State Capitol, Atlanta, Ga. 30334.

DO IT NOW!

the outdoor world



Seminole Bass Tournament

It's nothing new for a widely renowned bass lake like Seminole to have to put its reputation on the line.

But come February, not only the lake, but some 150 top drawer bass fishermen will pit their reputations against each other.

A bass fishing extravaganza, the Seminole Lunker Bass Tournament, has been set for Feb. 22, 23 and 24, which is bound to prove just how good Seminole is as a bass lake. Not only that, but each of the fishermen will have to prove their skill.

Certainly, each angler must have a great deal of confidence in his own ability. This is assured by the \$125 entry fee.

Ray Scott of Montgomery, Ala., who has staged similar tournaments at Beaver Lake, Ark., last June, and at Smith Lake, Ala., in October, is spearheading the fishing spree.

Scott says he expects to have anglers from 25 states participating, and he won't be surprised if he has 150 entries. While the entry fee is high enough to keep away the amateurs, there is plenty to offer the

winners. More than \$6,000 in cash, plus trophies and other awards will be distributed to the top anglers of the affair.

Winners will be determined by a point system. One point per ounce of fish caught will be awarded, but anglers may not catch over the limit of 15 bass per day. The champion angler will take home \$2,000 as his prize. Prizes will be given in 14 other awards.

And these accomplished bass fishermen will also have another goal to shoot for. Known for its exceptionally big bass, Seminole produced a new lake record a year ago, when a 16½ pounder was caught. A new record would provide many a point for its captor.

Anyone wishing to enter should contact Scott at National Tournament Headquarters, 317 Holly Ridge Rd., Montgomery, Ala. 36109.

In explaining how the tourney operates, Scott said two competing fishermen will be in a boat together, with partners changing each day. All fishermen leave the dock at the same time, 7 a.m., and must return by a time set that afternoon. Each man will be allowed to operate the boat for an equal amount of time. While he is operating the boat, the contestant may choose the spot where he and his partner will fish.

By putting two competitors together in the same boat, Scott said, each entry keeps an eye on the other to make sure he obeys the rules of the contest. Rules are quite rigid, he pointed out.

Entrants may furnish their own boats and motors, and may use electronic depth finders. They may use only artificial lures, and must use only one rod at a time, although another may be rigged and ready for use. Spinning, casting or spincasting tackle only, may be used. Trolling is not allowed.

and the number of deer available. A season of more than a month lasting until Thanksgiving would be too long for present conditions. Opening the season during the entire month of November has several advantages. This is the time that bucks are usually rutting, moving more freely and less cautiously, offering better hunting for them. In addition, the leaves are falling rapidly from the trees, making for better visibility.

As far as the October 15 deer season in Southeast Georgia goes, most game biologists feel that it is too long, especially in an area where dog hunting is allowed, but their objections were overruled by less well-informed opinions of hunters in the area many years ago.

Earlier in the season, many squirrels are discarded by hunters because of running sores caused by "wolves" or warbles, the larval form of a parasitic fly. The warbles don't hurt the

While Seminole has proven time and again that it has the bass, anglers who have been there know that it is no pushover. It will take expert fishermen to produce well enough to be in the competition.

By Dean Wohlgenuth

Fish Camps Offered Opportunity to Host Outdoor Writers

Fishing camps, lodges, motels, bait shops, landings and other firms who solicit the trade of fishermen or other outdoor sportsmen, are invited to participate in the Outdoor Writers Association of America convention next Fall.

Most such facilities in the state have a ready been contacted by letter, but Dean Wohlgenuth of the Game and Fish Commission, national chairman of the convention, said that probably some camps were overlooked.

In addition, the Commission is compiling information about all such facilities in the state, in hopes of publishing a directory containing complete information about each such location. These firms are asked to contact Wohlgenuth in order that information can be obtained.

In regard to the OWAA convention, Wohlgenuth said, camps, lodges, landings, etc., will be offered the opportunity to provide story-gathering trips for a few writers either before or after the June 22-29 convention. Trips should last two to four days. Facilities should provide, if necessary, lodging, meals, boats, motor guides and other such needs for writers. In some cases, writers will be accompanied by their families.

For further information, contact Dean Wohlgenuth, Convention Chairman, the Information Office, State Game and Fish Commission, 401 State Capitol, Atlanta, Ga. 30334.

Open Squirrel-Deer Season Together

Continued from inside front cover

must run longer to allow for any harvest of squirrels at all, ending this year on the last day of February, theoretically the time up to which poachers may still kill deer with impunity. Unless other sportsmen are willing to turn them in, they can probably poach deer twelve months of the year, even using spotlights from automobiles if they choose.

At their recent annual convention in Macon, the members of the Georgia Sportsmen's Federation defeated a proposed resolution asking for joint opening of the squirrel and deer seasons.

Moving the dates of the deer season up to October 15 isn't a good idea, Handy notes, especially if the season isn't to be too long for the number of hunters expected that season

squirrel, because they live off lymph tissue the membrane between the skin and muscle of the squirrel, dropping off by late October or early November, after which the sores heal. But if the squirrels with sores are cooked, they offer no danger to the hunter eating them.

What is the answer to the early season poacher? "It's a law enforcement job," Handy says. "If you catch a man with the evidence, let him know through stringent court action that he has been caught and heavily fined, remember it. A \$10 fine's nothing—that's just wrap on the knuckles. He should be treated like the criminal that he is."

Perhaps Handy describes it best when he points out that "deer poaching is the same as going out on a state-owned forest, cutting down some trees, and hauling them off, just stealing them. The only difference is that the poacher doesn't leave a stump that you can look

Sportsman's Calendar

SEASONS NOW OPEN

GROUSE, RUFFED

Season—Oct. 14, 1967, through Feb. 29, 1968.
Bag Limit—3 Daily, possession limit 6.

OPOSSUM

Season—Oct. 14, 1967 through Feb. 29, 1968.
Bag Limit.

QUAIL, BOBWHITE

Season—Nov. 18, 1967 through Feb. 29, 1968.
Bag Limit—12 Daily, possession limit 36.

RABBITS

Season—Nov. 18, 1967 through Feb. 29, 1968.
Bag Limit—5 Daily.

S. Ga. Bag Limit—10 Daily.

North Georgia includes the counties of Harris, Talbot, Upson, Monroe, Jones, Baldwin, Hancock, Warren, McDuffie, Columbia, and all counties north of those listed. All counties south of those listed above on the fall line are considered part of South Georgia.

RACCOON

N. Ga. Season—Oct. 14, 1967 through Feb. 29, 1968, in Floyd, Bartow, Cherokee, Forsyth, Hall, Banks, Franklin, and Hart counties and all counties north of these counties.

N. Ga. Bag Limit—One (1) per night per person.

S. Ga. Season—No closed season.

S. Ga.—No Bag Limit.

SQUIRREL

Season—Oct. 14, 1967 through Feb. 29, 1968.

Bag Limit—10 Daily.

TRAPPING SEASON

Season—Nov. 18, 1967 through Feb. 29, 1968.

Mink, Muskrat, Opossum, Otter, and Skunk. Raccoon—closed in Floyd, Bartow, Cherokee, Forsyth, Hall, Banks, Franklin, Hart and all counties north of these counties. No closed season south of the listed counties.

No closed season on beaver, bobcat, and fox.

No bag limit in any section of the state.

No other wildlife except those specified may be trapped at any time.

WILD TURKEY—Fall Season

Southwest Ga. Season—Nov. 20, 1967 through Feb. 29, 1968, in the counties of Baker, Calhoun, Decatur, Dougherty, Early, Grady, Miller, Mitchell, Seminole, and Thomas.

Bag Limit—Two (2) per season.

STATE MANAGEMENT HUNTS

NOW OPEN

All small game in season—Altamaha, Lake Seminole, Whitesburg, Allatoona, Brunswick Pulp and Paper Area. No permits required for small game hunting.

Holding a Meeting?

If your club or organization is holding a meeting, convention, field trial, etc. that the public is invited to, send **Game and Fish** the dates, location, and other pertinent information for use on the Sportsman's Calendar page. All notices must be received at least two months prior to the date of publication from the first of the month to be used in the magazine. The editor reserves the right to determine if a notice is used, depending on space requirements and the subject matter.

FEBRUARY, 1968

	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
Thurs.	10:06	7.0	10:18	6.5	3:54	4:18
Fri.	10:42	6.6	11:00	6.4	4:36	5:00
Sat.	11:24	6.2	11:42	6.2	5:18	5:42
Sun.			12:00	5.9	6:00	6:18
Mon.	12:24	6.1	12:42	5.6	6:48	7:06
Tues.	1:12	6.0	1:24	5.3	7:36	8:00
Wed.	2:00	6.0	2:18	5.1	8:36	8:54
Thurs.	2:54	6.0	3:12	5.0	9:36	9:48
Fri.	3:54	6.1	4:18	5.0	10:30	10:36
Sat.	4:54	6.3	5:18	5.2	11:24	11:30
Sun.	5:48	6.7	6:06	5.6		12:12
Mon.	6:36	7.0	6:54	6.0	12:18	12:54
Tues.	7:18	7.3	7:36	6.4	1:06	1:42
Wed.	8:00	7.4	8:18	6.7	1:54	2:24
Thurs.	8:36	7.5	9:00	7.0	2:36	3:06
Fri.	9:18	7.4	9:42	7.1	3:24	3:42
Sat.	10:06	7.2	10:30	7.2	4:12	4:42
Sun.	10:48	6.9	11:24	7.1	5:00	5:12
Mon.	11:42	6.5			5:48	6:00
Tues.	12:18	7.0	12:36	6.1	6:48	7:00
Wed.	1:24	6.8	1:42	5.7	8:00	8:06
Thurs.	2:36	6.6	2:48	5.5	9:12	9:18
Fri.	3:54	6.6	4:06	5.6	10:18	10:24
Sat.	5:06	6.8	5:18	5.8	11:18	11:30
Sun.	6:06	7.1	6:18	6.2		12:12
Mon.	7:00	7.3	7:12	6.6	12:24	1:06
Tues.	7:42	7.4	7:54	6.9	1:18	1:48
Wed.	8:24	7.3	8:30	7.0	2:06	2:30
Thurs.	9:00	7.1	9:06	7.0	2:48	3:12

TIDE TABLE

FEB.-MAR. 1968

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).....	0	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
JAN.	7	15	22	29
FEB.	6	14	21	28

MARCH, 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1. Fri.	9:30	6.8	9:42	6.9	3:24	3:48
2. Sat.	10:06	6.5	10:18	6.8	4:06	4:24
3. Sun.	10:42	6.2	10:54	6.6	4:42	5:00
4. Mon.	11:12	5.8	11:36	6.4	5:18	5:36
5. Tues.	11:54	5.5			6:00	6:18
6. Wed.	12:18	6.3	12:36	5.3	6:54	7:06
7. Thurs.	1:12	6.1	1:30	5.1	7:48	8:06
8. Fri.	2:06	6.1	2:30	5.0	8:54	9:06
9. Sat.	3:06	6.1	3:36	5.1	9:54	10:06
10. Sun.	4:12	6.3	4:42	5.5	10:48	11:00
11. Mon.	5:12	6.7	5:42	6.0	11:36	11:54
12. Tues.	6:00	7.0	6:30	6.6		12:24
13. Wed.	6:48	7.4	7:12	7.2	12:42	1:06
14. Thurs.	7:30	7.6	7:54	7.6	1:30	1:54
15. Fri.	8:18	7.7	8:36	7.9	2:18	2:36
16. Sat.	9:00	7.6	9:24	8.0	3:06	3:18
17. Sun.	9:42	7.3	10:12	7.9	3:54	4:00
18. Mon.	10:30	6.9	11:06	7.6	4:42	4:48
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21. Thurs.	1:12	6.9	1:30	5.7	7:42	7:54
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27. Wed.	7:18	7.1	7:30	7.2	1:00	1:18
28. Thurs.	7:54	7.1	8:06	7.4	1:42	2:00
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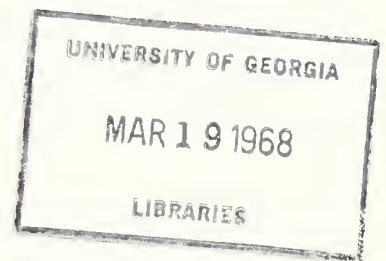
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GAME & FISH





GEORGIA

GAME & FISH

March 1968

Volume III

Number 3



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation.

Contents

Coosa Crappie: Lock and Dam	Jim Morrison	1
Arrow Affair	Jim Tyler	6
Shooting Questions, Hunting		
Answers	Dean Wohlgenuth	8
Shootout—On the Range!	Jim Morrison	9
A Record Buster!	Jim Morrison	10
Outdoor World	Staff	15
Sportsmen Speak	Readers	16
Sportsmen's Calendar		17
Tide Table		17

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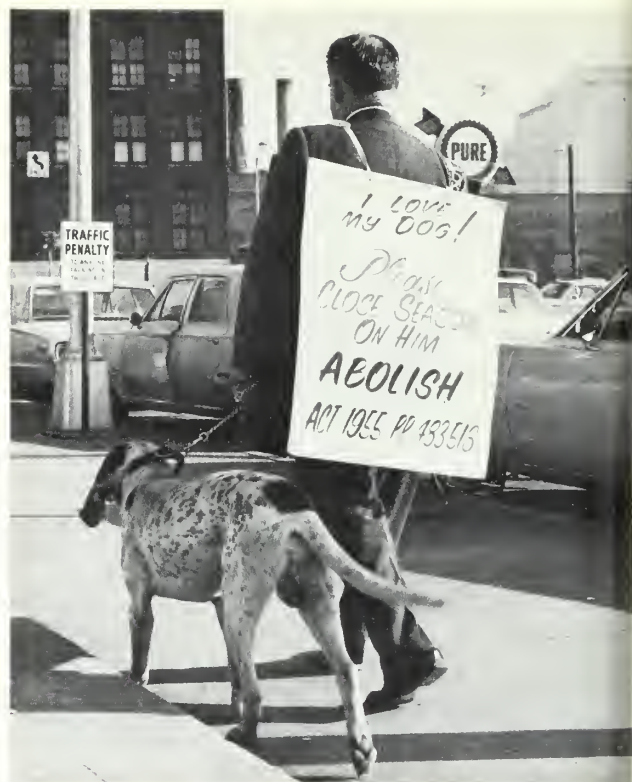
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Reaction: "Dogged to Death"

Sometimes we wonder how much good *Game and Fish* Magazine is doing to conserve wildlife in the State of Georgia, in spite of many compliments about how pretty it looks, how good the photographs are, and how much sportsmen enjoy the articles about how and where to hunt and fish in this wildlife wonderland of ours that so few of us appreciate.

But when a magazine article like "Dogged to Death" in the January issue this year can set off a chain reaction of concerned comment all over Georgia, reaching even past the borders of the United States, then we feel that some little progress is being made at solving one of the most sensitive problems in the field of wildlife conservation.

No article that has ever appeared in *Game and Fish* Magazine has generated so many personal comments, telephone calls, and concerned letters than the "Dogged to Death" article and photographs. Here is a sample:

I have read with interest your article "Dogged to Death" in the January 1968 issue of *Game and Fish*.

I have been aware for some time of the problems caused by wild dogs and have on occasion experienced losses to these dogs. I live in South DeKalb County where acreage still yet undeveloped and my neighbors, too, are plagued by wild dogs. I was unaware that the problem was so extensive and costly not only to hunters but to farmers, cattlemen and the general population as well.

Continued on page 5

ON THE COVER: The crappie is a Georgia favorite, and March is his month. Soon, thousands of Georgia anglers will be lining the banks of their favorite crappie fishing holes, like the lock and dam on the Coosa River below Rome. This photograph was taken in the public aquarium of the National Fish Hatchery at Millen, Ga., by Ted Borg.

ON THE BACK COVER: The stately redtailed hawk symbolizes the theme of National Wildlife Week, March 17-31. "Learn to Live with Nature." Even though the hawk plays a vital role in destroying sick and diseased animals and in reducing the population of serious pests like rats and mice, the hawk and the owl are still among the most despised and misunderstood of nature's creatures. Photo by Dr. W. D. Sudia.

PHOTO CREDITS: Ted Borg i.f.c., 6,7,10; Dan Keever 9-11; Jim Morrison 1,2,3,4, t.r. 15; Bill Murphy t. 1,15; Jim Tyler t.r.-11.

COOSA CRAPPIE

By Jim Morrison



The old lock and dam on the Coosa River near Rome is the best fishing hole in Northwest Georgia. Undoubtedly, it's also the most popular, both for bank fishermen and boatmen, using an excellent concrete launching ramp there.

"I hear the crappie are biting pretty good up at the lock and dam. You ought to go up there and give them a try." "Lock and dam? "Where is it," I asked.

"Why, up at Rome," came the surprised answer. "On the Coosa. You can't have heard of it?"

On second thought, I had heard of the Rome lock and dam, several times, but I still didn't know many of the details. That location had cropped up several times in conversations with wildlife managers and fish biologists. I had even heard it on the daily radio fishing report that I was doing at the time, based on reports from the Calhoun district ranger office.

After a few more interested questions, I learned that the "lock and dam" was an old abandoned structure on the Coosa River near Rome that once was used to allow barge travel from the Gulf of Mexico to Rome. Now, the old dam was a popular fishing spot, because fish running upstream in the Coosa congregate below it, where they are caught in fabulous numbers, according to my informant.

It sounded worth looking into. What to do?

Contact Barton. Farill Barton, the ranger up there in Floyd County. He'll show you out any way he can."

A few days later, early on a February Saturday morning, I parked on the left of the four lane highway, U. S. 411,

that enters Rome from Atlanta. In a few moments a green pickup truck with a tall antenna rolled up behind me and stopped.

"Howdy, Jim!"

A friendly, six-foot-two, 200-pound giant named Farill Barton climbed out, smiled and walked toward me.

"It's about time you paid some attention to us folks up here," he grinned. "We've got some fishing up here that we're real proud of. You just won't believe it."

"Seeing's believing," I replied, and in a few minutes I was following Barton into downtown Rome on U. S. 411, where we turned left onto Broad Street (U. S. 27), the main Street in Rome. Following Broad Street and U. S. 27 through town, we turned right leaving U. S. 27 at a filling station onto South Broad Street, which soon turned into Black Bluff Road. After about seven miles, we turned right onto a road marked by a "Lock & Dam" sign.

We had left the pavement behind now, and I hadn't seen a sign of a single fisherman yet. About the time I had begun to wonder if I had been put on a wild goose chase, we came in sight of the graveled parking lot.

There were cars by the hundreds! Getting a parking place wasn't easy. We had to wait for someone to leave before we could pull our vehicles out of the way, get out, and see what all the excitement was about.

It didn't take long.

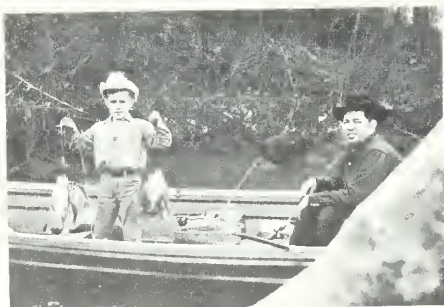
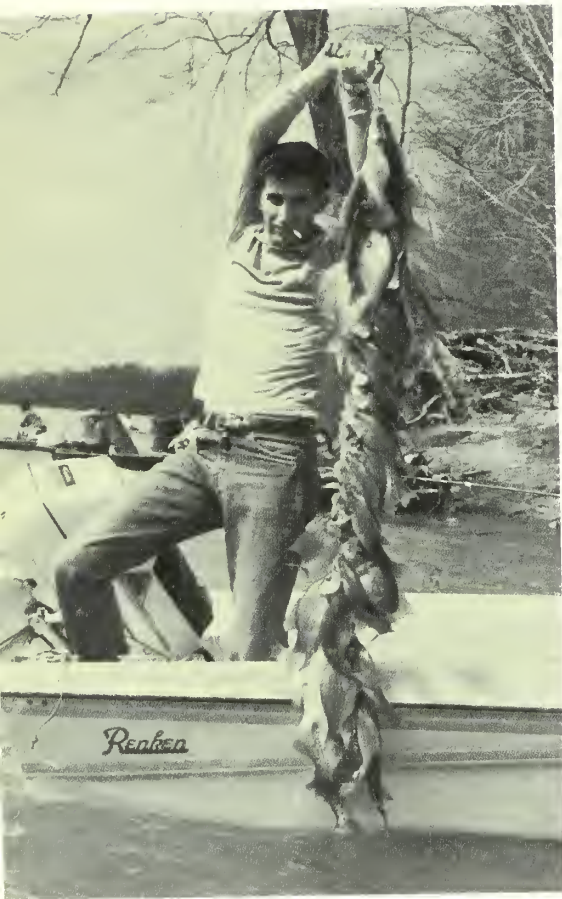
Just a few steps away, a spectacular sight met my eyes as the big, rushing green waters of the Coosa thundered over what looked like a large rock shoal running across the river. Nearer to the east bank, dozens of fishermen lined the monolithic concrete wall of the ancient, unused lock.

Below the lock, several dozen more fishermen stood elbow-to-elbow at the water's edge, alternating casting small minnows and plastic bobbers into the river and occasionally pulling back a lacy-finned black crappie. Further down the river, 30 to 40 boat loads of fishermen were tied up against both banks, leisurely fishing and taking in the early February sun.

"Where's the dam?" I asked, looking curiously at a concrete wall on the far bank opposite the lock and the rock shoal.

"You're looking at it," Barton smiled, lighting up a King Edward cigar, one of his trademarks. "The Corps of Engineers made the dam by loading big chunks of rock onto barges upstream, then floating them down the river and dumping them off on the dam. That held the water back enough to let barges go on up to Rome from the Gulf, and to make the lock work. There never was any concrete dam here."

Live and learn! Later, I found out that the dam and lock were built in 1915, and were in regular use until



Crappie fishing is good at the lock and dam! Lonnie Hays of Douglasville strains under the load of 50 one pound or better crappie, caught by Hays and Bill Fields on white dollfy jigs.

Guess who's stringer is the largest! Nine year old David Mathis of Lindale can catch them just as good as his Uncle Charles. Many youngsters and women fish at the lock and dam.

1945, when barge traffic petered out on the Coosa, as it did in many other places years earlier when railroads, truck lines, and airplanes assumed dominant roles in inland transportation. Coupled with soil erosion and siltation that filled in many formerly navigable streams, like the Chattahoochee to Atlanta, barges faded out of the picture.

"Come on, let's see how fishing is," Farill said, heading for the lock. "Don't forget your camera."

Barton didn't waste any time walking over the narrow, railless lock gate at the upper end, twenty feet or more above the water. Never having been much of a tightrope artist, I couldn't help letting Farill notice my hesitation about following him across.

"Don't worry, you can make it. Let me hold your camera."

Taking my life into my hands and my heart into my throat, I teetered across the rusty iron walkway to the safety of the wide concrete lock wall. Resisting the impulse to fall down and kiss the firm footing, I cast a nervous glance toward the calm river water, just above the raging torrent a few feet away at the dam. Gratefully, I noted that the lock doors at the lower end of the lock sported an iron railing.

"We'll go back that way," Farill laughed. "I want you to talk to some of these fishermen. This isn't a playhouse like Allatoona and Lanier. They're just serious fishermen."

It didn't take long to see that they were catching fish. Not hand over fist, but with more regularity than I've been accustomed to. Most of the fish were crappie, hand size and larger, interspersed with catfish and bream, although most of the fishermen were using small crappie minnows.

After admiring several well-stocked ice chests of goggle-eye, I was a little surprised at the answer to Barton's question. "How's fishing?"

"Not too good," replied one. "Water's a little stained today. Etowah's muddy again. You should've been here last weekend. We really caught 'em."

Even though the famous words had been spoken, I didn't really believe them, especially in light of the number of fish the angler had already strung.

"He's right," Farill said. "They just aren't catching them like they did a while back. When this water clears up some more, the crappie'll start running again."

Actually, one of the main reasons I had been attracted to the lock and dam was an article written by fish biologist Mike Bowling in the February, '67 *Game and Fish Magazine*. "Catch Mr. Tasty." The article said that the lock and dam was one of the best walleye fishing spots in Georgia, especially on

the spring spawning run in January, February, and early March.

But I had yet to see a single walleye. "He's got a good'n," somebody yelled. Looking back to the side of the lock wall that I had just photographed, a slim elderly man was having the fight of his life with a monster fish in the swirling water below. Judging from the bend in the light spinning rod, the fish had to be a good one, but he wouldn't show himself. "Probably a catfish," Farill said.

Slowly, foot by foot, the fisherman walked the fish alongside the lock wall toward a ladder at the far end as the other excited fishermen drew in their lines to let him pass. The thin monofilament line didn't look too strong, especially beside the sharp pieces of iron rod that jutted from the lock wall in a few places.

"Anybody got a net?" somebody shouted. "Take mine," someone else volunteered. An agile young man grabbed the net and began backing down the narrow ladder in the inside end of the lock wall toward the water.

"It's a pike," Farill exclaimed, as the top of the olive-brown fish broke the top of the muddy water for the first time. From the top of the lock, the walleye looked a yard long, lying almost exhausted on top of the water. Hanging from the ladder with one hand, the boy cautiously netted the big fish and toted him back up the ladder while the excited onlookers cheered.

"Look at the size of 'em! Anybody got a scale?"

Everybody knows how accurate most tackle box scales are, but the big walleye pulled the indicator past the five-pound mark—a far bigger walleye than I had ever seen, or any of the fishermen around.

"That'll be some fine eatin'," everybody agreed, except for a few purists who insisted that the captor should have it mounted for posterity.

Taking out my notebook, I learned that the lucky fisherman, Quinton Warren of Calhoun, had never caught a walleye before. He landed the whopper on small number six crappie hook, using small minnow fished with a plastic float right beside the lock wall, just below the dam.

Strangely enough, although Quinton's bobber had jerked like a crappie was striking it, he hooked the big needle-toothed fish in the back of the dorsal fin, accounting for his wild battle with the "pike," as it's known in some parts of Georgia. Incidentally, the walleye is a native of the Coosa River and of a handful of Georgia streams that flow northward into the Tennessee River, although it has been stocked by the Game and Fish Commission in many other lakes, being most successful in Lake Hartwell and Blue Ridge.

Let's go eat," Barton said. "Then I'll take the boat downstream a piece to see how the boat fishermen are doing."

Earlier, I had noticed a set of steps on a powerline that disappeared down the steep bank of the parking lot, but hadn't investigated. They led to a pile of houseboats tied together and to the bank, festooned with Coca-Cola signs advertising the services of Bill Farill's Boat House.

Bill turned out to be a stocky, hard-looking type of fellow who doesn't let grass grow under his feet. Our conversation with him was frequently interrupted while Bill rushed out to rent a fisherman one of his fleet of small fishboats or motors, or to fill up a minnow bucket. Business was booming, at least at the moment.

Bill ran out of fishing licenses last year when I came down the first week in April. A lot of people hadn't renewed their licenses by April first. When they saw me checking, they reentered in a hurry!" Farill laughed.

He really helped business out that year. Bill grinned, rushing outside to let a fisherman load his small trolling motor in a boat tied to the rail.

After wolfing down several hot roast beef and gravy sandwiches, I wasn't surprised I hadn't touched the sardines and eggs I had brought along for an emergency lunch. After talking a little more with Bill and his wife about fishing at the lock, Farill and I headed downtown by boat.

Sliding across the river from Crum's boat house, we pulled up beside a row of boats parked on the opposite bank. "How're they bitin' boys?" called out Barton. "Let's see your fish."

I'm sure my eyes must have bugged out when a young man in the nearest boat began pulling up a string of crappie that didn't end until it trailed from his head to the water. His arms trembled with the weight of the stringer in his hands. Everyone of the fish on the stringer would have gone a pound or better in size.

"There's 50 on here now," said Lonnie, a boy of Douglasville, fishing with his friend Bill Fields. "We caught them on doll flies, just fishing slowly, jigging the bottom."

"Don't worry, the limit's 40 crappie," Farill reassured me. "It's not unusual for them to catch the limit here in February and March, when the crappie are really running. It's still a little early in February. November and December are two of the best months for crappie, but the white bass don't run usually until late March or April, depending on the weather. Then the catfishing starts until June. Bream and bass drift all year long, at times, but few people



Quinton Ward of Calhoun is really proud of this five pound walleye, the first he had ever caught. Ward caught the whopper on a number six hook and a small minnow while fishing for crappie. On its spawning run, the excellent eating fish was full of eggs.



Victory at last! Ward reaches for the big walleye hooked from the lock wall, landed by Billy Stephens of Lindale. Ranger Farill Barton and fellow fishermen share in the excitement of the battle.



The rushing waters of the big Coosa River pour over submerged rocks that form the old dam, creating a fishing hotspot . . . and a boating hazard. Several careless fishermen have capsized below the dam, and a few boats have even gone over it.

If you've got vertigo, the lock wall isn't the place for you. It doesn't seem to bother many anglers, and the crappie fishing is good, although the best strings are caught from boats on the downstream banks.

ple fish for them."

Floating on downstream, we talked with other fishermen, most using either white or yellow doll flies or minnows. I didn't see a stringer with less than a dozen crappie on it, yet most of the fishermen said things were slow! But I was impressed.

Finally we drifted past the tied up boats and moved on down the Coosa, closer to Alabama. Tying up to a floating dock below a cabin owned by a friend of Barton's, we talked about the lock and dam and its fishing with two members of the Floyd County Wildlife Association.

Basically, the Coosa River is formed by the conjunction of the Oostanaula and the Etowah Rivers inside the city limits of Rome, then flowing past the lock and dam out of Floyd County into Weiss Reservoir in Alabama. In fact, the relatively still backwaters of Lake Weiss end at the foot of the Rome dam. Except at high water, spawning fish traveling upstream from the lake can't swim over the steep drop-off at the dam, causing them to congregate at the foot of the lock and dam, providing unusually good fishing. A similar situation occurs at a few other Georgia dams where the waterflow is consistently great enough to attract and support spawning fish with navigation and oxygen requirements.

"There are some real good walleye holes downstream here," Barton ex-

plained, "but only a few local people know where they are. There are some gosh-awful bass caught in the spring in some of these sloughs where the lake backs up the river, but only a handful of fishermen can catch them."

Another good fishing area further downstream is Big Cedar Creek, where the State Game and Fish Commission constructed a boat launching ramp as a playground with Floyd County and the Cave Springs Wildlife Association on Brushy Branch. "But the crappie and white bass run lasts longer at the lock and dam," Farill adds.

There is an excellent hard surf boat launching ramp at the lock and dam, just below the lock, that was built by Floyd County. If funds are still available, the Game and Fish Commission has plans to build another ramp about a mile downstream from the dam on the northwest side of the river, so that residents of the area won't have to make the lengthy detour through Rome to reach the lock and dam on the southeast side, as is presently the case. "I hope we can get the paperwork cleared away and get the ramp built by July 1," Farill said.

The Coosa and Lookout Creeks are the only streams in Georgia with a substantial population of freshwater drum and smallmouth buffalo, two fish common to Tennessee. Fishing for drum with small white crawfish used to be popular at the lock and dam, but

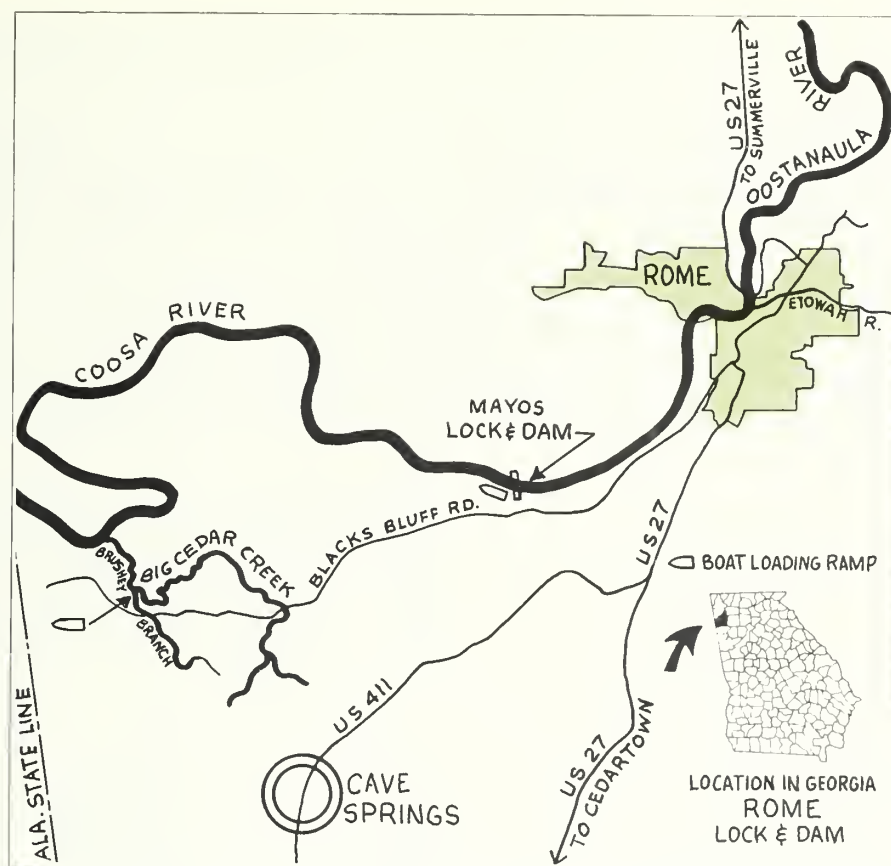
te bass and crappie have succeeded in popularity with the construction of Lake Weiss, Barton says.

The Coosa is also the home of many large fish seldom seen by most sportsmen, like sturgeon and paddle fish. Wildlife rangers and fish biologists of the Game and Fish Commission are unanimous in declaring the lock and dam on the Coosa as the best crappie and white bass fishing hole in North Georgia.

But every apple has its worm, the worm goes. The worm in the Coosa is pollution. Rightfully or wrongly, the Coosa below Rome has been described in the past as one of the most polluted streams in Georgia. Water quality experts point out that the Coosa has been as polluted as the Savannah River below the city of Savannah, but they do point out that all of the acid and most of the aquatic life in a section of the Oostanaula above the Coosa were killed by acid pollution from a Rome textile industry in both 1962 and 1963. But now, the industry involved has changed its operations, closed down some activities, and installed extensive treatment facilities, reusing much of the wastes that were once dumped into the river. Sewage from the plant now goes into the Rome city sewage system.

For years, the city of Rome dumped its raw sewage directly into the Coosa from numerous sewer outlets, completely untreated. Now, the city has installed a multi-million dollar sewage treatment plant, and more than 50 per cent of its sewage outlets have been fed into the plant. As federal aid funds and tax money are made available, some of the smaller outfall sewer lines will be connected with the secondary sewage treatment plant.

From the fishing standpoint, probably the most serious pollution of the Coosa has come from the strip mining operations of the Allatoona company on the Etowah below Allatoona Dam. The company used water to wash mud and sand from its ore, then flushed the waste water and its burden of smothering silt into the river. Fluctuating discharges from the Allatoona Dam compounded the pollution. For years, the muddy waters of the Etowah could hardly be distinguished as they met the clearer waters of the Oostanaula at the dam. But now, thanks to a series of settling ponds where the mud is trapped and clear water drained off, the Etowah is clearer than the Oostanaula. The water still muddies up occasionally when large discharges are made from Allatoona and when rain muddies the side channels, but the situation is much better. In fact, with the treatment progress



that has been made upstream from the lock and dam, rangers and biologists of the Game and Fish Commission and engineers of the State Water Quality Control Board all feel that fishing will be greatly improved in the Coosa, and especially the Etowah, resulting in better walleye, crappie, and white bass runs.

And biologists are quick to point out that fish caught now in the Coosa at the lock and dam are perfectly safe to eat, especially since they are cooked before eating, unlike shellfish such as oysters and clams.

It was getting later now. After trying a few fruitless casts into a walleye hole Barton had heard of, we motored back upstream to the ever-roaring water cascading over the dam. Nearing the middle of the river, Farill suddenly raised his binoculars and studied a man dangling his line off the lock wall.

"That fellow looks like he's trying to snag a fish," Farill said. "That's the worst problem I have here. Some people just can't seem to resist trying it when they can see the fish pile up against the wall. Generally I don't have too much trouble with violations here. Most folks buy their licenses and obey the law. They just want to fish and not bother anybody. I check a lot of boats here, and almost all of them have all of their life preservers and registration in order. This is a dangerous place to use a boat, especially in that swift water below the dam, but everybody's usually pretty careful."

But, Barton could recall several boats that capsized in the swift water trying to fish too close to the dam, causing several drownings over the years. "We even had some boats to go over the dam from upstream," Farill noted.

I was still determined to have one more try at catching a walleye like the one caught earlier that morning, so we made a few more futile casts in a bend of the river on a gravel bed just below the dam. Before giving up completely, I decided to cast some for crappie.

"Go try that sandbar over there," Farill pointed. "The bottom's smooth there, so you won't have to worry about snagging up, and they catch a lot of crappie over there."

Tying on the lightest white doll fly jig that I could find in my tackle box, I stepped out of the boat onto the sandbar and made a cast off the bank. Bingo! My light rod bent to the almost forgotten feel of a fish, something I hadn't experienced since the beginning of the hunting season, now almost over. After a short struggle, I reeled in one of the fattest crappie I've caught in years!

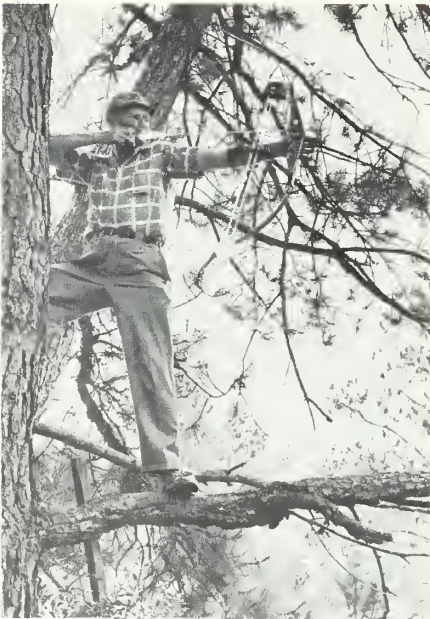
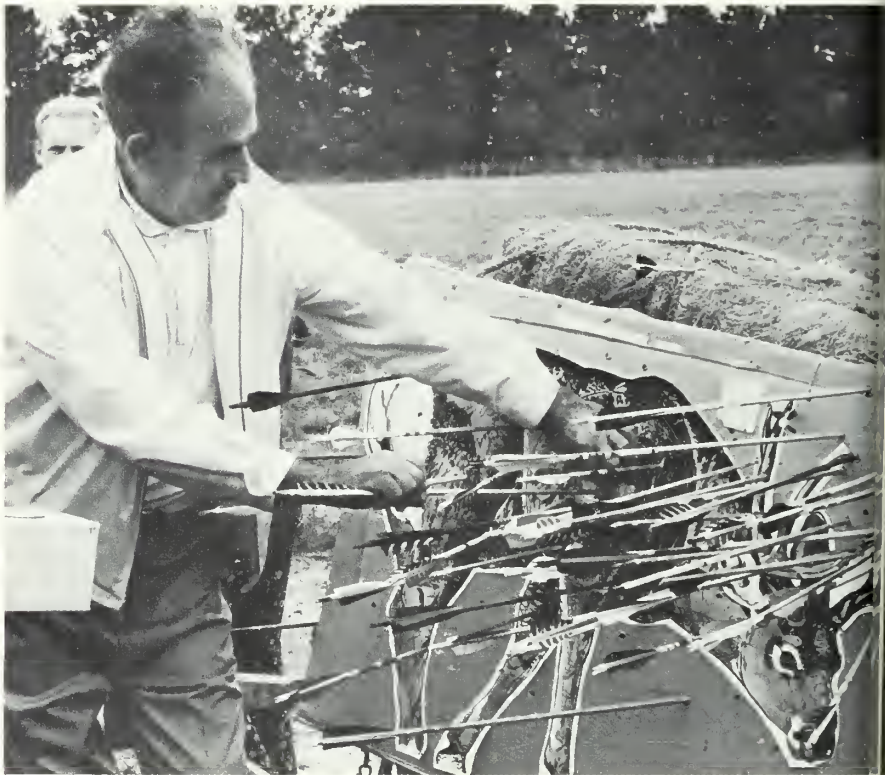
"You should have spent the day right here," Farill smiled. It was getting dark and cold fast now, so we climbed back into the boat and headed for the boat-house on the far shore. "But don't worry, now that you know where the lock and dam is, you won't wait so long to come back the next time."

I didn't argue.



Georgia Bowhunters fire away at realistic "running deer" target towed behind truck at the GBA heavy tackle shoot at Valdosta, using regular hunting weight bows. The driver is protected by a wooden panel over the window.

World-famous archer Howard Hill removes arrows from the "running deer" target. Hill, a native of Alabama, has bowhunted big game around the world, produced dozens of outdoor movies, written two books on archery, and demonstrated his skill at several world fairs.



For many, the primary purpose of field archery is practice for hunting. Bill Moody of Douglasville shoots from a tree stand, a location favored by more bowhunters each year. The Valdosta tournament was designed to resemble hunting conditions by requiring the bowmen to shoot from trees, etc.

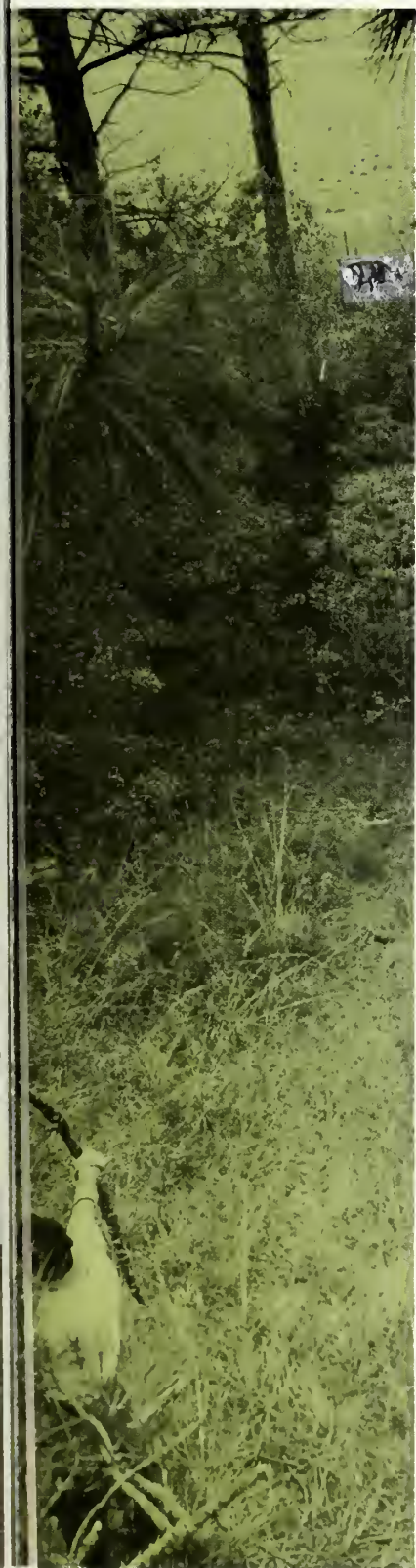
Mrs. J. W. Cannon, Garden City, is typical of the many attractive young ladies who now participate in field archery competition. She is using a 40 pound pull hunting bow required for the heavy tackle shoot. Most regular tournaments allow lighter pull bows, encouraging women to compete.



ARROW AFFAIR

By Jim Tyler

is deer target set out in thick brush the Valdosta GBA heavy tackle shoot typical of the shots offered to many whunters each fall. Note the arrow passing through a narrow opening to find its mark.



■ Some archers put a little bounce in the oftentimes dreary hunter's necessity—target practice. In fact, they spice it up considerably. They gather in festive spirits and compete against each other by twanging arrows at cardboard animal targets.

Probably the biggest Georgia get-together archery contest last year was the State Heavy Tackle Tournament held at Valdosta. Over one hundred archers throughout the state gathered, resplendent in outfits proudly proclaiming their affiliations to various archery clubs. The Merryman, Black Arrow Archers, Annawakee Bowmen, Tome-Chi-Chi Bowmen, and the Black Knight Archers were some of the clubs represented at the meet.

And not all the archers were of the Robin Hood or the Black Knight kind. Four ladies held steady bows of 40-pound-plus draw and shot right along with the men.

Before the contest started, contestants were separated into groups of four. Each group then proceeded through the course of 28 cardboard animal targets set up along a zigzag trek through the high grass, bush, and tree countryside some 12 miles from Valdosta. Targets were painstakingly situated in spots where archers would have to shoot through tips of tall grass or through an opening between tree branches.

A stake was located close to each target, marking the spot from which the archer must shoot. The targets were various distances from the stakes, but 50 yards or so was probably the maximum. It was tricky shooting.

"How do you score each target?" I asked.

"It's simple," said Frank Johnson, President of the host club, the Alapaha Long Bowmen. His and the other clubs belong to the Georgia Bowhunters Association. The GBA binds the clubs together and sponsored the contest.

"Each target has an outlined kill area. A contestant can fire three arrows, however, the first arrow to hit the animal counts." He went on to say if the first arrow strikes home in the kill area, that's 20 points; if it hits the animal anywhere, like the leg, it is in a wound area and worth 16 points. The second arrow hitting counts somewhat lower with a kill racking up 14 points, a wound 10 points. If two arrows miss and the third

one is in there, score 8 points for a kill, 4 points for a wound.

Ted Borg, our photographer, and I asked the first group to start their safari if we could follow along through part of the course. No, they didn't mind.

First we came upon a mountain lion glaring at us some 40 yards off. Thunk, thunk . . . thunk. One dead mountain lion. Next a hyena scampering through high grass, and then a zebra partly screened by tree branches. The morning was punctuated with the sound of arrows whacking cardboard. It's a clean sound, like the sound of an axe biting wood on a quiet day.

We followed the course on to the next target. A whitetail deer. The archers smiled, knowingly. The first shooter stepped up. Thunk. "Oh, that's a beauty, it's in there!" After each archer had a try they talked about the distance to the target. Billy Riner of Vidalia said, "I said to myself it was 45 yards, then I saw Ben was shooting low, so I judged 47 yards." Billy paced it. It was 44 yards.

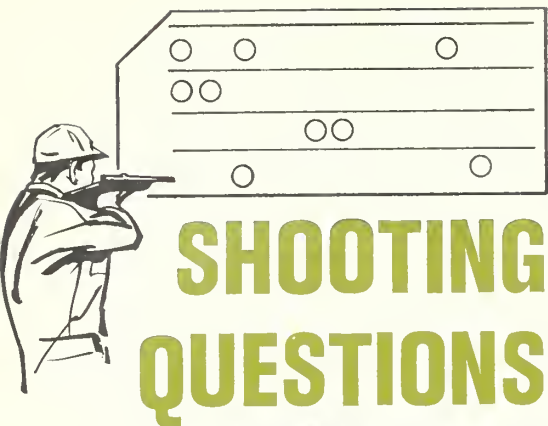
On to a monkey, a fox, a raccoon. Then a lion, another deer, and then a bear.

About halfway through the course Ted and I stayed at one station and talked to other groups coming through. Some archers got tired, their shots got wild. Someone lost all his arrows and had to drop out. Many arrows were lost in the thick underbrush. And the cardboard animals took their toll of arrows. When pulling arrows out of the targets, many tips came loose, and arrows can be broken in the pulling.

When all the contestants completed the course, scores were tallied. Billy Riner of Vidalia won with a score of 488 points out of a possible 560. The lady archer champ was Joyce Mann of Conyers. She scored 244 out of the possible 560 points.

What is it that draws archers to gatherings like this? Practice for hunting season, competition, to be with other archers to "talk shop," an excuse to go somewhere, to show off one's equipment and ability with a bow, tell past hunting stories, talk about the coming season, or just a chance to belong to something?

Any way you put it, the tournament was a success. Just ask the men joined together by a slender shaft of wood. ☺



SHOOTING QUESTIONS HUNTING ANSWERS

By Dean Wohlgemuth

■ How many man days were spent hunting quail in Georgia last year? How many doves were shot in the second half of the season? What was the percentage of success for deer hunters? What is the most popular game in the State?

When the Georgia Game and Fish Commission needs to know answers to these questions while setting next year's hunting regulations, the man with the information will be Charlie Marshall.

Charlie is the man who does data analysis work for the Commission. A game biologist the rest of the year, Charlie is spending quite a bit of time this winter getting the answers.

It takes a while to gather it all in. To start with, names of about five per cent of Georgia's hunters were selected at random. Using a system of selection based on the last two numbers of the

hunting licenses and combination fishing-and-hunting licenses issued by the Commission this year, one hunter in 20 was put on a mailing list to receive a questionnaire.

Immediately after the season closes, about the first of March, every selected hunter will receive his questionnaire. He'll be asked such questions as: Did you hunt quail (during 1967-68 season)? On how many days? What was your total kill?

These same questions will be repeated in regards to rabbits, ducks, deer and doves, and other species.

Actually, the questionnaire is very simple. And it takes only a few minutes to fill in the answers. But these answers are invaluable to the State Game and Fish Commission and ultimately to the hunter and all persons who provide his equipment, food, lodging, etc.

Using this five per cent sample, a good cross section is obtained of what all hunters did during the season. The answers are projected—that is basically multiplied by 20—to tell the Commission how many hunted each species, how many days and what the total kill was for the state.

Then this information is used to help determine the season length and dates, bag limits and other important regulations.

Of course, there are a few problems in all this, even though it sounds rather simple. "One of my biggest problems," said Charlie, "is that we get the name and address of the hunter from the carbon copy made when the license is purchased. Frequently, the carbon is not clear. This year we again had many licenses on which we couldn't read the name and address. Consequently, we couldn't send questionnaires to these hunters, and therefore didn't get a full

five per cent sample. We hope that since this problem has been brought to light, the license agents will make every effort to provide names and addresses which can be read from the carbon copy. After all, in the long run, the license agent probably will ultimately benefit more from this information than anyone else."

At any rate, there will be some 10,000 questionnaires in the mails to Georgia hunters. Many won't be answered. Perhaps the questionnaire will be mislaid or the hunter simply forgets. Or maybe he doesn't realize the value his answers have for the Commission.

But even if he forgets, Charlie Marshall doesn't. He'll send another questionnaire to the man after two weeks. And two more weeks later, he'll send another. Of course, it would save the Commission time, money and effort if the hunter would answer the first questionnaire promptly.

After the questionnaires are returned a secretary codes the information and then punches this onto cards which are put into a sorting machine. The sorting machine can then find the answers to any questions Charlie may want, in a matter of minutes.

"If we wanted to, for example," said Charlie, "we could find out how many hunters in Georgia with blue eyes weigh 160 pounds or more. In other words we can quickly withdraw any information that has been punched onto these cards. We can tell you the number of days spent hunting squirrels by the average hunter. We can tell you how many he bags per day, on the average. Then we know just how good squirrel hunting was, how many were harvested, and whether we need to suggest either tighter or more lax regulations on squirrel hunting next year."

By comparing this year's harvest of game with that of previous years, Marshall can also notice trends in game populations. He will have figures to back up theories. The Commission recognizes for example, that quail hunting is diminishing because there are more and more acres of Georgia land growing pine trees, thus providing less quail habitat. These figures will show just how much decrease in quail production there has been over a period of years.

"We keep our finger on the pulse of Georgia's game resources through this program," Charlie summed it up. "And by knowing what is going on, we can determine what we must do to maintain the best hunting possible in the state."

Each hunter who receives a questionnaire can do an important part, then, in assuring better hunting for years to come, simply by sparing the Commission a few moments with a pencil to fill out his questionnaire as accurately as possible. 🐾

SUMMARY OF HUNTING

Species	(1962-63)	(1963-64)	(1964-65)	(1965-66)
	(Thousands)			
SQUIRRELS:				
% Licensed Hunters	52%	51%	50%	48%
Hunters	131	136	144	143
Man-days	875	924	937	991
Kill	1,593	1,733	1,664	1,726
QUAIL:				
% Licensed Hunters	53%	47%	47%	42%
Hunters	135	127	135	124
Man-days	1,234	1,158	1,174	901
Kill	4,058	3,365	3,387	2,821
DEER:				
% Licensed Hunters	34%	39%	39%	40%
Hunters	86	104	113	119
Man-days	442	620	637	748
Kill	13	21	21	25
RABBIT:				
% Licensed Hunters	46%	45%	40%	40%
Hunters	116	120	115	118
Man-days	896	852	785	790
Kill	1,457	1,364	1,169	1,176
MOURNING DOVE: Early Season				
% Licensed Hunters	—	31%	33%	31%
Hunters	—	82	95	93
Man-days	—	360	464	394
Kill	—	1,500	2,294	2,048
MOURNING DOVE: Late Season				
% Licensed Hunters	—	23%	23%	23%
Hunters	—	62	67	69
Man-days	—	275	321	305
Kill	—	1,229	1,527	1,392
Total Resident Hunters	252,427	267,489	286,654	296,375



SHOOT OUT ON THE RANGE

Below: Competitive target shooting has a bigger foothold in Georgia than most people know about, like the Peachtree Winter Smallbore League match sponsored by the Smyrna Gun Club at Lockheed's Marietta range.

Bottom: Punching out pinwheels at 50 feet, J. E. Burgess of Decatur hits the bullseye seen through the spotting telescope on the left. Smallbore rifle shooting is one of the most inexpensive types of competitive shooting, but there are few ranges in Georgia.



by Jim Morrison

■ Unknown to most Georgians, competitive target shooting is a flourishing Peach State sport, especially on college campuses, where almost half a dozen Georgia schools field regular rifle teams that compete all over the Southeast with rival college teams.

Throughout Georgia, there are a number of high school rifle teams, some sponsored through ROTC programs, the others by civic or fraternal organizations.

Not to be forgotten are the matches sponsored by Georgia's gun clubs, like the annual .22 rifle Winter Peachtree Smallbore League, sponsored by the Smyrna Gun Club on the Lockheed indoor range every winter.

These men enjoy competition with each other and themselves. They know and respect their guns, and treat them with extra caution on the firing range.

Unfortunately, few Georgia youngsters or adults, especially in the metropolitan areas, will ever have a chance to learn shooting on a well-supervised rifle or pistol range.

Except for a few private clubs and schools, how many such ranges do you know of where you could take your wife, son, or daughter to learn to shoot, either for their own enjoyment or protection?

In America, more people shoot than play golf or bowl, yet many municipalities and counties spend thousands of dollars on expensive golf courses, while private industry builds hundreds of bowling alleys. DeKalb County is one of the few metropolitan areas with its own rifle, pistol, and skeet range. Other city and county governments could build such facilities now, at much less than what their future costs will be in the face of rising land values.

Why not? —



Grady Watkins of Ellijay caught this 15 pound largemouth bass out of Lake Lanier to win the Georgia fishing contest for 1967.

any way you look at it, it was a record-bustin' year for Georgia fishermen. As a matter of fact, Georgia's state records were broken ten different times in 1967 for ten different freshwater species.

An outstanding crop of monster fish? Well, they're not bad in anybody's book. Several of them will undoubtedly stand for years to come. Others may fall short.

But there are two less spectacular reasons for the onslaught of record-

breakers. For one thing, there were no previously listed records at all for seven of the ten species: black crappie, bluegill bream, flathead catfish, Flint River smallmouth bass, northern smallmouth bass, freshwater-run striped bass, redeye bass, carp, and brook trout.

For another thing, there were only 39 entries in this year's fishing contest and certificate program, which included 25 species. There were no entries at all in ten categories: spotted bass, bowfin, channel catfish, white crappie, longnose gar, muskellunge, channel catfish, chain

A RECORD BUSTER!

(PARDON OUR ENGLISH)
by Jim Morrison



The largest known black crappie ever caught in Georgia was landed last year by eight year old Ken Kirkland of Jonesboro. Ken lives on Lake Jodeco, where he caught the four pound, three ounce fish using a minnow over a brush pile. No white crappie were entered in the contest.



The largest fish in the six prize categories of the fishing contest was the monstrous 18 pound, three ounce German brown trout caught by William Mercer Lowery of Marietta in Rock Creek on the Blue Ridge Management Area. Lowery's controversial fish broke the old state record of 12 pounds, eight ounces.



Only catfish entered in the contest was caught by Mrs. Joan Philyaw of Marietta. The 15 pound, four ounce flathead catfish landed on a minnow in Lake Lanoka was declared a new state record.



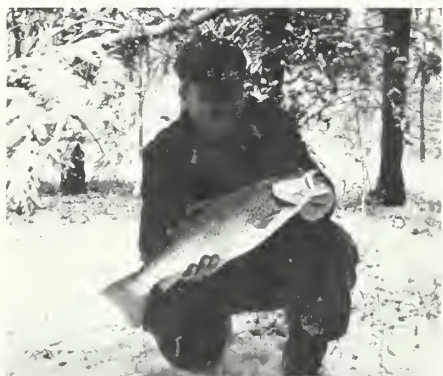
C. E. Morris of Appling caught the new state record shellcracker, a two and three-quarter pound whopper, from a private pond. Asked if he "stuffed" the fish, Morris replies, "Yep, below my belt." Three of the six contest winning fish were eaten.

A new Georgia record for smallmouth bass was set in 1967 by Jack Wadkins of Atlanta with this five pound, 14 ounce fish, caught in Lake Chatuge on a handtied popper.





The new state record Flint River smallmouth bass weighing six pounds and 15 ounces (right) was landed below the Blackshear Dam by James Lewis of Cordale, along with an eight pound, 13 ounce largemouth, on the left.



H. T. Davis of Toccoa didn't make a picture of his prize-winning four pound, five ounce white bass caught out of Lake Hartwell on a shyster. He gave the fish away to be eaten, to the astonishment of his friends. Davis did make a picture of this five pound brown trout that he caught out of the Tugalo River!



Albert Hicks of Atlanta caught the state record carp in 1967, a 35 pound, six ounce lunker, fishing in Sweetwater Creek with a doughball. Hicks also caught the second largest Flint River smallmouth bass in 1967, a five and a half pounder, landed below the dam.

pickerel, sauger, redbreast sunfish, and yellow perch. The only existing state records listed in these ten categories are for spotted bass, muskellunge, and chain pickerel. Any fish entered in the other seven categories, regardless of size, would have been a state record! (At least, until some more aggressive angler got busy and started sending in his catches!)

There really isn't any good reason that a good official list of big fish for Georgia hasn't been kept by someone in the past, but there's little need in crying over spilled milk. Now, with the coming of *Game and Fish Magazine* and the annual fishing contest it is sponsoring with the Georgia Sportsmen's Federation, a dedicated effort is being made to keep records, give certificates for qualifying fish in all categories, and award prizes to the largest fish each in the bass, white bass, crappie, bream, trout, and catfish categories.

The most interest in the first year of the contest was shown in the largemouth bass category, with eleven entries, all over the 10 pounds minimum established for a master angler's certificate. In second place were six bluegill bream entries for 1967, followed by four white bass, three Flint River smallmouth, two river-run striped bass, two black crap-



Jay Tipton of Dial hit the jackpot on the opening day of trout season last year, catching the state record brook trout, left, a two pound, one ounce, and a four pound brown trout, fishing in the Toccoa River with a Mepps spinner.



The new state record Coosa (Redeye) bass was caught in the Jacks River near Dalton by John R. Cockburn Jr. on worms. The fish weighed two pounds and 10 ounces.

pie, two shellcrackers (redear sunfish) and two rainbow trout. There was one entry each in the northern smallmouth, redeye bass, carp, flathead catfish, brook trout, brown trout, and walleye categories.

Although it wasn't a state record, the largest largemouth bass entered in the contest and apparently the largest known bass caught in Georgia last year, an even 15 pounder landed in Lake Lanier on the 25th of March by Grady Watkins of Ellijay.

Grady landed his big bass from a boat in Balus Creek, using a black and white coachdog pattern Hellbender deep diving plug, with an Ambassador 5000 reel and a medium action Temper rod.

Did he fight? "Good gosh, yes," Grady exclaimed. "There's sure enough some big ones in Lanier. Somebody catch a world's record there someday," Grady predicts.

Strictly an artificial lure fisherman, Grady landed a ten pounder in Lake Lanier two weeks earlier. He was quoted as telling his fishing companions at the time, "If I catch a fifteen pounder, have him mounted." It didn't take long. The big lunker is now on display at Grady's Watkins Auto Parts store on the corner of the street of Ellijay.

Twenty-two pounds and four ounces is the Georgia and the world's record for largemouth bass.

The biggest white bass taken during 1967 fell below the previous state record of four pounds and 14 ounces, but still weighed a whopping four pounds and five ounces. The scrapper was caught by H. T. Davis of Toccoa, who won a rod and reel from the fishing contest at the Westinghouse Plant where he works in Toccoa.

Fortunately, the fish was weighed and measured before meeting the fate of Georgia's two world's record fish, of which were immediately eaten.

"I gave it to a colored fellow in town and he ate it," Davis said. "I gave the boys down at the plant really just a joke about that, and I didn't even take a photograph of it, let alone have it mounted."

Davis says he expects Hartwell to produce a world's record white bass. He says he has caught several white bass over three pounds, wading from the bank in the area between the old covered bridge and the U.S. 123 bridge.

Davis' fish was landed on a Shimano but he also uses small home-made lures and small Rapala's. He used a Mepps 300 reel and a True Temper rod. He has caught seven white bass the same size, all over two and a half pounds in weight.

"And I've got a son in Korea who takes Georgia *Game and Fish Magazine*. He'll be thrilled to see his name in it!"

a year round fisherman, Davis admits that he prefers trout fishing. He's had of a five pound brown he caught and photographed) last year out of the also River.

the largest crappie caught in Georgia last year set a new state record, both size and for the age of the fisherman. Eight-year-old Ken Kirkland of Esboro landed the four pound, three ounce black crappie in Lake Jodeco, 10-acre private lake where his home is located in metropolitan Atlanta. Ken was fishing in a brush pile, using a small now for bait.

he was fishing in the boat with his brother, Sam, who landed the fish by using a finger in its gill.

E. Morris of Appling caught the state record shellcracker bream, a 12-pound, 12-ounce whopper, fishing in a private pond near his home, using a wiggler on a No. 6 hook. The fish was originally entered in the contest as a bluegill, but fish biologists ruled it actually was a shellcracker. Probably the most controversial fish in the contest was the 18 pound, three ounce German brown trout caught in Little Creek by Bill Lowery of Marietta. The fish was already pretty good size when it was stocked in the stream from a nearby federal fish hatchery the preceding fall, before being caught the same day the managed stream on the Ridge Game Management Area was opened last year.

Lowery still had a tremendous tussle with the bruiser trout, taking more than 10 minutes to subdue the 28½ inch fish using a night crawler worm on six foot test spinning line.

The previous Georgia record was 12 pounds, eight ounces.

The ladies made clean sweep of the trout competition. The only entry was a tremendous 15 pound, 4 ounce flathead catfish caught by Mrs. Joan Philbrick of Marietta in Lake Allatoona. There were no channel catfish entered.

The rules for this year's contest remained virtually the same as last year. Application was rejected because a fisherman caught the fish in Florida. All others were turned down when they were "mouth" or "spotted" bass turned out to really be "small" largemouths!

There was even one saltwater fish entered in the listings, a three pound, one ounce pompano caught by David Egan in McQueen's Inlet off Saint Andrew's Island. At present, no saltwater categories have been set up, but plans to that effect are underway, if a suitable co-sponsor can be found for a saltwater contest.

In the meantime, the main problem was to be getting fishermen to hold their fish for supper, until they entered them in the contest! 🐟

1967 FISHING CONTEST ENTRIES

STATE RECORDS IN BOLD FACE

BASS, FLINT RIVER SMALLMOUTH

WEIGHT	WHERE	WHEN	FISHERMAN
6 lbs. 15 ozs.	Flint River below Crisp Co. Power Dam	2/20/67	Lewis, James
5 lbs. 8 ozs.	Flint River	4/15/67	Hicks, Albert B., Sr.
5 lbs. 5 ozs.	Flint River	10/22/67	Morgan, W. D.

BASS, LARGEMOUTH

WEIGHT	WHERE	WHEN	FISHERMAN
15 lbs. 0 ozs.	Lake Lanier	3/25/67	Watkins, Grady
14 lbs. 0 ozs.	Whittaker's Pond	4/28/67	Wynn, James R.
13 lbs. 10 ozs.	Borings' Pond, Valdosta, Ga.	3/27/67	Holtzclaw, Garnett
13 lbs. 4 ozs.	Lake Lanier	4/1/67	Lentz, William Dudley
12 lbs. 4 ozs.	Callaway Gardens	10/14/67	Frailey, James M., Jr.
12 lbs. 4 ozs.	Private Lake	3/19/67	Walthall, Frank, III
12 lbs. 2 ozs.	Lacy's Dixie Land Lake	9/1/67	Pelham, Margaret L.
12 lbs. 1 ozs.	Willis White's Lake	3/25/67	Anderson, C. W.
11 lbs. 14 ozs.	Sutton Lake	5/5/67	Lewis, Robert A.
10 lbs. 8 ozs.	Lake Seminole	6/16/67	Barber, David C.
10 lbs. 6 ozs.	Farm Pond, Newton County	3/5/67	Greer, Fred W.

BASS, SMALLMOUTH

WEIGHT	WHERE	WHEN	FISHERMAN
5 lbs. 14 ozs.	Lake Chatuge	9/29/67	Wadkins, Jack W.

BASS, STRIPED

WEIGHT	WHERE	WHEN	FISHERMAN
63 lbs.	Oconee River	5/30/67	Ward, Kelly A.
34 lbs.	Oconee River	4/30/67	Blackmon, Charles L.

BASS, REDEYE (COOSA)

WEIGHT	WHERE	WHEN	FISHERMAN
2 lbs. 10 ozs.	Jacks River	7/4/67	Cockburn, John R., Jr.

BASS, WHITE

WEIGHT	WHERE	WHEN	FISHERMAN
4 lbs. 5 ozs.	Lake Hartwell	2/6/67	Davis, H. T.
3 lbs. 12 ozs.	Lake Lanier	4/1/67	Cochran, Mrs. Julian
3 lbs. 12 ozs.	Lake Lanier	3/3/67	King, Ernest Lee
3 lbs. 10 ozs.	Lake Lanier	3/25/67	Freeman, Garnett

BLUEGILL

WEIGHT	WHERE	WHEN	FISHERMAN
2 lbs. 2 ozs.	Crowder Lake	5/12/67	Hudgins, Romeo
2 lbs. 0 ozs.	Martin's Pond	5/3/67	Breland, T. H.
2 lbs. 0 ozs.	Private Pond	5/30/67	Seda, Mrs. Billie Ruth
1 lbs. 13 ozs.	Private Lake	5/10/67	Gardner, W. S.
1 lbs. 10 ozs.	Crowder Lake	5/11/67	Hudgins, Romeo

Certificates Issued for Previous Years:

2 lbs. 8 ozs.	Altamaha River	9/29/64	Berry, Lee
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CARP

WEIGHT	WHERE	WHEN	FISHERMAN
35 lbs. 6 ozs.	Sweetwater Creek	4/17/67	Hicks, Albert B., Sr.

CATFISH, FLATHEAD

WEIGHT	WHERE	WHEN	FISHERMAN
15 lbs. 4 ozs.	Lake Allatoona	6/27/67	Philyaw, Joan

CRAPPIE, BLACK

WEIGHT	WHERE	WHEN	FISHERMAN
4 lbs. 3 ozs.	Lake Jodeco	4/30/67	Kirkland, Kenneth M.
3 lbs. 0 ozs.	Lake Allatoona	3/27/67	Winn, E. T.

SUNFISH, REDEAR (SHELLCRACKER)

WEIGHT	WHERE	WHEN	FISHERMAN
2 lbs. 12 ozs.	Private Pond	5/2/67	Morris, C. E.
2 lbs. 4 ozs.	Private Lake, Fulton Co.	7/9/67	Wages, Morgan A.
2 lbs. 0 ozs.	Carlton's Lake	5/10/67	Rollins, Hardie
Certificates Issued for Previous Years:			
2 lbs. 5 ozs.	Lacy Pond, Tennille, Ga.	1/12/65	Pelham, William E.

TROUT, BROOK

WEIGHT	WHERE	WHEN	FISHERMAN
2 lbs. 1 oz.	Toccoa River	4/1/67	Tipton, Jay

TROUT, BROWN

WEIGHT	WHERE	WHEN	FISHERMAN
18 lbs. 3 ozs.	Rock Creek	5/6/67	Lowery, William M.

Certificates Issued for Previous Years:

4 lbs. 8 ozs.	Coopers Creek	Summer—1966	Cameron, Bill
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TROUT, RAINBOW

WEIGHT	WHERE	WHEN	FISHERMAN
6 lbs. 4 ozs.	Chattahoochee River	10/8/67	Wadkins, Jack W.
5 lbs. 1 oz.	Anderson Creek	4/18/67	Frisbee, John R.

WALLEYE

WEIGHT	WHERE	WHEN	FISHERMAN
5 lbs. 12 ozs.	Lake Lanier	7/18/67	McDonald, Rucker

NO ENTRIES: Spotted Bass, Bowfin, Channel Catfish, White Crappie, Longnose Gar, Muskellunge, Pickerel (Jackfish), Sauger, Redbreast Sunfish, Yellow Perch.

Minimum Weight for Certificate	State Records	World's Record
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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 Dunahoo, Gainesville, Lake Lanier, Dec. 19, 1965	
5 lbs.	BASS, SMALLMOUTH 5 lbs. 14 ozs., Jack W. Wadkins, Atlanta, Lake Chatuge, Sept. 29, 1967	11 lbs. 15 ozs.
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.
1 1/2 lbs.	BLUEGILL 2 lbs. 8 ozs.—Lee Berry, Milledgeville, Altamaha River, Sept. 29, 1965	4 lbs. 12 ozs.
8 lbs.	BOWFIN No Official State Record	No Record
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 15 lbs. 4 ozs.—Joan Philyaw, Marietta, Lake Allatoona, June 27, 1967	
3 lbs.	CRAPPIE, BLACK 4 lbs. 3 ozs., Kenneth Matthew Kirkland, Jonesboro, Lake Jodeco, April 30, 1967	5 lbs.
3 lbs.	CRAPPIE, WHITE No Official State Record	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., Hoberville, Feb., 1961, World's Record	Same
4 lbs.	SAUGER No Official State Record	8 lbs. 5 ozs.
1 1/2 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, 1967	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. 3 1/2 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, prizes 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.

Entries made after December 31 will be entered in next year's contest. A list of prizes will be announced at a later date, but 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



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 _____

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 all 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 _____, 1967

(Signature of a qualified officer—See Rule 2)

Send all entries to: Georgia Game & Fish Magazine, 401 State Capitol, Atlanta, Georgia 30334

Outdoor World

A Busy Day

was a busy day around the State ol. rly in the morning, Governor Les- faddox swore in veteran Game and Commissioners Judge Harley Lang- of Valdosta (l.) and Beverly Lang- of Calhoun (c.) to new seven-year on the Commission, represent-



ing the eighth and seventh congressional districts. Both men's previous seven year terms expired at the first of the year.

Judge Langdale has served as chairman of the Commission for the past two years, and Mr. Langford is a former chairman of the Commission.

Later in the day, Judge Langdale announced that he was stepping down as chairman of the Commission, even

though he will remain as the commissioner from the eighth congressional district.

Then, the Commission unanimously elected commissioner Rankin Smith of Atlanta (r.) as the new chairman for the next year. Smith is best known as the owner of the Atlanta Falcons, and is a vice-president of the Life of Georgia Insurance Company.

Langdale and Smith held a joint press conference after the regular Commission meeting.



Wildlife Week Urges Conservation Education

The Georgia Sportsmen's Federation, as state sponsor, will stress the urgent need for conservation education during National Wildlife Week 1968, March 19-23. Conservation organizations across the state will join with citizen and youth groups to launch the theme, "Learn to Live with Nature," which will continue to be promoted throughout the remainder of the year.

"Conservation education should be a part of each school program, as well as a community project for adults. People young and old should learn that they can help fight water and air pollution, litter, and waste," said Henry Lee, State Chairman for National Wildlife Week.

The Wildlife Week observance was first proclaimed by President Roosevelt in 1938. It is sponsored statewide by Georgia Sportsmen's Federation in cooperation with the National Wildlife Federation.

Persons and organizations interested in cooperating with the Georgia Sportsmen's Federation in the National Wildlife Week effort are invited to contact Henry Lee, 1066 North Jamestown Road, Decatur, Georgia.



Don't Overlook the Georgia Coast!

Game and Fish Commission Director George T. Bagby ever had any about how good fishing is on the Georgia coast, they were wiped out expedition early in December off Saint Simons Island.

ing yellow Mann's stingray plastic with a leadheaded hook, Bagby, d from left) and his wife Ruth, d from right) took 201 saltwater n less than four and a half hours ing.

er members of the party, includ- n Whittle of Brunswick, left, and S. O. Sutton of Atlanta, right, luster Sutton, Bob Lowell, and ones, center, landed 69 channel and 20 young drum, using dead for bait.

a few days earlier, Bagby had hree freezing days of the Thanks- g holidays fishing at his cabin on t inhatchee River in Florida, where his family failed to catch more turee trout on the entire trip.

ked if he's sold on the Georgia ow, Bagby says, "I'm convinced."



Sportsmen Speak...



Reaction: Dogged To Death (continued)

The time has long passed to cease all talking on this subject and to propose some positive legislative action. In my opinion, it should be the duty, through its Director, of the State Game and Fish Department to initiate the necessary steps outlining possible legislation in this area. I am confident many members of the Game and Fish Committee would be more than willing to sponsor such legislation.

I urge you at your earliest convenience to propose legislation incorporating those ideas you have espoused in this article to eradicate now and forever the problem of wild dogs.

Again I reiterate the time has come for action; the State Game and Fish Commission should provide this needed thrust with a sound law and facts and figures to establish its need.

If I may be of service to you please let me know. Trusting you will respond to this plea, I am,

Walt Davis,
State Representative
Lithonia, Georgia

We are impressed by your most significant article DOGGED TO DEATH. We would like to reprint in our Outdoor WEST VIRGINIA with proper credit. In this request we would like to have the black-and-white photos you used.

Many, many thanks.

Ed Johnson, Editor
Outdoor WEST VIRGINIA
State Department of
Natural Resources
Charleston, West Virginia

The January issue of Georgia *Game and Fish* should not have had the cover picture it had. My 5½ year old son does not need to be informed of the deer-dog problem in this way, yet.

Relative to the proposed gun legislation, I feel very strongly about more effective punishment of those who accidentally or purposely threaten or commit acts of violence with guns. I feel that any curbing of gun availability will deprive the law-abiding of protection against the criminal or unethical. I would like to see frequent good articles in Georgia *Game and Fish* on this subject.

Julian R. Beckwith, III
Athens, Georgia

If your son watches TV, he's probably seen more people killed than deer.

As you may know, we are having a similar fight with free-running dogs and fox hunters. Your article, "Dogged to Death," is a tremendous piece of writing.

With your permission I would like to use a portion of your story in conjunction

with our education program, and of course we will give your department credit.

Our Director would like twelve additional copies of the January 1968 edition of *Game and Fish*.

Jay Kaffka
Information Officer
Arkansas Game &
Fish Commission
Little Rock, Arkansas

The Louisiana Wild Life and Fisheries Commission, like most of the other fish and game agencies of the Southeast, has become extremely concerned over the problem of free ranging dogs and their effect on the deer herds of the state.

Your commission is one of a few in the Southeast United States that has apparently made considerable progress in dealing with this matter. Your staff should be commended for a series of fine articles written on the subject during the past two or three years.

In a recent questionnaire survey your commission indicated that studies to determine the long range effect of dog activity on deer reproductive success, dispersal etc. might soon be initiated. In your most recent article, "Dogged to Death", in the January Georgia *Game and Fish*, reference was made to a recent six month study conducted by Buford Withrow on Russell Lake Game Management Area, which was most interesting.

We would sincerely appreciate a copy of job completion reports, work plans, individual study results or similar material from which we could tell "how it was or is being done and what was or is expected to be found."

Your kind interest and consideration on this matter will be deeply appreciated.

Jerry W. Farrar
Deer Study Leader
Louisiana Wild Life
and Fisheries
Commission
New Orleans, La.

I have been delighted with your magazine and think you are performing a real service for the State. I do feel that a serious error was made in your cover picture, January, 1968, and the picture on page 1 in not mentioning the fact that these were pictures of stuffed animals. I recognize how difficult it would be to get a good picture of a dog killing a deer. The impact of the pictures would have been the same but I am afraid the credibility of other pictures will be reduced by not making the simple statement that these were mounted animals. Incidentally, congratulations should be extended to the taxidermist.

Hampton Rowland, Jr.
Camp Springs, Maryland

The mounted animals on the cover of the January, '68 issue have been seen by thousands of Georgians as a part of the State Game and Fish Commission's exhibit at the Southeastern Fair, Georgia Mountains Fair, and many other exhibits. They are the talented work of Joe Hurt, formerly the curator of the State Museum

who is now director of exhibits at DeKalb County's new Fernbank Science Center.

A grouse mounted by Mr. Hurt appeared on the February, '67 cover of *Game and Fish*, and pictures of mounted animals are occasionally inside the magazine. In no such case a claim been made that the photographs are of actual live animals.

I extend to you my enthusiastic report for your views stated in the January issue of "Georgia Game and Fish" relating to dogs and deer. I am totally opposed to running deer with any wild or "collared". I have been hurt by deer from a tree stand for eight years and this method of hunting has served to cement my suspicions about how it affects deer. I have observed hundreds of deer these past years and have killed 100 bucks—all legal, of course. From a point of concealment, I have observed just what a pursued, weary deer is like. I believe I could "convert" 50% of the shotgun-deer hunters by letting them get a close look at the enlarged, frothy-mouthed, side-heaving behavior of a group of beautiful does frightened fawns that are being chased by something as base as most deer hunters and by getting them to take a good look at kill records of the tree stand method of hunting. Any person with a threefold sensitivity would reject deer dogging; they could have their nose held to the ground to smell the signs to which we are subjected.

Incidentally, I have conducted an informal study of hunter success in DeKalb County, S. C., and I have found in my five years of keeping records of the tree stand method and from many conversations with the numerous local doggers" the following ratios of 1 hour afield: (1) The tree stand method yields 1 buck for each 4 to 5 hours hunting, (2) and the dog boys have reported an expenditure of at least 35 hours per deer. I underscore deer because they readily admit to not being choosy about sex.

However, there is a ray of light in the past eight years we have had from one active deer killing rifle to a dozen or more. In 1960 there was a box of "caukered" '06 cartridge for sale locally, and these had been on the shelf since 1735! Now a sportsman can choose from among 13 different deer fire calibers in one local hardware store. This is positive progress.

Another aspect of this business has impressed me since I have been "associating" with these deer in the Savannah River Swamp border areas. The vulnerability too, and almost stupid confusion when approached with a mounted spotlight. I frequently "show" segments of our deer herd to visitors at our plantation, and it never ceases to amaze me how close one can get to the animals. I understand much better now how callous night hunters can seriously damage a herd.

Thank you for your common sense, stand, and the *Game and Fish Magazine*.

J. Owens Smith
Allendale, South Carolina

Sportsman's Calendar

SEASONS OPENING THIS MONTH

Wild Turkey — March 18 through April 8 in Camden, Charlton, Chattoahchee, Columbia, Lincoln, Marion, Ogeechee, Muscogee, Pierce, Stewart, Wilcox, Warren, Wilkes and those portions of Clinch and Echols counties lying north of U.S. 441 and south of Ga. 94. Bag limit, one turkey gobbler per season.

Management area wild turkey hunts — March 25 through March 30 in the Clinch and Bullard Creek Management Areas. Bag limit one turkey gobbler. Permits, \$2 per day, must be obtained at the checking station before hunting. No dogs allowed. Camping will be allowed.

SEASONS OPENING NEXT MONTH

Trout—"Open" trout streams, April 1 through Oct. 15. Creel limit eight per

day. Possession limit eight. (Management streams will open May 2 and 3. A complete listing of trout management stream dates and regulations will be published in a later edition.)

Wild Turkey—April 15 through April 27 in Banks, Chattooga, Dawson, Fanning, Franklin, Floyd, Gilmer, Gordon, Habersham, Lumpkin, Murray, Rabun, Stephens, Towns, Union, Walker, White and Whitfield counties. Bag limit one turkey gobbler per season.

Management area wild turkey hunts—April 15 through April 20 in Blue Ridge, Warwoman and Johns Mountain management areas. Bag limit one turkey gobbler. Permits, \$2 per day, must be obtained at the checking station before hunting. No dogs allowed. Camping will be allowed.

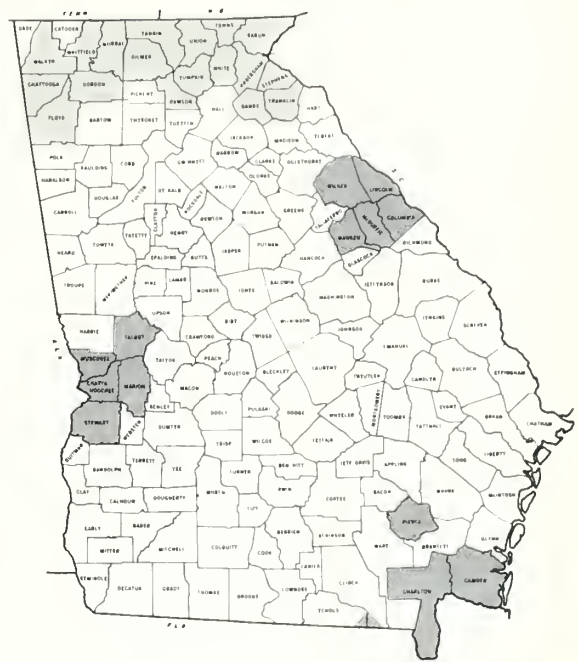
EVENTS THIS MONTH

Georgia Bowhunters Association State Indoor Championship — Stegman Hall, University of Georgia, Athens, Georgia. March 17, 9:00 a.m. Registration beginning at 7:00 a.m.

COMING EVENTS

GBA State Field Championship — Troup County Archery Range, LaGrange, Georgia. August 3-4, 1968.

Spring Turkey Season



MARCH 1968

	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1. Fri.	9:30	6.8	9:42	6.9	3:24	3:48
2. Sat.	10:06	6.5	10:18	6.8	4:06	4:24
3. Sun.	10:42	6.2	10:54	6.6	4:42	5:00
4. Mon.	11:12	5.8	11:36	6.4	5:18	5:36
5. Tues.	11:54	5.5			6:00	6:18
6. Wed.	12:18	6.3	12:36	5.3	6:54	7:06
7. Thurs.	1:12	6.1	1:30	5.1	7:48	8:06
8. Fri.	2:06	6.1	2:30	5.0	8:54	9:06
9. Sat.	3:06	6.1	3:36	5.1	9:54	10:06
10. Sun.	4:12	6.3	4:42	5.5	10:48	11:00
11. Mon.	5:12	6.7	5:42	6.0	11:36	11:54
12. Tues.	6:00	7.0	6:30	6.6		12:24
13. Wed.	6:48	7.4	7:12	7.2	12:42	1:06
14. Thurs.	7:30	7.6	7:54	7.6	1:30	1:54
15. Fri.	8:18	7.7	8:36	7.9	2:18	2:36
16. Sat.	9:00	7.6	9:24	8.0	3:06	3:18
17. Sun.	9:42	7.3	10:12	7.9	3:54	4:00
18. Mon.	10:30	6.9	11:06	7.6	4:42	4:48
19. Tues.	11:24	6.5			5:36	5:42
20. Wed.	12:06	7.2	12:24	6.0	6:36	6:42
21. Thurs.	1:12	6.9	1:30	5.7	7:42	7:54
22. Fri.	2:24	6.6	2:48	5.6	8:54	9:12
23. Sat.	3:42	6.6	4:06	5.8	10:00	10:18
24. Sun.	4:54	6.7	5:12	6.1	11:00	11:18
25. Mon.	5:54	6.9	6:06	6.6	11:54	
26. Tues.	6:36	7.1	6:54	7.0	12:12	12:36
27. Wed.	7:18	7.1	7:30	7.2	1:00	1:18
28. Thurs.	7:54	7.1	8:06	7.4	1:42	2:00
29. Fri.	8:24	6.9	8:36	7.4	2:24	2:36
30. Sat.	8:54	6.7	9:06	7.3	3:00	3:12
31. Sun.	9:30	6.4	9:42	7.2	3:36	3:42

TIDE TABLE

MAR.-APR. 1968

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).....	0	57
Hilton Head, S. C.....	0	10
Thunderbolt.....	0	20
Isle of Hope.....	0	40
Warsaw Sound.....	0	00
Ossabaw Sound.....	0	05
Vernon Vlew.....	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
MARCH	7	14	21	28
APRIL	6	13	19	27

APRIL 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1. Mon.	10:00	6.1	10:18	7.0	4:12	4:18
2. Tues.	10:30	5.8	10:54	6.8	4:48	4:54
3. Wed.	11:12	5.5	11:36	6.6	5:30	5:36
4. Thurs.			12:00	5.3	6:12	6:24
5. Fri.	12:30	6.4	12:54	5.2	7:12	7:24
6. Sat.	1:24	6.3	1:54	5.3	8:12	8:30
7. Sun.	2:30	6.3	3:00	5.5	9:12	9:36
8. Mon.	3:30	6.4	4:12	6.0	10:12	10:36
9. Tues.	4:36	6.7	5:06	6.6	11:00	11:24
10. Wed.	5:30	7.1	6:00	7.3	11:48	
11. Thurs.	6:18	7.4	6:48	7.9	12:18	12:36
12. Fri.	7:06	7.6	7:30	8.4	1:06	1:18
13. Sat.	7:54	7.7	8:18	8.6	2:00	2:06
14. Sun.	8:36	7.6	9:06	8.6	2:48	2:54
15. Mon.	9:24	7.3	9:54	8.3	3:36	3:42
16. Tues.	10:18	6.8	10:54	7.9	4:30	4:30
17. Wed.	11:12	6.4	11:54	7.4	5:24	5:30
18. Thurs.			12:18	6.0	6:24	6:30
19. Fri.	1:00	7.0	1:24	5.8	7:30	7:42
20. Sat.	2:12	6.7	2:42	5.9	8:36	9:00
21. Sun.	3:24	6.5	3:54	6.1	9:42	10:00
22. Mon.	4:30	6.6	4:54	6.5	10:36	11:00
23. Tues.	5:24	6.6	5:42	6.9	11:18	11:48
24. Wed.	6:12	6.7	6:20	7.2		12:06
25. Thurs.	6:48	6.7	7:00	7.5	12:30	12:42
26. Fri.	7:24	6.7	7:36	7.6	1:12	1:24
27. Sat.	7:54	6.5	8:06	7.6	1:54	2:00
28. Sun.	8:24	6.4	8:36	7.5	2:30	2:36
29. Mon.	8:54	6.1	9:12	7.4	3:06	3:12
30. Tues.	9:24	5.9	9:42	7.2	3:42	3:48

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

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GEORGIA

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GAME & FISH



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GEORGIA GAME & FISH

April 1968

Volume III

Number 4



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation.

Contents

Tiny Tarpon	Jim Morrison	1
Shorten The Long Road	Dean Wohlgenuth	6
Trout Time	Marvin Tye	8
Wildlife: How Valuable?	David Almand	10
What's Hatching? Wait and See	Dean Wohlgenuth	14
Outdoor World	Staff	13
Sportsmen Speak	Readers	16
Sportsman's Calendar		17

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Poachers Spring

It's spring again—the time of year when the sap rises in the trees, and in poachers, the thieves of the outdoors.

It won't be long now. Honest fishermen by the thousands will be out on Georgia lakes and streams—along with a handful of game law violators.

Somewhere, a moral fisherman will catch his limit of fish and have a good time doing it. Somewhere, perhaps beside that fisherman, someone will catch more than his limit of eight trout, stealing someone else's fish, if not for this year perhaps his next year's catch.

Somewhere, a so-called "sportsman" will fish with worms for bait in the artificial lure portion of the Chattahoochee River below Lake Lanier. Some night, another will use flashlight and a dip net on the Tallulah River.

Somewhere, a netter will string his evil instrument of destruction across a small stream where spawning fish are migrating upstream, blocking their reproduction. Perhaps he will be able to keep a new fish just stocked in the lake from successfully reproducing, like white bass in Lake Jackson where rangers seized 13 nets on tributary stream in one single week one spring.

Perhaps he will build a monstrous trap like the one shown above confiscated by Chief Steve Bush of Dawson and his men designed to entirely block off a small creek and capture all of the game fish in it.

Perhaps he will shoot a bass on the bed that won't bite with his .22 rifle, or snatch a catfish from under the barrel with his hands.

Maybe he'll have fun doing it, and laugh and brag a little about "how I fooled the game warden." And maybe, his friends'll think it's funny.

Would you laugh at a man who stole something from you? Would you just watch him steal it, and never say a word?

If you would, then you can't really call yourself a sportsman either. You're an accomplice, willing or not. If you allow it to happen, you are as guilty as the violator morally, if not in actual legal fact.

Maybe you don't approve of what you see going on, but still don't do anything about it. Maybe six months later you happen to run into the wildlife ranger, so you give him the devil about letting such things go on.

(continued on page 6)

ON THE COVERS: Spring is the lure that brings a million Georgia fishermen outside again, from one end of Georgia to the other. There is no combination like that of sky, water, and land to make a winter weary fisherman's blood run again. On the front cover, Stone Mountain Memorial State Park. On the back cover, the majestic Altamaha River, near Jesup, Ga. Photos by Ted Borg.

PHOTO CREDITS: Bill Baab t.3; Ted Borg 12,14; Jim Morrison i.f.c., 1,b.3,4,5,7.

Georgia's Shad Fishing Hot Spot

■ "Cast upstream as far as you can, and let the current carry your line downstream," Bill Baab said. "If he's on, you'll feel him when the line comes tight."

Sure enough! Just as my line ended a giant semi-circular sweep in the swift waters of the Savannah, I felt the fish tightening my line against the current.

"Don't set the hook!" Bill cautioned me. "He's on now. He's got a tender mouth, so don't horse him. Just keep a steady pressure on him and don't let your line go slack."

I still couldn't tell how big the fish was on my light spinning tackle, but I was impressed by the dogged fight he was putting up. Suddenly, a bright silver form leaped from the water and landed on its back.

"Hold him!" Bill yelled. Miraculously, the fish was still pulling the end of the line. Finally, after two more jumps and several minutes of steady pressure alternated by reeling, I led the fish up beside the boat. That's when he decided to see what the other side of the boat looked like. Surprised, I dipped my rod tip deep into the water.

"Hold him," Bill laughed. "What's the matter, Jim, doesn't he want to come in the boat?"

After several figure eights under the boat, my reluctant quarry finally lay exhausted on its side on the top of the water, and Bill swiftly slid the landing net underneath it and swung it aboard.

I had just caught my first shad, and discovered one of the hottest spots for shad fishing in the eastern United States—the Savannah Bluff Lock and Dam on the Savannah River just 13 miles south of Augusta, Ga.

To an old shad fisherman, my catch probably doesn't sound like much of an accomplishment, but to me, it was the successful conclusion to three years of frustrated pursuit of the mysterious had—the tiny tarpon.

When I first started work for the Game and Fish Commission in 1963, like the average Georgia fisherman, I had never heard of the shad. Before long, my curiosity began to be whetted by occasional reports of fabulous shad fishing in the coastal rivers, according to a few sportsmen and wildlife rangers in the area that I had talked to.

That was when the fiascos began.

My first great assault on the shad was a dilly one that I still cringe about when the memory of it somehow slips into my unconscious memory. Looking back with considerable chagrin, I can't really be sure what act of insanity caused me to invite the chief photographer of the *Atlanta Journal*, Marion Johnson, and the then farm editor, Harold Joiner, to accompany me on a shad fishing trip on the coast.

Desperately looking for help, I telephoned the fish biologist who lived

closest to the coastal river section, pleading for help. Since he is no longer with the Commission (but not because of my shad fishing trip!), I won't mention his name, since I was the main culprit.

My biologist friend confessed that he was a freshwater man who knew about as much about saltwater shad as I did, but that he'd be glad to put us in contact with somebody who did, and set up a good trip for us to get a feature story with pictures of Georgia's fabulous shad fishing.

TINY TARPON

by Jim Morrison



Confession is good for the soul, so I may as well admit that the trip was a flop. To begin with, it rained for two out of three days, was freezing cold the entire time, and it was too early for shad, at least on a hook and line. And my helper and I didn't know that shad just aren't caught in the Altamaha River on a hook and line, although commercial net fishing and so-called "sport" netting is a big thing there.

We did spend a memorable afternoon on the Altamaha with Herman Yeomans, the rib-tickling proprietor of Paradise Park fish camp at Jesup. Herman proved that shad can at least be caught in a drift net on the Altamaha, and he showed us the right way to clean and cook shad, shad roe, and even the male counterpart of roe!

The next day, we froze to death on a wild ride down the Altamaha with wildlife ranger Dan Shuptrine of Jesup,

watching the unbelievable sight of commercial fishermen actually breaking the ice off of their nets as they removed shad with their bare fingers, while we shivered with our thick coats, hoods, and gloves. There isn't any question in my mind that those hardy shad fishermen are a lot tougher than I am.

Hearing that shad were commonly caught on rod and reel in the clearer Ogeechee River to the North near Savannah, we rushed off to Richmond Hill, Ga., only to listen to the continuous beat of raindrops on our motel roof for another entire day. Finally, the rain broke enough for a sally out to Fulton Love's fish camp on the Ogeechee at the U.S. 17 bridge, where we found out that we were almost exactly a month too early to catch the shad trolling! "Come back in March or April," we were told.

For one reason or another, we never did. Harold wrote up a story for the *Journal* anyway about the rugged commercial net fishermen, backed by Marion's photos. In desperation to get a picture of sport fishing for shad, we finally borrowed some fish that were caught in a net and tied them onto a hook!

Bloody but unbowed, as the saying goes, I was determined to get even with the Ogeechee River shad. A year later, I again ventured to the Ogeechee. This time, I came in March, supposedly the peak month, this time with Leon Kirkland, the fisheries chief of the Game and Fish Commission, and wildlife ranger Robert Hart of Statesboro. Like myself, Leon had yet to catch a shad on a rod and reel, although he had caught many in nets while working with the U.S. Bureau of Commercial Fisheries as a biologist. As a longtime resident of the Bulloch County section, Robert was familiar with trolling for shad in the Ogeechee. We couldn't miss.

That was when the rain began.

If there is anything more frustrating than driving 300 miles to go fishing and then sitting in a motel listening to it rain cats and dogs outside all day, I don't know what it is, and don't really want to know.

In desperation, we finally decided to get the boat together, buy lures, gasoline, etc. and drive down to the landing in the lower part of the county and launch the boat, hopefully awaiting the rain to stop. I can't recall now if the motor wouldn't start or if we left our gasoline tank, hose, or something behind, but somehow, we begged or borrowed the necessary items.

The thing that I do remember vividly is sitting in the truck on the bank of the beautiful Ogeechee, watching the raindrops splashing vigorously on the surface of the water without a pause while the river slowly rose in its bank, already several feet high. Finally, we left in

disgust, ending another year's pursuit of the shad in defeat.

The next year, I had given up on the 'Geehee, when my friend Bill Baab, the outdoor editor of the *Augusta Chronicle*, called me up with an invitation to fish for shad in the Savannah at Augusta, of all places. That was the first time I had ever heard of shad fishing there, let alone that it was the best shad hole in Georgia.

But after two trips in the last two years, I'm convinced. The drought was broken, and in a big way!

By this time, you're probably wondering just what a shad is anyway, and what's so great about discovering a place where anybody can catch them. There's plenty of discussion possible on both points.

To begin with, the white or American shad is an "anadromous" fish, a fancy word that simply means that it lives in saltwater most of its life, but goes up freshwater streams in the spring to spawn, laying from one quarter to half a million eggs. The young fish return to saltwater in the fall after spending several months in the river. The striped bass is a better known fish with the same spawning habit.

American shad make a spawning run up all of the major rivers flowing into the Atlantic from the St. John's in Florida to the St. Lawrence in Canada, and have been stocked into all of the major Pacific rivers from Southern California to Alaska.

Shad are caught on both coasts by commercial fishermen in tremendous numbers, and shad are prized in the northern markets, especially New York, where early season shad sell for as high as \$2.00 a pound before leveling off from 50 cents to 20 cents a pound later in the season. Shad first start showing up in the St. John's in December and January, but most Georgia catches don't occur until the middle of February through April. By that time, shad are showing up in the northern streams, crowding southern shad off the market because of higher transportation costs.

In the north, especially Connecticut, Massachusetts, and New York, the shad is a prized sport fish, and thousands of rod and reel anglers go after it every spring. But strangely enough, in Georgia the shad isn't very well known as a sport fish. Few fishermen outside of the coastal area have heard of them, let alone knowing how, where, and when to catch them.

Although there is a shad run up all five of the major Georgia coastal rivers as far as 200 to 300 miles, sport fishing for shad with a rod and reel apparently is limited to only two streams: the Ogeechee, and the Savannah. Shad fishing is never mentioned by sport fishermen on the Saint Marys or the Satilla River. The Altamaha is the largest river

on the Georgia coast and produces the most shad caught in nets, but shad are seldom, if ever, caught there on a hook, even though they run all the way up the Oconee to just below Sinclair Dam at Milledgeville. Once they went all the way to Athens, one of the arguments cited in 1785 for locating the campus of the University of Georgia there, "where fresh shad may be caught daily in the crystal clear waters of the Oconee." But now, the Oconee is a muddy mess, and the shad can't get there.

In the Altamaha, biologists speculate that little sport fishing is done because of the difficulty of catching shad in the extremely large, muddy river. Shad are sight feeders, and reduced visibility apparently is important in catching them on a lure. But the St. Marys and Satilla Rivers aren't nearly as muddy as the Altamaha, or the Savannah.

Undoubtedly, the unpolluted, black-water Ogeechee is the most popular stream in Georgia for shad sport fishing, especially in the area known as King's Ferry, between the U.S. 17 bridge and the mouth of the Canoochee River upstream. Trolling for shad is popular upstream to Statesboro, Millen, and beyond. March and April are the best months for Ogeechee River shad.

On the Savannah, there is some shad trolling in the vicinity of the City of Savannah in the Little River and Middle River forks of the river, but not in the main Front River section, which is highly polluted. Some shad are caught upstream in smaller tributary streams like Briar Creek, but most of the fish continue up the mainstream for 203 miles until they reach the Savannah Bluff Look and Dam, just below Augusta.

Here, the dam creates an impassable barrier to the migration of the fish, causing them to pile up in much greater numbers than occur anywhere in the river downstream. Combined with easy access by bank and boat fishermen, the look and dam creates the best hot spot for shad fishing in Georgia, even though as many pounds of fish may not be removed there as on the Ogeechee, where there is a greater run of shad, but no constricting dam to concentrate the fish.

The best way to describe a shad is to compare it to a miniature tarpon, silvery in appearance with a green cast, with large scales and a hook jaw. Male or buck shad are smaller than the females, usually running from one and a half to three pounds with about two pounds the average size.

In the north, roe shad are commonly caught up to eight pounds in size, with some 12 pounders reported. Sizes that large apparently aren't possible in Georgia, because almost all shad south of North Carolina apparently die after their first spawning run, while northern

shad may live to spawn two or even three times before dying. Since the average age of Georgia shad is four years for bucks and five years for roe, shad don't live long enough to reach larger sizes. Warmer temperatures in southern rivers, combined with the rigours of spawning are usually cited as the reason for the death of southern shad. During the spawning season, the dead or dying weakened fish can be readily seen drifting back downstream after spawning.

On the hook, the shad is a true fighting fish. The buck shad jump the most often but roe shad put up the strongest fight, boring for the bottom with all of their might. But as I found out at the lock and dam, both the buck and the roe put up a good fight. The size of the fish on the end of the line often is surprising when he's in the net, compared to the tremendous struggle he puts up, especially on light spinning tackle or fly tackle.

Probably the greatest thrill I had fishing for the Savannah River shad was when I switched to a fly rod, trolling a small silver spoon and a jig. Within a few minutes, I tied into a large roe shad, and the battle was on!

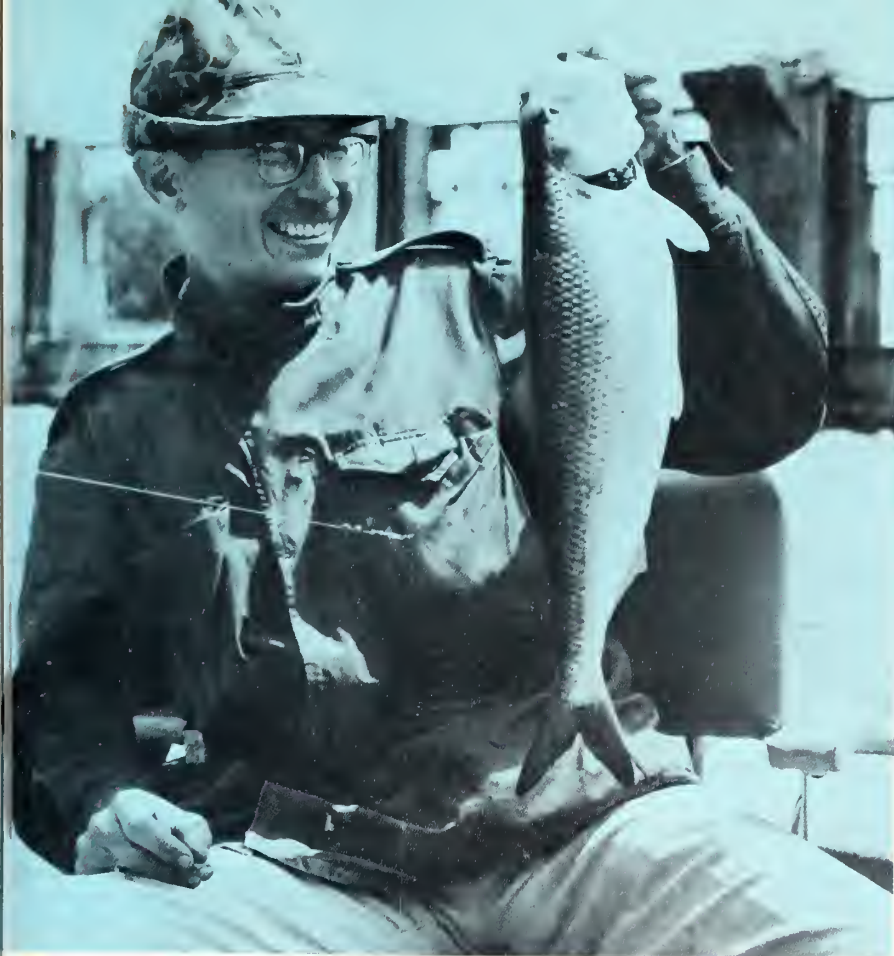
Fifteen minutes later, I still hadn't landed the dogged fighter. On the light tackle, I knew I couldn't force the tender-mouthed shad in too soon, until she was whipped, and that wasn't so easily done. Every time I tried to bring her up beside the boat so Bill could use the net, she bored for the bottom again. All I could do was hang on!

Finally, the exhausted fish came to the surface. My tackle box scales tipped the four pound mark—not an especially large roe shad, but on the fly rod, she was a monster.

I was pretty proud of that fish, until Bill landed a five pound-plus roe on a spinning rod, after a sharp tussle. I've made two trips to the lock and dam now with Bill, two years in a row, and caught fish every time. While I haven't hit the peak times, we've always caught close to our limit of eight shad a piece—which is more than enough fishing for a morning's outing, for fish running from two to five pounds each.

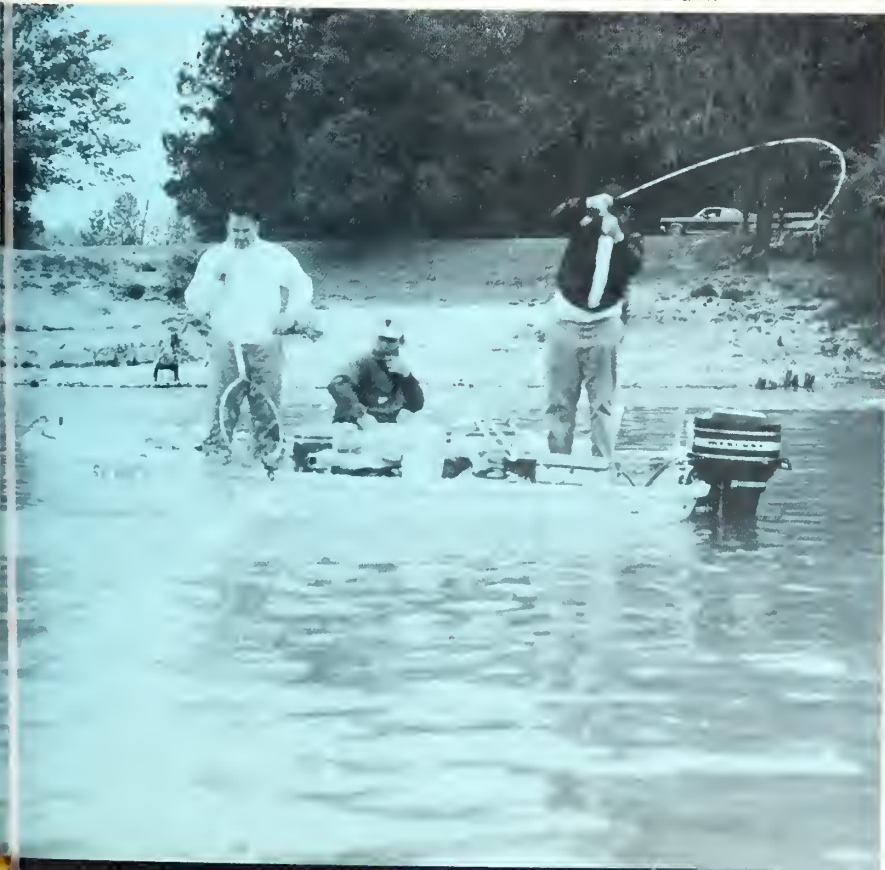
According to Bill, the best times for shad fishing at the dam are in the morning from eight to eleven, and again in the afternoon from four until dusk. The most popular lures are small silver Barracuda spoons, either in the No. 1, or No. 2 sizes, along with small shad jigs. 1/16 ounce or smaller, with a red head and white body and feather. Yellow jigs also work well. I caught my four pounder using a flyrod-sized 1/32 ounce yellow Dollfly jig.

Most of the Augusta fishermen troll both the Barracuda spoon and the shad jig at the same time, using a three-way swivel and two leaders. The spoon is usually put on a leader about four feet



The author and his first saltwater roe shad, caught in the Savannah River near Augusta. The American or white shad is similar in appearance to its big brother, the turpon.

Happy Hill of Augusta has his hands full fighting a five pound shad on a flyrod, caught while trolling below the New Savannah Bluff Lock and Dam.



long, with the jig on the shorter leader, usually about two feet long. If the shad don't hit too well, try changing the length of the leaders, either shorter or longer, to produce better results. Live bait doesn't work. Since none of the shad caught during the spawning run have anything in their stomachs, apparently the fish strike only out of anger or spawning excitement. Thus shiny artificial lures produce the best results.

It's a good idea to use two or three split shot sinkers two or three feet up your line from the three-way swivel.

Most of the Augusta anglers troll in the swift water below the dam back to the launching ramp below Butler creek, but some try casting just below the safety wire stretched across the river below the dam. By the way, Georgia regulations limit you to two poles or rods for shad fishing.

For casting, shorter leaders are a necessity. Cast upstream, then wait for the current to tighten your line. If a shad will hit at all, he'll do it before your line tightens up. Setting the hook isn't necessary. The shad hooks himself through his tender mouth, and horsing him may cause you to lose the fish. Because of the tender mouth, a landing net is a must, if you want to bring the fish into the boat.

Trolling techniques vary, but fish can be caught either trolling upstream, downstream, or cross-current. On some days at certain hours, the fish seem to prefer one technique over the other, for no apparent reason. Similarly, the first year I went to Augusta, we caught shad readily casting in the swift water as close to the dam as we could get. The next year, only trolling produced results.

by automobile, located 13 miles south of Augusta near Bush Municipal Air Field, a landing strip for commercial and private airplanes. If you aren't familiar with Augusta, take U.S. 78 and 278 into Augusta, then turn right on to Georgia 56 LP until you see the "Lock & Dam" sign of the Corps of Engineers on the left. For short cuts, get a county map from the State Highway Department.

There is an old concrete launching ramp below the dam on the Georgia side that was constructed about 20 years ago by Richmond County, but the river has silted in the ramp at the lower end, making it unusable during the summer low water months. During the spring shad season, the water is higher on the ramp, normally making it possible to launch even large outboards there with a little extra effort. An earlier ramp was undercut by the river.

Hopefully to be completed by this summer, the Game and Fish Commission plans to cooperate with Richmond County in building a new, longer, wider



Bill Baab, the outdoor editor of the Augusta Chronicle, uses a landing net for the tender-mouthed shad, which can't be "horsed" in. Small Barracuda spoons and shad jigs are the most popular lures.

ramp for the lock and dam, along with a better parking area.

During the shad season beginning in the middle of March and lasting through early July, it's not uncommon to see twenty or thirty boats below the dam. Through the week, especially on Wednesday afternoons, a dozen or more may be out trolling in a line.

Some shad are also caught by bank fishermen, especially along the lock wall or the dam wall, but not as many as are caught from boats. Part of the difficulty is landing the big fish with their tender mouths on light lines, fifteen feet above the water. Many fish, especially shad, are lost off the hook by anglers attempting to "horse" their fish straight up the lock wall. To prevent this, the Corps of Engineers keeps several sturdy metal baskets on the lock wall which can be lowered with a strong line into the water for landing big fish.

In addition to shad, the lock and dam is a good fishing spot for white bass, striped bass, redbreast, shellcrackers, catfish, and gar, all congregated below the dam. Since the lock is seldom operated, except for barges going to the State Docks at Augusta, few fish get upstream past it. The dam was completed in 1937 to provide a nine foot deep barge channel to Augusta from Savannah.

Since the river bed belongs to Georgia, your Georgia fishing license is good anywhere on the river, except for fishing from the South Carolina bank. Since there is no road to the dam from the South Carolina side, most South Carolinians cross over into Georgia at Augusta to come to the dam.

Fishing on the South Carolina bank isn't very pleasant, anyway. Drifting too close to it at one point, Bill and I were covered up with a hungry swarm of mosquitoes and black gnats. As long as we stayed away from the bank in the river, we weren't bothered.

There isn't a marina on the River, but a full line of fishing supplies, bait, groceries, ice, gasoline, etc. is carried by a small bait shop, located on the only access road to the lock and dam, just a few yards away. A small shady picnic area is located adjacent to the dam, with concrete tables, grills, drinking fountains, and toilets.

And now comes a question that I've saved for last, for several reasons. Is the shad good to eat?

The answer is, it's a matter of opinion!

I've already mentioned that the shad is considered a great delicacy in the North especially the shad roe, and that it brings respectable prices there, evidently proving that somebody likes them. I've run into quite a few Georgians who wouldn't agree with them, and some that would!

I've always thought that people who

claim they like to eat 'possums and such critters are just putting on a big bluff, bragging about how delicious they are, and I suspect that it's about the same way with shad eaters. I can't help but suspect that they must improve the taste by liberal doses of "snakebite medicine" administered from a stone jug before the "banquet!"

Thinking back now on the shad and the roe that Herman Yeomans cooked for us, I remember that the fish did have many long bones, but the meat wasn't so bad, not that it was so good either. Ditto on the shad roe, and the sperm sacks, even scrambled with eggs. But I haven't gotten up the enthusiasm to try it since on my own, after one stomach misadventure with blood-shot roe scrambled in eggs! I even kept several Savannah River shad in my freezer for a year, until they got old enough and dried-out enough to throw away! (Several friends have since assured me that I did the right thing!)

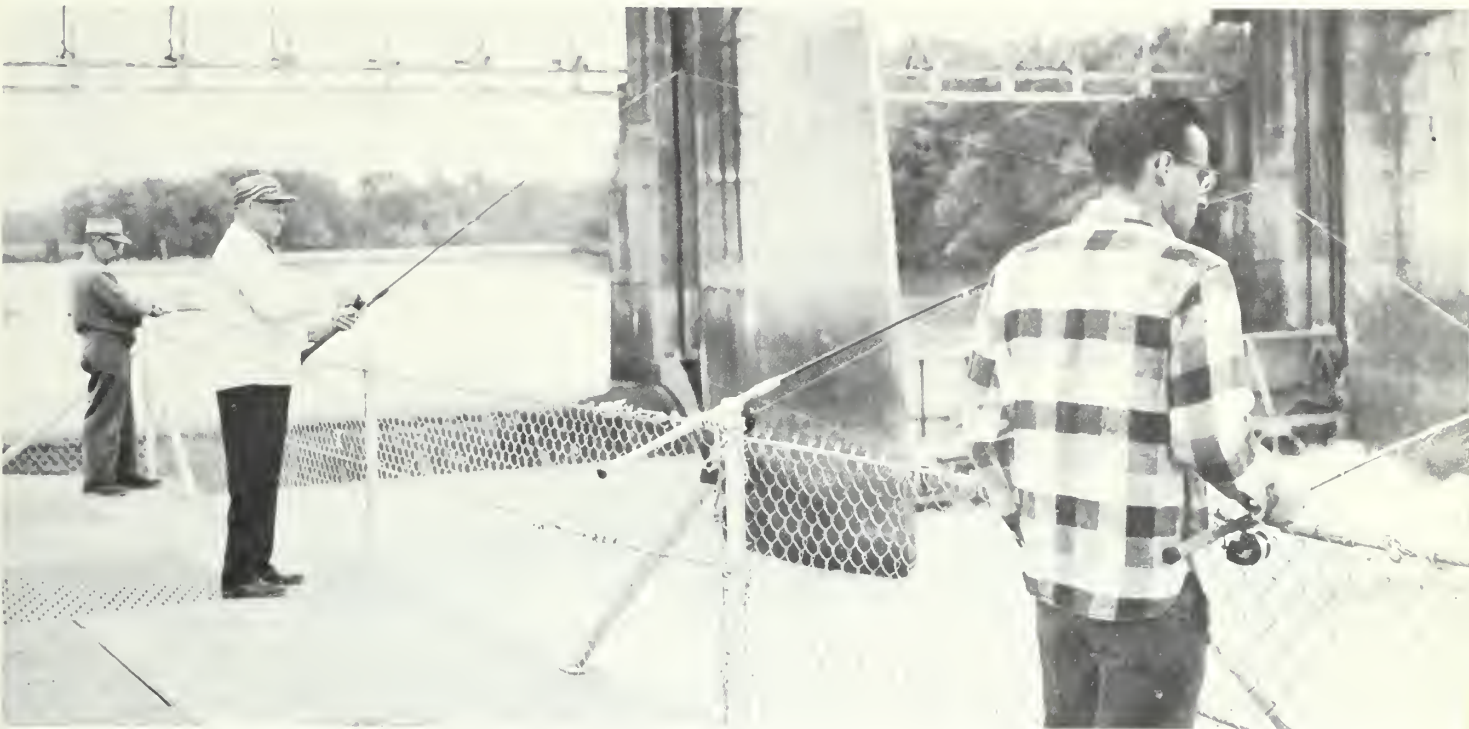
Like one fisherman that I talked to about shad said, leaving out his more descriptive adjectives, "It's an oily—fish with lots of bones and it's no good to eat, but it's—on wheels with a fly rod!"

My suspicions about Yankees and their eating habits are pretty well confirmed by one friend of mine who recalls how his New Jersey neighbors raved about shad that he gave them caught out of the tremendously polluted Hudson River below New York City. "No wonder they think Georgia shad taste so good, compared to those fish!" he laughs. Not going too far out on the limb, he says, "I would compare a shad out of a good clean river like the Ogeechee or the Altamaha to a good clear river carp. In fact, I'd rather eat the carp anytime!"

At this point, all of the self-appointed piscatorial gourmets that I have mentioned shad to go into their routine about how to gash the sides of the fish a quarter inch or so apart before frying, which is supposed to make the bones edible. (They say!) Also, baking is supposedly a good procedure for naturally oily fish like shad. (Reminds me of the story about baking a carp on a board all day, then throwing away the fish and eating the board!)

One thing that is commonly agreed on—shad are easy to clean, for whatever satisfaction that's worth. The big scales fly right off, and gutting's no problem. (But don't burst the egg sacks!)

Oh yes, to be honest, there is some extra stigma attached to Savannah River shad. According to one Commission biologist, there is only one fish house on the coast that will knowingly take Savannah River shad, because of the excessively oily, kerosene taste, apparently caused by the terrible pollution of the Savannah River at its mouth, as well as at Augusta.



The lock wall at New Savannah Bluff is a popular fishing spot for bank fishermen, who frequently catch nice strings of shad, redbreast bream, crappie, and catfish.

"I don't see how they could even get through that mess at Savannah," said one aquatic biologist, pointing out the major pollution of the river from the untreated wastes of two major pulp mills, as well as by the entire sewage of the City of Savannah, from 40 or so assorted industries, and by ships in the harbor.

Fortunately, the outlook for improvement by 1971 is bright. Both of the pulp mills have almost completed multi-million dollar treatment facilities, and the City of Savannah has begun construction on an 11 million dollar sewage treatment plant, using a one million dollar federal grant, combined with a local bond issue and a new sewer tax. Smaller industrial polluters at Savannah are on notice by the State Water Quality Control Board to clean up their pollution as well by 1971.

At Augusta, the picture is similar. At present, Augusta, like Savannah, does not treat any of its sewage wastes, but a new 10 million dollar treatment plant is under construction. Completely untreated raw sewage pollution from North Augusta on the South Carolina side still enters the river above Savannah Bluff, and a new pulp mill is scheduled for construction on the South Carolina side above the dam. Horse Creek, on the South Carolina side below the lock and dam, is completely polluted by textile wastes, with no aquatic life whatsoever. Butler Creek on the Georgia side carries almost all of Augusta's sewage into the river just below the lock and dam, upstream from the boat launching area. Only a few catfish can enter the creek from the river, and they don't go far. Down-

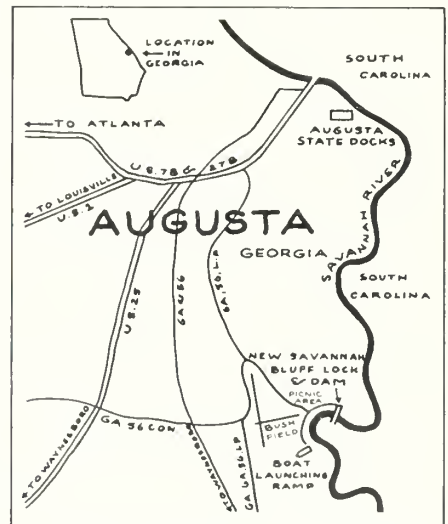
stream, a pulp mill on the Georgia side treats its wastes, but production has been doubled at the plant without increasing the size of the treatment facility.

Fortunately, Georgia does have a strong pollution control law now, that is being effectively enforced by the State Water Quality Control Board. The outlook for a cleaner Savannah River by 1971 all the way from Clark Hill Dam to the Atlantic is good, provided similar action is taken on the South Carolina side of the river. With cleaner water, fishing should be better at Savannah Bluff and in the entire river for shad, striped bass, largemouth bass, bream, crappie, white bass, and catfish. More food will be available, and spawning will be more successful.

But even if shad aren't a tasty fish in everybody's opinion, and even if distasteful pollution takes some of the pleasure out of fishing at the lock and dam now, there still are quite a few shad and other fighting fish to be caught there, and a lot of fun to be had catching them.

Most of the Augusta anglers throw their shad back alive, so they may even catch the same fish several times again. After all, the main reason most people go fishing today is for sport, with food really a secondary reason.

When the shad are really hitting at Savannah Bluff, it's not uncommon to catch your limit of eight in 15 minutes. But, since there's no law against catching all the fish you want to, if you throw them back, you can keep enjoying yourself until your arm wears out. Where else in Georgia can you do that on two to four pound fish, and still not have to clean them? 🐟



New Savannah Bluff Lock & Dam

ShortentheLongRoad

by Dean Wohlgemuth

"Well, I might've gone fishin',
Got to thinkin' it over—
The road to the river
Is a mighty long way"

■ Just about everybody has sung that song sometime or another. It would be hard to find someone that hasn't heard that tune, "It's My Lazy Day."

What the Game and Fish Commission is concerned about is that some folks in Georgia may be singing that song in earnest. It IS a mighty long way for them to go to find some fishing.

But being concerned isn't enough. The Commission and its director, George T. Bagby, wants to DO something about it. First it appears it will be necessary to get some other people concerned enough to do something.

"The Commission wants to build some public fishing lakes in those sections of the state where it is quite a long distance to a major reservoir," Bagby said, "but to do this, the state must have land on which to build the lakes."

Before a site can be accepted by the Commission, according to Bagby and the Commission's Chief of Fisheries, Leon Kirkland, the Commission should

be notified and asked to study the area. The Commission must ascertain whether the site would be suitable for such a project. "For example, while there must be a water source, a lake cannot be built on a large creek, especially one that floods frequently. This would wash out all the fertilizer," Kirkland said.

The Commission cannot build the public fishing area unless it holds title to the land. So if a county will make land available to the Commission, and clear timber off as necessary, the Commission will take it from there and do the rest.

A dam will be built, the lake will be stocked with fish and carefully managed. An area manager will be put in charge of the area. Picnic areas and camping areas will also be added to make the area more attractive and useful to the fishermen.

At present, the Commission has one such area, the McDuffie Public Fishing area in McDuffie County between Dearing and Thompson. This area, which has

been open about three years, has proved highly popular. Another area has been proposed for construction at Thomasville.

Not intended originally for such a purpose, McDuffie was once a fish hatchery. As such, it includes 14 small lakes ranging in size from five to twenty acres, with a total water acreage of 88 acres. This past season more than 10,000 fishermen visited McDuffie. Catches were high. Lakes are stocked with bass, bream and catfish.

Ideally, the Commission would prefer to build just one lake of between 200 and 400 acres.

Any county that does not have sufficient fishing water can obtain a public area easily, but building a public fishing area is not an overnight project. From the drawing board to completion normally requires two years. But even so, the lake is not ready to hang out its shingle and go into business. It takes two more years for the stocked fish to



TOP: The popularity of a public fishing area is demonstrated by the State Game and Fish Commission's McDuffie Area, near Thomson, Ga. But despite the fact that these areas are heavily used, fishing is three times better in them than in the state's large impoundments. Women and children as well as men, youngsters, oldsters, handicapped—everyone finds public fishing areas to their liking.

CENTER: A young angler leads a bass to the shore of one of McDuffie's 14 fishing ponds. These well fertilized lakes are all stocked with bass and bream, and some of the ponds also contain channel catfish.

BOTTOM: What could be better, in the mind of a boy, than taking a nice bass? Many a childhood dream comes true at a public fishing area. It isn't always easy to find a good place for young anglers to wet a line. Public fishing lakes solve the problem.

reach large enough size and numbers to become a fishing lake.

"We're not getting enough applications for public fishing areas," said Bagby. "It's time to be looking forward to the future. We need to act now to produce fishing for the public."

Priority areas, he said, are Southeast Georgia, Northwest Georgia and some of the central portion of the state. These areas will be given priority because of the lack of big reservoirs in those sections.

The areas will be open at a small fee, which will be used to defray management costs. The lakes will be built so that they are readily accessible to children, older persons, women and handicapped persons who couldn't normally fish unless provision was made for them to find easy access to the water. Banks of the lakes will slope gently to aid in access.

"We've found that public lakes carefully managed are capable of supporting

150 fishing trips per acre per year," Kirkland said. "That means a 200-acre lake can stand 30,000 fishing trips per year."

"Because we fertilize public area lakes heavily, we can obtain maximum productions. Such lakes could normally support 300 to 400 pounds of fish per acre, or 60,000 pounds of fish in 200 acres of water," he added. "Catch rates are three times higher in these lakes than in the reservoirs."

Counties can obtain financial aid in securing and clearing land in many cases, Bagby pointed out. Funds are available under certain circumstances through the Land and Water Conservation Act. John Gordon, Director of the State Parks Department, is liaison officer for the U. S. Bureau of Outdoor Recreation for handling applications for such aid.

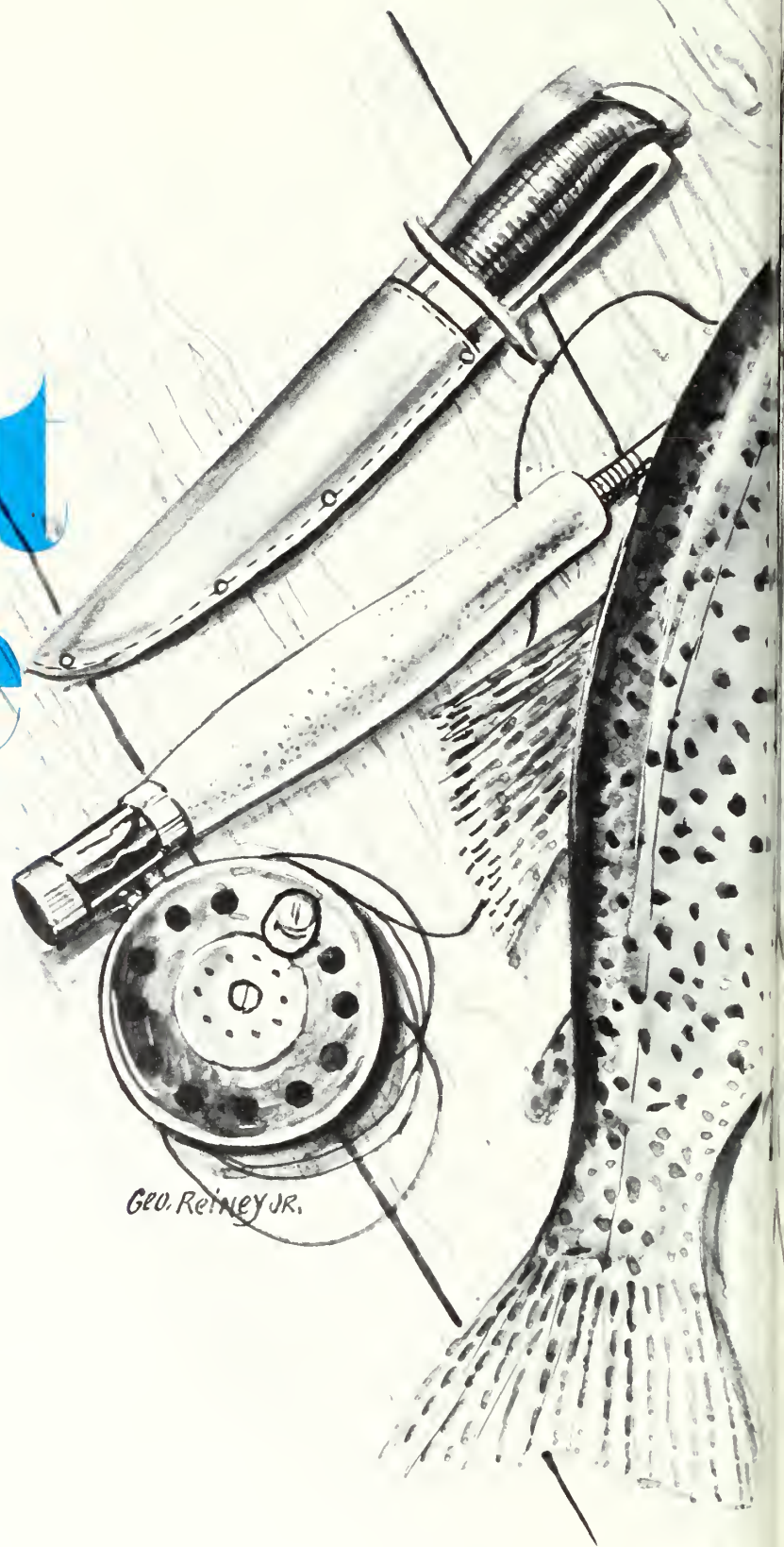
Applications to the Commission for building public areas will be handled on a first come, first served basis. The

Game and Fish Commission also uses matching funds from the Land and Water Conservation Act to build the areas.

In areas where there are only small towns, public fishing areas are more than sufficient to provide fishing for the entire population, Bagby said. "Having such a facility nearby not only enhances increased tourist trade for an area, but is attractive to new industry. Most industries when selecting prospective sites take into consideration what is available in the way of recreation for its employees. And most industries realize that fishing is the most popular form of recreation throughout the nation today," Bagby said.

"Let's hope that those areas in need of good public waters will act promptly and not have to wait in line," Bagby said. Then the road to the old fishing hole won't be too long, even if you are having a lazy day . . . especially if you're having a lazy day! 🐟

trout time



by Marvin Ty

■ It's that time of year again when many Georgia outdoorsmen get that far-away look in their eyes and have a hard time concentrating on their work. Their thoughts are much more likely to turn to clear mountain streams and a rainbow-hued trout rising to a well-cast dry fly.

These fishermen will be able to answer the call to the mountains from April 1 through October 15 on all mountain streams outside wildlife management areas. Management streams will be open on staggered dates between May 1 and Labor Day. The chart accompanying this article shows these dates in detail.

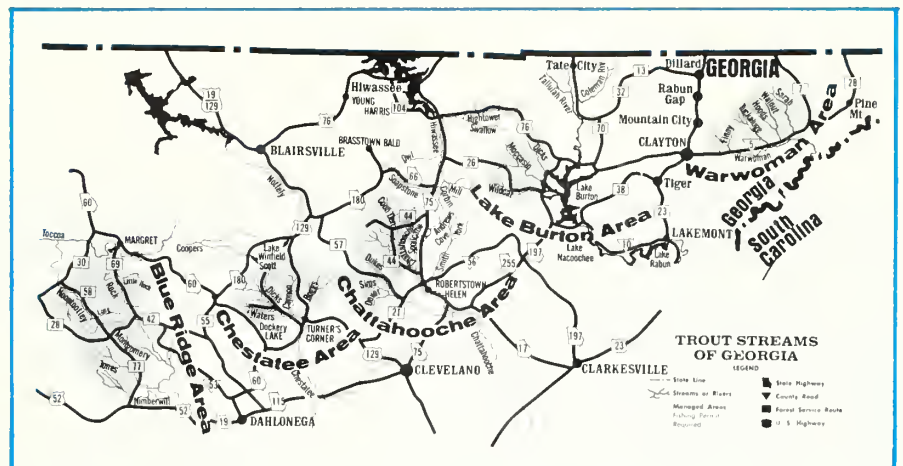
Middle Broad River in the Lake Russell Management Area will be open on Saturday and Sunday from April 1 through October 15 to provide a put-and-take trout stream in that area of the state. There will be no charge for

fishing on Middle Broad River.

Moccasin Creek from the bridge on Ga. 197 downstream to Lake Burton will be open only to children under 16 who are too young to require a license, persons over 65 holding an honorary license, women, and handicapped persons.

This stream, which runs into Lake Burton right behind the Burton Fish Hatchery, is very easily accessible, and it is impossible to keep the stream stocked sufficiently to withstand the pressure of all fishermen. The Game and Fish Commission felt that able-bodied anglers have ample fishing nearby and that it would be far more desirable to open this short stretch of stream only to those limited groups who could not fish streams which are less accessible.

A State Park campground borders on the stream. 🐟



MANAGEMENT STREAM SCHEDULE

Management Area	Stream	May	June	July	August	September
BLUE RIDGE	Jones (Artificial Lures)	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Montgomery	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Nimblewill	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Noontootley (Artificial Lures) (Catch and Release)	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
	Rock Creek	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
CHATAHOOCHEE	Chattahoochee	Sat., Sun.	Sat., Sun. Wed.	Sat., Sun.	Sat., Sun.	(Sun., Mon. Sept. 1 & 2)
CHESTATEE	Dukes	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	
	Boggs	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Dicks	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
LAKE BURTON	Waters	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Dicks	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	
	Moccasin (Not stocked)	Sat., Sun.	Sat., Sun.	Sat., Sun.	Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
	Wildcat	Sat., Sun.	Sat., Sun.	Sat., Sun.	Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
WARWOMAN	Finny	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Sarabs	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Tuckaluge	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Walnut Fork and Hoods Creek	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)

■ Georgia's wildlife resources provide the base for one of our state's greatest industries.

In short, this resource is responsible for approximately 500 million dollars being pumped into our state's economy each year. And, this may be conservative. It's unfortunate that only a few Georgians realize this fact. Most, no doubt, think of wildlife only in terms of what they can get out of it. That is, how many doves, ducks or other game they are able to put in the bag. Or how many fish they are able to put on the stringer.

I submit that it is high time we stop taking this resource for granted. The idea that wildlife (including hunting and fishing) cannot or should not be valued in dollars and cents must be completely rejected. For anyone to argue otherwise simply reveals a misunderstanding of our entire economic organization and structure.

Unfortunately, calculating dollar and cents values for our total wildlife resource is very difficult. The job would be somewhat easier if we were concerned only with the hunting and fishing activities, but these recreational as-

baseball, football, horse racing, etc., rate a poor sixth.

It's a little known fact that hunters and fishermen spend more money each year than would be needed to buy all the football and baseball stadiums, all the professional ball players (Falcons and Braves included), all the automobile speedways, and all the race tracks and race horses. Even at that, there would still be enough left to buy post offices in wholesale quantities.

So that we might have a little better understanding of how this money was spent, we'll take a look at the one billion dollars that hunters alone feed into the nation's economy. First of all, they spend 200 million dollars for firearms and ammunition. Only three other industries—automobile, textile apparel and boating—gross more dollars from the hunter than do these companies. This is understandable because one or two guns can last one or more generations.

Hunters must travel. In this respect they spend 143 million dollars for automobiles; 101 million dollars for gasoline (at 34¢ per gallon, that's roughly 300

Commission and carried out by the U.S. Census Bureau does shed some light on the economic impact of sportsmen. For instance, the survey revealed that about one in 12 Georgians hunted and one in three fished. Together, they spent 100 million dollars annually in Georgia in pursuit of these sports. Today, indications are that this figure is closer to 150 million dollars.

On an individual basis, Georgia hunters average spending \$83.21 per year on about 18 days of hunting. Fishermen spend about the same number of days afield and spend about \$86.84 per year. Nationally, hunters averaged spending \$82.54 for 14 days of hunting while fishermen averaged spending \$103.19 for some 18 days.

To further itemize these expenditures, let's use the money spent by deer hunters as an example. Also, in comparing their average annual expenditures with deer hunter expenditures on a national basis, we see that Georgia deer hunting costs us only about half as much as the national average.

WILDLIFE: HOW VALUABLE?

pects actually represent only a portion of the total value. They do not take into consideration, for example, our commercial fisheries, our fur and fish bait industry, private industry and agency payrolls and budgets, and the expenditures of bird watchers, wildlife photographers and so on. Understandably, to accurately evaluate the total resource becomes an exceedingly complex operation—even to the economist.

Hunting and Sport Fishing

Since hunting and fishing are usually what people think of when we speak of wildlife, we'll approach our discussion of wildlife economics from this angle.

On a national basis, hunters and fishermen pump over four billion dollars into our economy, according to a survey released by the Fish and Wildlife Service, U. S. Department of Interior. While it may come as a surprise, more money is spent by hunters, fishermen and boaters than any other group. For example, more people participate in these activities than any other. For example, golf and bowling are far behind these two groups, such as

million gallons); 2 million dollars for oil; 5.5 million dollars for tires and 3.8 million dollars for maintenance. In 1962 alone, these sportsmen used up 47,800 automobiles and 215,000 tires. And, in addition to this, they spent another 10 million dollars for transportation by air, rail and bus.

About 268 million dollars was spent for wearing apparel. That's a lot of hunting pants, shirts and caps. Also, an additional \$42 million was spent for hunting boots along with 5.6 million dollars more for insurance. As an example, over four million pairs of hunting boots were used in 1962.

In addition to all of this, American hunters spent over 100 thousand dollars for food in restaurants; 30 million dollars for rooms in hotels and motels; and 225 million dollars for boats to use in hunting. Boat expenditures do not include those by fishermen or boaters.

Although hunting and fishing nationally is a four-billion-dollar enterprise, this doesn't tell us what it means to our state. However, a 1960-61 survey sponsored by Georgia's State Game and Fish

Expenditures	National	Georgia
Auxiliary equipment	\$ 9.57	\$ 5.30
Hunting equipment	20.25	11.22
Food and Lodging	8.48	4.70
Transportation	10.84	6.01
Licenses, tags, and permits	5.84	3.24
Guides, etc.	2.35	1.30
Dogs	2.82	1.56
Annual lease and privilege fees	1.47	.81
Hunting preserve fees	.62	.34
Wildland fees	.55	.30
Other	.98	.54
Totals	\$63.77	\$35.34

While we are on the subject of deer hunting, it seems fitting to point out that a number of Georgia counties are missing out on a major industry. For instance, a detailed study of three parishes in Louisiana revealed that deer hunters spent almost \$259,000 during the course of a five-day hunting period. A similar study in Pennsylvania revealed that deer hunting was a million dollar enterprise, while a study in the Edwards Plateau region of Texas indicated that the net return per animal unit exceeded that of livestock! In New Jersey, deer hunters spent over 6 million dollars annually. Each of the legally harvested deer represented about \$736.50. In Georgia each deer harvested contributed approximately \$400 to the economy (25,000 x 400=\$10,000,000!)

Based upon what I consider to be highly conservative figures, deer hunting in the six county area of Jasper, Jones, Monroe, Butts, Putnam and Baldwin amounts to a \$159,000 enterprise by RESIDENTS alone. Considering the fact that these residents account for only about one-fourth of the total deer hunting pressure in those counties, this total figure is much higher. I strongly suspect that the deer resource is responsible for at least a half million dollars being added to this area's economy each season.

Another brief example of the economic impact of sportsmen is provided by dove hunters. Each year, around 96,000 Georgians shoot doves and end up spending over 2 million dollars on shotgun shells alone. This is in addition to gasoline, candy bars, sardines and soda crackers, "bellywashers," and camouflage suits. Quite often the landowner is on the receiving end, too. Hunters are often willing to shell out a few greenbacks in order to bust a few caps at the gray ghosts. This is also another example of the landowner and the hunter mutually benefiting each other.

ation of food is about 1.5 million dollars.

No one would argue that the food from a single quail is worth a dollar on the table. Since the annual harvest is about 3 million, this represents 3 million dollars for food.

Solely from a food standpoint, the meat from one deer represents at least \$75.00 if we had to buy an equal amount of meat at the butcher's. Multiply this by the more than 25,000 killed last year and the value would be about 1.8 million dollars.

Food valuation of these four species alone totals about 8 million dollars. Other species, such as ducks, doves, marsh hens, etc., increase this by another \$2 million.

The food value of fish caught by sport fishermen in our state is also significant and represents at least a million dollars. This is probably conservative, because this means that each fisherman only has to catch a pound or so of fish. At 30¢ per pound, we almost have our million dollars.

Commercial Fishing

Georgia is not particularly noted for

Nonetheless, a surprising amount is shipped out of state to wholesalers and to other people who are interested in growing worms on their own.

Fishermen and bait dealers are not the only ones who benefit from the Georgia bait industry. Manufacturers of paper cups in which worms are packaged for the wholesale and retail market and flower nurseries which use the discarded worm bedding for potting soil are among others noticeably benefited. In addition, the larger operations provide seasonal employment for a number of local residents. Thus, the next time you think of worms, remember, "they're not always for the birds."

Fur

Another important economic aspect of wildlife is the fur business. Sale of raw furs and hides in Georgia total approximately one million dollars each year. Buying and selling furs is a major enterprise for some six fur dealers in our state. Nationally, it's a much larger enterprise.

Of course, the money received from sale of furs is also helpful to the over 400 individuals who hold trapping



Each deer harvested by Georgia hunters is worth approximately \$400 to the economy of the State, for a total value of more than 10 million dollars. 119,000 Georgia deer hunters bagged an estimated 25,000 deer in 1965. The food value alone of Georgia wildlife is estimated at 11 million dollars annually.

Food Value

Food is another important economic contribution of our wildlife resource, particularly our wild game. In fact, a conservative estimate of the economic contribution from Georgia's game and fish species for food is over 1 million dollars annually.

Fortunately, very few people today are dependent upon game as a source of food, but nonetheless, it still is used considerably for this purpose.

Did you ever stop to think that when a hunter brings home a limit of birds or rabbits he has furnished several dollars worth of food for the table? Since rabbits are worth about \$1.50 each from a food standpoint, and since rabbit hunters in our state kill more than one million rabbits each year, food, with a total valuation of about 1.5 million dollars would have been furnished people in practically every community in the state. Furthermore, from purely a food standpoint, a squirrel is worth at least \$1.00 each as a table delicacy. Each year there are over one and a half million squirrels harvested and the valu-

its commercial fishing, but rest assured, we have a sizeable operation. In fact, the average annual haul of shrimp, blue crab, oysters, clams and finfish amounts to around \$4 million dollars each year. I am told by the economists that to obtain the total impact of our coastal fisheries, we can multiply the \$4 million received annually from the sale of raw products by 12. This, then, means that our commercial fisheries operations along the coast represent about a \$48 million industry.

Fish Bait

Production of worms, crickets and minnows is also a big operation in our state. In terms of dollars, it adds about ten million to our economy each year. Granted, this seems unrealistic, but just remember, one out of every three Georgians and one out of every four on a national basis, fish. And, it takes a lot of worms and crickets to keep those hooks baited.

In Georgia, we have around two dozen major producers of fish bait. Most of the bait produced is sold to the public through the hundreds of fish bait dealers scattered about over the state.

licenses. To give you some idea of their catch, information from the 1964 season revealed that over 1,600 beaver, 375 fox, 1,500 minks, 6,700 muskrat, 1,250 opossums, 336 otter, 3,200 raccoons and 200 skunks were caught and sold by trappers. In addition, a number of alligator hides are also sold each year. Unfortunately, many of these hides are collected illegally by poachers.

Another aspect of the fur industry is the commercial production of mink and other fur bearers. Several people are engaged in such operations over the state. This, of course, means money to the feed dealer and others who sell animal food or other equipment to make such operations a success and to the producer from the sale of furs or breeding stock. As is the case with pelts taken from animals trapped in the wild, these furs account for many additional dollars being pumped into the economy as they are processed into finished products.

But of course, the fur business doesn't stop here. The raw products are made into expensive collars, stoles, coats and other products. Everything considered,



Georgia hunters like Bob Burkett of Decatur, left, averaged spending \$83.84 each in 1961 on hunting trips, including guns and ammunition. Eddie Pitts of Dean's Firearms in Atlanta is one of many Georgians who make their living directly or indirectly from wildlife, conservatively estimated to be worth more than 500 million dollars to Georgia alone.

Mike Bodiford of Conley buys his minnows for a day's fishing from Sanders Bait Farm at Lake City. Glenn Sanders, right, is filling the plastic bag with oxygen, guaranteed to keep the minnows alive a minimum of 24 hours. The fish bait industry in Georgia is estimated to be worth more than 10 million dollars.

our million dollar raw fur industry probably means at least \$12 million to the economy each year.

Industry

Professionals, sportsmen and others interested in wildlife also contribute considerably to the employment of thousands of people each year. This aspect cannot be overestimated because it reaches far and wide. For example, industries that provide employment range from manufacturers of automobiles, farming equipment, fish nets, herbicides, animal repellents and poisons, office machines, hunting and fishing equipment, boats, textiles and rat traps to women's perfume (skunk scent is used in some perfumes to give them that lingering effect).

In fact, there are many companies and businesses located in Georgia that manufacture boats, fishing tackle, fish nets, repellents, herbicides and other goods. Many of these probably would not exist were it not for our wildlife resources. Together, they employ several thousand people.

An example of such a business is provided by one of our Georgia manufacturers of fishing lures, Stembbridge Products at College Park. This particular operation turns out about 30,000 plastic "Fliptail" fishing lures, commonly known as "worms," during an eight-hour day. Some 30 people are normally employed, but it fluctuates up to about 60. Plastic worms are not the only line of goods manufactured by this industry, but it is certainly a major part. Incidentally, at the time of this writing, production was lagging seven weeks behind even at 30,000 per day.

There are also those companies that

manufacture, for example, hunting knives, animal repellents or traps, bird feeders and photographic supplies. Who knows how much the sale of this equipment means to us in terms of dollars or how much their employee payrolls affect our economy? I'll venture to say that the total economic impact from all of these industries is well over \$250 million.

Other

Fortunately, man is now beginning to see that wildlife plays a very important part in the complex web of his very existence. In the past, he too often has overlooked or taken for granted the many beneficial and useful activities performed by wildlife. For instance, earthworms and moles distribute tons of soil each year by their activities underground.

Some wildlife species, such as buzzards, crows and opossums perform an important scavenger service. We can hardly appreciate this service unless we are without it.


Also, the protection of human health through the control of disease carriers, such as rats and mosquitoes is an important and useful function performed by wildlife. Frogs and fish consume for food, each year, literally billions upon billions of mosquitoes and their larvae. Hawks, owls, foxes and snakes consume a tremendous number of rats and mice each year for food. In fact, rodents comprise the majority of their diet. For instance, the barn owl, commonly referred to as the "monkey-faced owl," actually catches very few rabbits. Food analysis has proven that it feeds almost 100 per-cent on rats and mice. And, in this respect, I noticed recently where

some one had figured out that one bull snake was worth \$3.75 to the farmer because of its rat-eating habits.

Crop saving, through insect suppression and control of harmful animal life, is an important and useful activity of wildlife. Every day, and especially during the spring, summer and fall, when insect populations are high, birds literally destroy tons upon tons of insects throughout our state and nation. Thus, the agricultural value of hawks, owls and other birdlife cannot be overestimated, and to place a dollar value on this service is practically impossible.

Summary

In this article, I have attempted to point out some of the economic values of wildlife. I realize only too well that some of the figures presented herein can very easily be "shot full of holes" and that my head is lying on the proverbial "chop block." However, only until intensive studies are conducted that deal with the total economic contribution of this resource can we state with confidence what wildlife means to us in terms of dollars and cents.

Even though the economic importance of this vital resource has been stressed here, I feel sure that it is very small when compared with the esthetic values. Few people can argue that the dollar bill can, in any way, compare with the thrill of seeing a whitetail deer bounding gracefully through the woodland, the sound of a clear, ringing "bob-white" on a spring morning or the tug of a fish on the line. God grant the day shall never come when we will be without the sights and sounds of our wildlife. 



the outdoor world

The Dixie Sportsman



VOLUME 1 NO. 1 P.O. Box 100 Sylvania, Georgia

JANUARY 1968



New Outdoor Publication

Georgia outdoorsmen now have a new publication dealing with their favorite sports: hunting, fishing, and outdoor recreation. It is the Dixie Sportsman, a newspaper published each month at Sylvania.

The publication covers outdoor activities in Richmond, Burke, Screven,

Jenkins, Emanuel, Bullock, Candler, Evans, Effingham, and Chatham Counties in detail.

The subscription rate for the paper is \$2.00 per year. Subscriptions or more information can be obtained by writing Robert R. Hollingsworth, Managing Editor, P.O. Box 469, Sylvania, Ga. 30467.

Inside Outdoors Back on Television



"Inside Outdoors," the perennially popular hunting and fishing program hosted by John Martin is back on television again.

Martin's program has been broadcast since the first of the year on WJRJ-TV, Channel 17 in Atlanta, each Thursday night at 9:30 p.m.

The show features numerous guest personalities from the world of hunting and fishing, big fish catches, demonstrations, and films.

Georgians Win National Awards



Ed Dodd

Two Georgians, Ed Dodd and Len Foote, have won two of the top national conservation awards of the National Wildlife Federation, the world's largest private conservation organization.

Dodd, creator of the famous "Mark Trail" comic strip, was named "National Conservationist of the Year," the highest award the organization can give. The Sandy Springs cartoonist, a native of Gainesville, was singled out by the Federation from among 39 state conservationists of the year because of his continuing educational crusade through his comic strip against water and air pollution, destruction of endangered wildlife species, forest fires, and litter.

Len Foote



Foote, the Southeastern Field Representative of the Wildlife Management Institute, was named "National Wildlife Conservationist of the Year." A resident of Marietta, Foote was cited by the Federation for his outstanding work in initiating and coordinating research and management programs on the mourning dove, wildlife diseases, and forest wildlife management on public and private woodlands.

The awards were presented at the Third Annual President's Conservation Achievement Banquet at the National Wildlife Federation's 32nd Annual Meeting at Houston, Texas, March 8-10.

Only 10 major awards are presented by the Federation in different conservation categories each year. Georgia is the first state in the history of the three year old program to have two winners from the same state.

Feature articles and photographs on both Dodd and Foote will appear in future issues of *Georgia Game and Fish*.



WHAT'S HATCHING? WAIT AND SEE!

By Dean Wohlgemuth

*...arrow dams like this one built in
...at the Walton County Fish
...ery, left, can break any time, and
...hatchery pond of water, leaving
...high and dry. New dikes at the
...ssion's Richmond Hill Hatchery,
...will keep the hatchery in top
...tion for many years.*

■ Your Game and Fish Commission is "hatching up" a project that will put more fish on more stringers for Georgia anglers.

And the first "egg" is out of the nest. A complete renovation project of all of the State Game and Fish Commission fish hatcheries is underway, in order that the needs of the state may be filled. But it will likely be 1970 before all the work is done.

Work on this huge task began just about eight months ago, according to Commission Director George T. Bagby.

The first hatchery to get attention was at Richmond Hill near Savannah where eight hatchery ponds have been rebuilt. That job is not completed. Also, dams were re-cored at Dawson to prevent leaking.

Heavy equipment has moved in and work is starting immediately at Walton Hatchery near Covington. This will be the first major revamping of a hatchery, with many more to follow.

All dikes at Walton will be rebuilt, and all dams will be rebuilt and widened. Also, catch basins will be installed at the dams.

"When all the state's hatcheries were built more than 20 years ago, little was known about how hatchery ponds should be built," Bagby said. "Since that time, a great deal has been learned by our fisheries technicians."

All the hatcheries have mud bottom ponds, but concrete catch basins will soon be put on the pond bottoms at all hatcheries.

"When you try to seine the fish from mud bottom ponds you end up getting the fish mingled with mud. Many of them die from suffocation. With the concrete catch basins, we can lower the water before netting the fish," explained Leon Kirkland, chief of fisheries management.

Further, he said, water supplies will be piped in to each pond at the catch basin to prevent stirring mud up into the water. This will help keep fish alive during draining operations.

"All the water supply lines at all hatcheries are old and, therefore, rusty and leaking," Kirkland pointed out, "so

all of these will have to be replaced, too."

From Walton, the Commission will go to Cordele, then to Bowens Mill near Fitzgerald, then back to Richmond Hill to rebuild more ponds there.

While all this work is going on, the Commission must continue to produce fish for farm pond stocking programs. But next year, with some facilities in better condition already, fish can be out in the ponds earlier, in the fall. At present it is necessary to wait until winter.

"Overall efficiency of all hatcheries will be greatly increased by the renovation," Bagby pointed out. "This added efficiency will allow the Commission to produce more fish for management programs in public lakes and streams," he added.

Hatcheries included in the renovation program are those which produce primarily bass, bream and catfish. But in the future, they will be used to raise, in addition to these species, striped bass, smallmouth bass and walleyes.

"Reworking of dams and dikes at the hatcheries is necessary because they were not properly constructed originally," Bagby said. "There was not proper slope and width, and consequently several of the dams have broken, allowing water to escape and rendering them useless. Others are in such poor condition that it is not possible to keep them mowed and maintained properly."

The budget for Fiscal Year 1968 for the Commission includes \$29,375 for work at Summerville Hatchery, \$11,400 was allotted for Burton Hatchery, and \$5,200 was slated for Cordele Hatchery. About \$46,000 is on the year's budget.

Expected budget for Fiscal Year 1969 includes \$37,000 for Bowen Mill, \$28,000 for Cordele and \$19,900 for Richmond Hill. This is a total of nearly \$86,000 for Fiscal Year 69, and brings the two-year total to almost \$131,000.

"It's going to take time and quite a bit of work," Bagby said. But when it is all over, there will be more fish and greater variety for the fishing clan around the state. There'll be a lot more fish hatching at your hatcheries! ☺

*...cains like this one, left, make it
...to catch the fish for removal to
...new permanent home. The water
...muddled during netting operations
...any young fish die of suffocation
...mud. But new concrete catch
...right, make it easy to lower the
...to the basin to capture all of the
...once without harming them.*

*...slopes of the narrow dikes, left,
...at impossible to mow away weeds
...r sh. But a gentler slope wide
...for tractors to drive on in the
...dikes, right, allows easy cleaning of
...dikes.*

Sportsmen Speak...



Dog Trouble

I am writing to tell you that I've enjoyed all the articles you have had in Game and Fish. I'm only 13 years old, but I think it is wrong to have wild dogs around. Out here where I live, it is the same with wild dogs but not as bad. People dump dogs out, starve them, and even beat them.

There used to be a German Police dog around here. He was about three feet high. When I was riding my horse, the dog ran out and started biting and jumping on his back. My horse ran from the dog, but the dog stayed right with him. The horse got so frightened that he ran all the way home with me and my girl friend on him. After the horse stopped, I got off and put him up. The dog had ran off and gone back up the road.

We followed the dog and caught him. We called the dog pound but they would not pick up dogs out of the city limits. So I had to let the dog go.

Soon after that the dog killed a calf and did other damage. The dog went free doing all this and not a person would stop him, because they were afraid that they would get in trouble. I tried to stop him but no one would help me. This went on for a long time until the dog was hit by a car and was killed.

Other dogs around here gang up in packs and have to be destroyed by the farmers. I'm glad to know someone is trying to stop this. It will not only help the people but will help these poor animals.

Nobody will listen to the younger people, but maybe they will listen to you. I hope something can be done about this problem. Keep up the good work and good luck! I have one question. How can I get these people to do something about it?

Thank you,
Debbie Brown
Roswell, Georgia

Why don't you send a copy of the photograph on front of the January Magazine to every newspaper in the state, so the general public will know what is really happening?

I doubt if 5% of the people have even dreamed that this terrible dog problem exists. An educated public will certainly help more than people who don't know anything about it.

Your magazine is an excellent paper. Keep up the good work.

Felton Morgan
Crawford, Georgia

Good story in the January Game & Fish about the dogs—keep up the good work.

Ben Franklin Jr.
Birdsville Plantation
Millen, Ga.

Please do not get me wrong. I think your magazine is the finest of its type and I really look forward to it in the mail each month.

I am writing this letter in regard to the articles on wild dogs you have published in recent issues. I honestly believe the Commission is over doing it a bit. Wild dogs can't take a large enough number of deer to pose a threat to the deer population. You then might ask, how I can make such a statement when the Commission has evidence against the wild dogs. Well, I don't know where you get your facts about wild dogs posing a threat to

Georgia's deer, but here are some of the facts I have about deer, and why I believe dogs pose no threat to the well being of them.

Well, to start off with, many say one of the biggest threats is dogs killing new born deer. It seems man has forgotten that when a fawn is born the mother stays away from it, except at feeding time. For this reason the doe scent is hardly around. Tests have been made and it is a fact that for the first three or four days the young deer is odorless. Dogs have been known to walk downwind of a new born fawn and not notice its presence. In other words, nature has given the helpless young deer its protection.

As for the older deer, they have ways of protecting themselves against dogs. A deer can travel through rough thickets and places at amazing speeds; where the dogs have to crawl. The deer will jump from high banks, jump creek beds and go through terrain the dogs must go around.

Usually the deer taken by wild dogs are the crippled, sick, and diseased deer, and they are actually doing the deer population good to be rid of these which rob the healthier deer of food during the winter months when food is the major issue of a deer's existence.

The main diet of the wild dogs is usually garbage the public has discarded, and small animals such as rabbits, squirrels, and various other animals which are in direct competition with deer for food. In other words, wild dogs probably help the deer population in Georgia more than they destroy it.

I believe there are two sides to every issue. Your magazine has published articles for those who oppose dogs. I only wish your magazine would publish both sides of this issue, and present this in your Game and Fish magazine.

Jimmy Rogers
Marietta, Ga.

It has been found through many years of management of the deer herds in Georgia that only certain portions of the state are suitable for hunting deer with dogs. The rest of the state does not offer a habitat that is suitable for running deer with dogs. The deer are unable to escape the dogs except by finding areas of water that are large enough to throw the dogs off their scent. Deer are what is known as a "hot scented" animal, since they have glands located on their feet. Most all dogs will chase deer, and due to the location of these scent glands, they are easily followed.

We admit that deer are powerful, and they are fast for a short distance; however, their lung capacity and heart capacity are not large enough in comparison with the rest of their body to sustain long, arduous races. For a short distance they are able to out distance dogs. In the end exhaustion is the winner. Deer cannot fly, climb a tree, or go to a den in the ground. Their only escape from dogs is swimming a river or running into a swamp in order to lose their scent in the water.

As far as wild or free running dogs helping the deer population by culling out unhealthy animals, this is a fallacy. Unlike the wolves and mountain lions which once performed this role for deer before the coming of the white man, dogs are not dependent on deer to maintain a high predatory population as wolves and mountain lions were. In other words, in periods of high deer populations, the numbers of predators increased. In years of low deer populations, the numbers of predators was also sharply decreased because of the lower food supply. This is not the case with predatory dogs, who can keep up a high population in lean years by living off garbage dumps or on handouts at the backdoor, an advantage that wolves and mountain lions never had. Thus, dogs are a greater threat to deer, and are more difficult to exterminate.

My name is Ronald Roberts and I think that we should do something about loose wild dogs that kill up about half of our wildlife in our game management areas and most other places that have game on the land. It is a senseless waste to let this brutal tragedy continue. I believe the dogs kill most of the deer at night when it is cool, and then they go back home and sleep in the day time. I believe it would be good to maybe pass a law and maybe pass around leaflets to houses within three to four miles, that if their dogs are not chained or put up in a pen around the game and fish areas, that they will be picked up by dog catchers if caught running out at anytime.

Something has to be done. The dogs kill most of the deer in spring when does are pregnant and can't run. So that would mean two to three deer would be killed with one whack.

Ronald S. Roberts
Augusta, Georgia

Suggestions

Here is the fee for three years of Game & Fish. How about a new feature?

Preparation of some game is difficult and there are different ways to cook the same game. I suggest a feature such as "The Menu of the Month" for game in season at that time.

Charles E. Jackson
East Point, Georgia

Walter F. George?

I sure have enjoyed the Game & Fish Magazine. I wonder why there hasn't been any articles in it about fishing in the Walter F. George Reservoir? This is the best fishing in the southeast, if you don't believe it, come down and I will show you.

J.T. Hurt, Jr.
Eufaula, Alabama

See the March '67 issue, "Color it Fine Fishing" about Walter F. George, a good place to fish.

Hawks and Owls

Congratulations on the continued excellence of "our" magazine. Am a subscriber and my son and I look forward to each issue.

May I suggest a series on protected species—birds and mammals. There does not seem to be sufficient emphasis on what not to shoot (hawk-what kind? Owl? etc.).

Herbert M. Barnum
Rome, Georgia

Poachers Spring / continued

But what about you? Did you do your duty by keeping silent while the deed was going on, then saying nothing about it for six months or longer? Suppose you had reported the violation and his car tag number to the nearest wildlife ranger or sheriff's office while the violation was still going on, instead of that night, the next week, the next month, the next year, or never?

If you stop a man from stealing your wildlife by turning him in, are you dirty squealer?"

If you don't, are you a saint, or sinner?

Think about it. —J.M.

Sportsman's Calendar

SEASONS OPENING THIS MONTH

Wild Turkey — March 18 through April 8 in Camden, Charlton, Chattoah, Columbia, Lincoln, Marion, Oufie, Muscogee, Pierce, Stewart, Telford, Warren, Wilkes and those portions of Clinch and Echols counties lying north of U.S. 441 and south of Ga. 94 Highway. Bag limit, one turkey gobbler per season.

Wild Turkey—April 15 through April 30 in Banks, Chattooga, Dawson, Fannin, Franklin, Floyd, Gilmer, Gordon, Harsham, Lumpkin, Murray, Rabun, Stephens, Towns, Union, Walker, White and Whitfield counties. Bag limit one turkey gobbler per season.

Management area wild turkey hunts—April 15 through April 20 in Blue Ridge, Warwoman and Johns Mountain management areas. Bag limit one turkey gobbler. Permits, \$2 per day, must be obtained at the checking station before hunting. No dogs allowed. Camping will be allowed.

Trout—"Open" trout streams, April 1 through Oct. 15. Creel limit eight per day. Possession limit eight. (Management streams will open May 2 and 3. A complete listing of trout management stream dates and regulations will be published in a later edition.)

Spring Turkey Season

■ MARCH 18 - APRIL 8
■ APRIL 15 - APRIL 27



COMING EVENTS

G B A State Field Championship Troup County Archery Range, LaGrange, Georgia, August 3-4, 1968.

Holding a Meeting?

If your club or organization is holding a meeting, convention, field trial, etc. that the public is invited to, send **Game** and **Fish** the dates, location, and other pertinent information for use on the Sportsmen's Calendar page. All notices must be received at least two months prior to the date of publication from the first of the month to be used in the magazine. The editor reserves the right to determine if a notice is used, depending on space requirements and the subject matter.

In Memoriam

Avery M. Rowell, Nahunta, Ga., Wildlife ranger in Brantley County, died March 19, 1968. Mr. Rowell, who was named Ranger of the Year in 1966 by the Georgia Game and Fish Commission and the Southeastern Game and Fish Commissioners' Law Enforcement Section, was a ranger for 17 years, joining the Commission in December, 1950.

APRIL 1968

	HIGH WATER				LOW WATER			
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.		
Mon.	10:00	6.1	10:18	7.0	4:12	4:18		
Tues.	10:30	5.8	10:54	6.8	4:48	4:54		
Wed.	11:12	5.5	11:36	6.6	5:30	5:36		
Thurs.			12:00	5.3	6:12	6:24		
Fri.	12:30	6.4	12:54	5.2	7:12	7:24		
Sat.	1:24	6.3	1:54	5.3	8:12	8:30		
Sun.	2:30	6.3	3:00	5.5	9:12	9:36		
Mon.	3:30	6.4	4:12	6.0	10:12	10:36		
Tues.	4:36	6.7	5:06	6.6	11:00	11:24		
Wed.	5:30	7.1	6:00	7.3	11:48			
Thurs.	6:18	7.4	6:48	7.9	12:18	12:36		
Fri.	7:06	7.6	7:30	8.4	1:06	1:18		
Sat.	7:54	7.7	8:18	8.6	2:00	2:06		
Sun.	8:36	7.6	9:06	8.6	2:48	2:54		
Mon.	9:24	7.3	9:54	8.3	3:36	3:42		
Tues.	10:18	6.8	10:54	7.9	4:30	4:30		
Wed.	11:12	6.4	11:54	7.4	5:24	5:30		
Thurs.			12:18	6.0	6:24	6:30		
Fri.	1:00	7.0	1:24	5.8	7:30	7:42		
Sat.	2:12	6.7	2:42	5.9	8:36	9:00		
Sun.	3:24	6.5	3:54	6.1	9:42	10:00		
Mon.	4:30	6.6	4:54	6.5	10:36	11:00		
Tues.	5:24	6.6	5:42	6.9	11:18	11:48		
Wed.	6:12	6.7	6:20	7.2		12:06		
Thurs.	6:48	6.7	7:00	7.5	12:30	12:42		
Fri.	7:24	6.7	7:36	7.6	1:12	1:24		
Sat.	7:54	6.5	8:06	7.6	1:54	2:00		
Sun.	8:24	6.4	8:36	7.5	2:30	2:36		
Mon.	8:54	6.1	9:12	7.4	3:06	3:12		
Tues.	9:24	5.9	9:42	7.2	3:42	3:48		

TIDE TABLE

APR.-MAY 1968

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)	0	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Warsaw Sound	0	00
Ossabay 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 Last New

APRIL 6 13 19 72
MAY 5 12 19 27

MAY 1968

Day	HIGH WATER				LOW WATER			
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.		
1. Wed.	10:00	5.7	10:24	7.0	4:24	4:24		
2. Thurs.	10:42	5.5	11:06	6.8	5:00	5:06		
3. Fri.	11:30	5.4	11:54	6.6	5:42	5:54		
4. Sat.			12:24	5.4	6:36	6:54		
5. Sun.	12:54	6.5	1:24	5.6	7:36	7:54		
6. Mon.	1:48	6.4	2:30	5.9	8:36	9:06		
7. Tues.	2:54	6.5	3:36	6.5	9:30	10:00		
8. Wed.	3:54	6.7	4:36	7.1	10:24	11:00		
9. Thurs.	4:54	6.9	5:30	7.8	11:12	11:54		
10. Fri.	5:48	7.2	6:24	8.3		12:00		
11. Sat.	6:42	7.4	7:12	8.7	12:42	12:54		
12. Sun.	7:30	7.4	8:00	8.8	1:36	1:42		
13. Mon.	8:18	7.3	8:48	8.7	2:30	2:36		
14. Tues.	9:06	7.0	9:42	8.4	3:24	3:24		
15. Wed.	10:00	6.7	10:42	7.9	4:18	4:18		
16. Thurs.	11:06	6.4	11:42	7.4	5:12	5:12		
17. Fri.			12:06	6.1	6:06	6:18		
18. Sat.	12:48	7.0	1:12	6.1	7:06	7:24		
19. Sun.	1:48	6.6	2:18	6.1	8:12	8:36		
20. Mon.	2:48	6.4	3:24	6.3	9:06	9:36		
21. Tues.	3:48	6.2	4:18	6.6	10:00	10:30		
22. Wed.	4:42	6.2	5:06	6.9	10:42	11:18		
23. Thurs.	5:30	6.2	5:54	7.1	11:24			
24. Fri.	6:12	6.2	6:30	7.4	12:00	12:06		
25. Sat.	6:48	6.2	7:06	7.5	12:42	12:48		
26. Sun.	7:24	6.1	7:36	7.6	1:24	1:24		
27. Mon.	7:54	6.0	8:12	7.5	2:06	2:06		
28. Tues.	8:24	5.8	8:42	7.4	2:42	2:42		
29. Wed.	9:00	5.7	9:18	7.3	3:24	3:18		
30. Thurs.	9:36	5.6	10:00	7.1	4:00	4:00		
31. Fri.	10:18	5.6	10:42	6.9	4:36	4:42		

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



GEORGIA

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GAME & FISH



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GEORGIA

GAME & FISH

May 1968

Volume III

Number 5



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation.

Contents

Beavers Aren't Bad	Marvin Tye	1
Blackshear—Black Sheep?	Dean Wohlgemuth	4
Outdoor World		7
Cohutta: Comeback?	Jim Morrison	8
Pickrick Pulls 'Em In!	J. Hall	12
Showdown at Seminole	Dean Wohlgemuth	14
Sportsmen Speak		16
Sportsman's Calendar		17

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Red Light For Unwise Gun Laws

Members of the Georgia General Assembly are to be congratulated for their reasonable position in refusing to enact unwarranted firearms restrictions introduced at this year's session.

In spite of irrational newspaper articles and editorials purporting to show the need for such restrictions to halt a so-called "crime wave," members of the General Assembly refused to be blindly stampeded into legislation which would have unduly harassed the legitimate purchase, ownership, and use of firearms.

Members of the House Special Judiciary Committee are especially to be commended for their cautious, deliberate consideration of measures which would have had little if any effect in halting the use of firearms in crime.

Instead, the proposed measures would have served as aggravating nuisances to hunters, target shooters, property owners, and law-abiding citizens who have legitimate uses for firearms.

It is a well-known fact that requiring a permit or identification card to purchase a firearm hasn't stopped criminals from obtaining guns in such crime-riddled areas as New York City, Chicago, Philadelphia, or New Jersey. Neither have they stopped crimes of passion, with or without a firearm.

Criminals laugh at restrictions on gun purchase or ownership. They know that they can readily obtain a firearm when they want one by stealing it from a home or business while the owner is away, or by buying it from a crony in the blackmarket gun business.

Instead, such restrictions make the criminal's trade safe by discouraging his victims from arming themselves to protect their lives and property.

Provisions of such laws intended to keep firearms out of the hands of mental cases, narcotics addicts, and criminals are not enforceable. Even experts would have difficulty identifying many such persons, let alone law enforcement personnel with many other more pressing duties to perform.

The General Assembly did pass several positive gun bills. One such bill authored by Representative Willis Richardson of Savannah imposes a mandatory one to five year sentence on any person convicted of using a firearm in the commission of a crime.

A second bill prohibits sawed off shotguns and rifle, dangerous military-type weapons, and silencers currently prohibited by a federal statute that's enforceability has been placed in doubt by recent rulings of the U.S. Supreme Court.

A bill introduced by Senator J.A. Minish of Commerce legalizes firing a gun on Sunday at a target range operated by law enforcement officers or a recognized gun club.

More important, a resolution was adopted by the House setting up an interim committee to study proposals for gun control with instructions to make recommendations to the 1969 session of the General Assembly. The report of this committee will probably be an important factor in future legislation that may or may not be passed by the General Assembly.

While the resolution setting up the committee does not . . .
continued on page 19

ON THE COVER: A leaping largemouth bass, making a frantic (and successful) effort to free itself from a fisherman's lure. May is the bass fisherman's month in Georgia, all the way from Lake Seminole to Lake Burton. Painting by Daniel F. Ankudovich.

BACK COVER: Fish facts, illustrated by Rod Randol.

PHOTO CREDITS: Ted Borg 4, 6, 8, 1, 9, 11, 12, 14, 15; J. Hall t. 7, 13; Leland Moore, Ga. Forestry Comm. c. & b. 2; Jim Morrison 5, b.7; Lee Leonard Rue III 1, t.2, 3; V. C. Smith, Albany Herald c. 7; Marvin Tye r.9;

BEAVERS AREN'T BAD

Of all the varied species of wildlife to be found in Georgia, few are as interesting as the beaver. These lively animals played a major role in the early exploration of our country. The pelts were valuable, the animals widely distributed, and both trappers and explorers used the bodies for food.

In the early part of the 19th century, beaver pelts were in big demand for the production of the popular beaver hat. When felt replaced beaver fur as the primary ingredient in the manufacture of men's hats, trapping pressure on the beaver fell off sharply. But the damage had already been done. The beaver had been totally wiped out over much of its original range.

Shortly after 1890, alarmed conservationists began to work for the preservation of the beaver. The animals were given complete protection in many states. Beavers were removed from areas with an ample supply and restocked in states with a depleted supply.

Now the Georgia outdoorsman can wander far afield without finding some sign of this industrious worker. Beaver dams can be found along many wooded streams throughout the state. In fact, to some landowners, the beaver might seem to be too common. In Georgia, the beaver is not protected by any closed seasons. To some men this might seem an open invitation to kill a beaver that might build a dam upon his property. These men can see no benefit to be derived from having these animals on their land. All they can see is an unwanted intruder who dams up the streams and causes the water to flow onto their land. They seem to believe that the dams should be destroyed and the beavers killed. In addition to unwanted flooding, they believe their valuable timber is being destroyed.

The man who does not go along with this idea is Hubert Handy, Chief of Game Management for the Georgia Game and Fish Commission. Handy

believes that the beavers are a valuable natural resource that should be managed for maximum benefit. According to Handy, one of the greatest benefits to be derived from the beaver is that its dams provide ideal habitat for numerous species of wildlife. The impounded waters behind these dams provide spawning and rearing areas for fish such as bass, bream, crappie, pickerel, catfish, and others. Furbearers such as muskrats, racoons, weasels, and mink often live around these ponds and find much of their food there. Deer feed on water plants growing on these ponds and are sometimes able to escape wild dogs and other predators by taking to the water.

Most important, the wood duck, a valuable waterfowl species that was once almost extinct, must have wilderness ponds for its nests. Beaver ponds often provide the only suitable habitat to be found in the entire area.

Handy also says that the standing water behind a beaver dam will help to stabilize the water table. If it weren't for the beaver, in many areas the water table would be much lower than it is. Beaver dams often aid in flood control and can help to prevent erosion and excessive siltation.

The diet of the beaver is restricted to hardwood branches, leaves, and roots. They sometimes peel large areas of bark to reach the soft inner cambium layer. They also eat grass and parts of most water plants. In the South, beavers do not cut as many trees as in the North where the winters are more severe.

Unless the beavers are causing excessive damage to timber or are flooding valuable cropland, the landowner in most cases might be wise to leave the animals unmolested. However, when it becomes desirable to reduce the beaver population, every effort should be made to trap them during the prime fur season. In general, this is from January through March. These pelts require considerable care in handling, but when



by Marvin Tye

Beavers spend much of their time in the water and eat branches, twigs, roots, and bark of certain hardwoods as well as some water plants and grass.



Unusual underwater photograph shows beaver swimming with hind feet. Front feet are folded under the beaver's body as it swims.



Beaver ponds such as these provide ideal habitat for many species of fish, furbearers and other forms of wildlife.



On the negative side, beavers sometimes fell valuable timber such as this and may sometimes flood valuable crop land. This article describes methods of controlling this action.

Opposite Page: Beavers use large front teeth to cut down small trees which they use as food and as construction material for their dams and lodges.

proper skinning, fleshing, and stretching are completed, the pelts do have some market value. Although there is no closed season on beavers in Georgia, a trapping license is required. According to the latest report of trapping in Georgia, 425 trappers licenses were sold during the 1965-66 season. Eighty-seven trappers reported an average price per pelt of \$6.50 and a reported income of \$2,821 from beaver alone. It is estimated, based on these figures, that the total income to trappers from the sale of beaver pelts was \$13,780. Of nine animals taken by trappers in this state, only the otter and the mink brought more than the beaver in price per pelt. Mink brought an average of \$7.25 per pelt and otter brought an average of \$27.

Beavers belong to the rodent family. They have large yellow front teeth and are experts in their use. Adults average between 30 and 40 pounds. Grown beavers are 20 to 30 inches long and have a long, flat paddle-shaped tail. This tail is 8 to 10 inches long and 4 to 6 inches wide. It serves as a rudder while swimming, and when danger appears, the beaver slaps his tail on the water as he dives for safety. This results in a loud bang which warns other beavers within hearing.

Although beavers live in and around the water, they must breathe air. They can stay underwater for about six minutes. This enables them to swim a considerable distance underwater to escape danger. Beaver lodges are often built on small existing islands or they may be built up with sticks and mud in shallow areas. These are usually built with underwater entrances which give them added protection from their enemies.

Usually beaver numbers are highly over-estimated by people who are having trouble with them. An average beaver family consists of the parents, one to four yearlings, and one to four kits. One litter of two kits is born each year. A full family of beavers after the toll of enemies, accidents, disease, and other hazards usually consists of from five to seven. One family will maintain a set of dams, consisting of the home dam, and one or two minor dams above and below it, depending on stream conditions and the number of years the family has been at that location. The number of dams belonging to one family may be as many as five to seven consecutive dams or only the one home dam.

Beavers breed in January and February and the young are born in May and June with their eyes open. They can swim and move around soon after birth, but do not normally accompany their mothers about the pond and feeding areas until they are about a month old.

Rather than kill the beavers or destroy the dams, it is sometimes possible

to lower the water level by laying a pipe through a dam so that one end is in the pond and the other end is below the dam. The upper end should project at least 10 feet into the pond. Beavers would soon discover that water is going into an open pipe and plug it up, so it is necessary to close the upstream end of the pipe and cut several slots around the sides of the pipe. A coarse wire screen around the pipe will keep out floating trash. The bottom end of the pipe should extend at least 8 to 10 feet below the dam and have enough pitch that the water will run freely, but not enough pitch to create a strong suction at the upper end. This arrangement will limit the water level to a depth that is acceptable to the landowner, but will not cause the beavers to move to a new location. Pipes of this nature are effective only if they are arranged to have sufficient water depth in the pond to give the beavers plenty of swimming room. The screen should be cleaned frequently to prevent floating leaves, moss, and other debris from obstructing the pipe intake.

In extreme cases, complete destruction of the dam by using dynamite or other explosives will sometimes encourage beavers from rebuilding at the location. Sometimes it is also necessary to burn or haul away the limbs and sticks from the old dam. Otherwise, beavers will use the old material to repair the original structure or build a new dam. If the landowner cuts trees and other vegetation from the surrounding area prior to destroying the old dam, he will discourage the beavers from rebuilding in the same location.

As a last resort, he may kill the offending beavers with a shotgun or rifle. Beavers are wary animals who move most of their work and moving about at night. Complete control by this method alone would require considerable effort and a lot of time.

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 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.

Skinning and pelt care are important in determining the eventual sale price of the skin, but in few cases are these factors as important as when applied to the beaver.

Beavers are industrious, benevolent animals that should be preserved. They are of great value if you happen to be a landowner with a beaver problem. For proper control, you should be able to share your land with the beaver to mutual benefit. 🐾



Opposite Page: Records kept by the State Game and Fish Commission show that Blackshear is the number two bass/lake in Georgia. Vic Smith, sports editor of the Albany Herald, hefts a stringer of Blackshear bass taken on a Commission population study on a one acre cove.

Below: One of several proposed launching ramp site on Blackshear inspected by Commission personnel is at an old ferry landing near Georgia Veterans Memorial State Park.



AREA LOCATION MAP

Blackshear



Of all the many lakes in Georgia, one stands out above the others in several ways, but to a few folks, mostly in the manner that the legendary sore thumb is a eye-stopper.

Ask a fisherman around Americus or Cordele what he thinks of the lake, and if you happen upon one of these enchanted anglers, chances are if you're sensitive to bad language, your ears will take a beating. Grumbles, mumblings and murmurs make the words on the lake's shores—"fishing isn't what it used to be, or what it should be," you'll likely hear.

To conservation agency folk, there are other ways in which Blackshear stands out. One—despite the fact that the anglers seem to disagree—is that the lake is one of the best fish producers

in the state. It ranks second as a bass lake, only exceeded by Lake Seminole; first as a bream lake in the state; is among the better lakes for crappie fishing and is one of the more outstanding lakes for white bass.

In addition, fisheries biologists throughout the Southeast look upon Blackshear as a huge natural fisheries experiment station. Its 8,500 acres make it large enough to represent what happens in major reservoirs in this country, yet it is small enough so that fisheries people can more conveniently study it than they could a large body of water.

For this reason, Blackshear has been a guinea pig in reservoir fisheries management for the State of Georgia, and has had the eyes of other state conservation

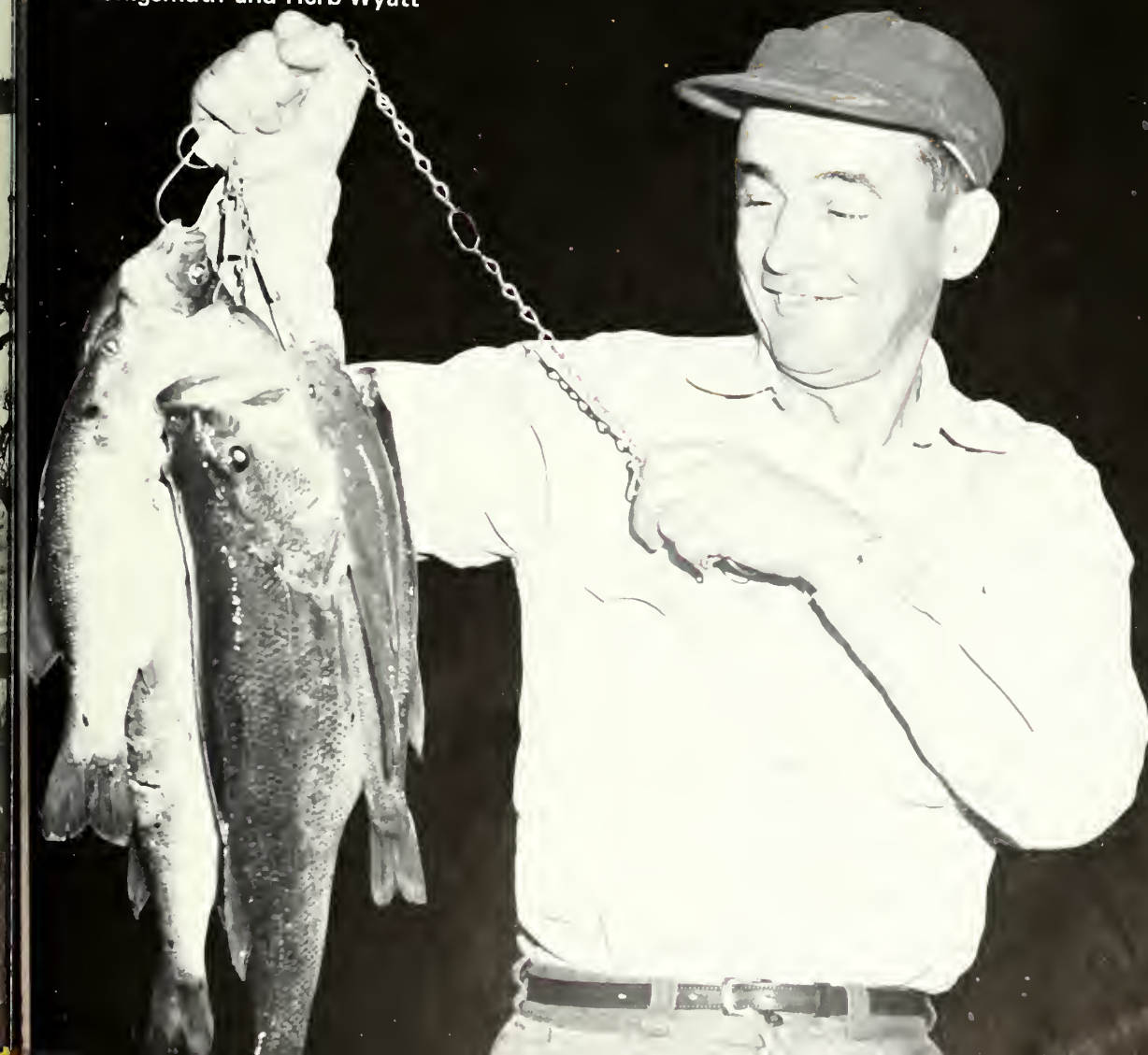
agencies upon it.

Probably more work has been done in fisheries management on Blackshear than on any other lake in the state. It was the lake along with nearby Lake Worth that was chosen for a selective shad kill experiment and research project in 1959. This project, which cost the Game and Fish Commission some \$20,000, was reported in various scientific journals. The results of the experiment were carefully scrutinized by biologists everywhere. The experiment has been closely followed up ever since by sampling evaluations to study changes in the lake.

The Commission, however, emphasizes that when any experiment takes place on Blackshear, the foremost consideration is given so that nothing is

Black Sheep?

Dean Wohlgemuth and Herb Wyatt



done that will harm fishing, in the judgment of Game and Fish's entire fisheries biologist staff.

And the only lake in the nation other than Blackshear that undergoes such extensive reservoir management techniques is Beaver Reservoir in Arkansas that is under Federal scrutiny.

But what about the fishing? Just how good—or bad—is the angling on Blackshear? The best yardstick known to the people in the business includes creel census studies and population studies. The creel census study looks at the fishing results of anglers—what species, how many per hour and so forth.

The population study is conducted on a typical (representative) area of the lake, and complete counts are made of all fish in that area, including both size and numbers of each species.

And, despite the opinions of some local folk, the Commission's studies indicate that Blackshear is one of the very best fishing lakes in the state!

It is unfortunate that there were no fisheries investigations such as those currently being held on Blackshear beyond 12 or 15 years ago. But then, such investigations were unheard of then, and very few states anywhere had ever thought of doing such research.

The Commission understands the problems of the local fishermen. And it realizes that according to these fishermen, fishing there has deteriorated in the last 15 or 20 years. The Commission is certain that all these fishermen are not wrong in their opinions.

With the lack of valid scientific information for the years before studies were made, there is no way the Commission can compare fishing today with what it was 20 or 25 years ago. If realistic comparisons could be made, it would be easier to understand the problems of the lake and perhaps help in finding a way to solve them.

Not all the answers are known on Blackshear or any other lake in Georgia, or any other state. Not even all of the questions are yet known. But progress is being made.

During the past six years of surveys, the Commission has found that Blackshear is the second best bass producing lake in the state, although only five or ten per cent of the anglers seek this species—and perhaps only one per cent are real died-in-the-wool, die-hard bass fishermen that go after their favored species all year long.

The most popular two species on Blackshear are bream and crappie. No lake in Georgia consistently produces more and better bream fishing than does Blackshear. This is figured on the basis of fish caught per hour of persons fishing.

Stripes show up in about 85 per cent of the total fishing season conducted on Blackshear, is for bass and crappie.

Catfishermen take up most of the slack between the bass fishermen and those after bream and crappie. Also, seasonally, large numbers—perhaps about 10 per cent of the total effort—of fishermen go after white bass. Blackshear is one of the best in the state for the scrappy white bass, and is among the top four lakes in the state for crappie.

Because the lake is a shallow one—it averages about 11 feet deep—it has much shallow water to provide bedding sites. And each year there are tremendous spawns of bass. And if you're a person who can smell out a bream bed, your nose could go crazy during the bream spawning spells.



Game and Fish Wildlife Ranger Hubert Simpson points out to Rep. Howard Rainey of Cordele a small pond adjoining Lake Blackshear, which the Commission may take over as a nursery pond. Striped bass may be reared there to a size of up to eight inches, for introduction into the lake.



Two adult striped bass, taken from the Savannah River, are released by Raymond Lain of Dawson in Lake Blackshear to find a new home. It is hoped that these, and about 200 other striped bass adults, will reproduce in the lake, giving anglers a new sport fish.

Rough fish? Abundant? No. There are less rough fish in Blackshear than in any other Georgia lake.

Weeds? Yes, there are many in a great many areas of the lake. But this is typical of all South Georgia impoundments. Although they are an inconvenience, the fisherman may as well resign himself to the fact that weeds will be there if he fishes anywhere in South Georgia. Nothing can be done about them. One of the major reasons that Blackshear was selected for so many experiments is because it is among the very oldest major impoundments in the state, having been impounded in 1934. Studies of this lake can give the Com-

this lake can give the Commission idea of what to expect in other lakes when they reach a similar age.

So of course, when the Commission began work on introducing striped bass into freshwater impoundments in hopes of establishing landlocked populations of this saltwater species, Blackshear was near the top of the list.

During the past few years, Blackshear has received introductions of about 200 adult striped bass. These fish were caught in the Savannah and Ogeechee Rivers, where they came from the Atlantic Ocean to spawn. The Commission hopes the stripers will spawn successfully in the lake, and populate the lake naturally.

However, not willing to wait for nature to take its slow course, the Commission hopes to give striped bass a big shot in the arm through stocking of fingerling stripers, some to eight inches long. Once fry reach that size, they have a very high survival rate. Of course, just when the lake will be a good place for striped fingerlings depends entirely on when the fingerlings will be available. That may be this year—maybe not.

But when the stripers do become established, it is expected that this will not only add another good sports fish to the lake, but will help control gizzard shad and thus provide better habitat for normal freshwater game species.

Is it worthwhile to go there now to go fishing? The Commission thinks certainly is. And being an old, established lake, facilities are plentiful. There are public boat ramps are operated by the Georgia Veterans Memorial State Park near Cordele. And the Commission plans to build up to four new public ramps on the lake soon, if deeds to the land can be obtained for the state by the counties. The state park also has cabins for rent, concessions, and rentals. There is also a fishing pier.

Privately operated boat landings, boat rentals and concessions can be found on Spring Creek, Smoke Bay, on Swift Creek and there are a couple on the upper end of the lake along a major route between Vienna and Americus.

While overnight facilities on the lake are not plentiful, both Americus and Cordele have plenty of motels and restaurants. Both cities are within an hour of the lake. And with the new state 75 highway through Cordele, it is easy to get there. Because of the lake, there are many fine motels and restaurants available at Cordele.

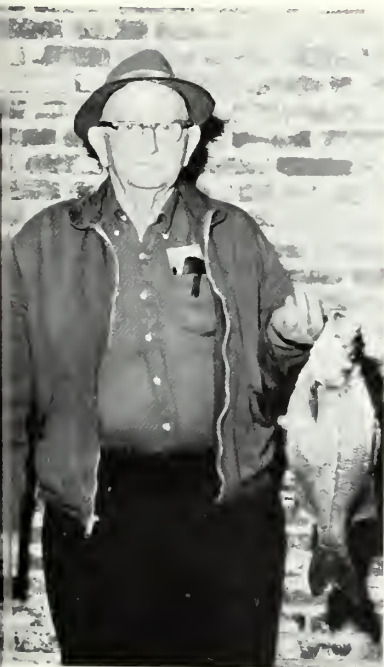
But for the most part, the people using Blackshear are those that live nearby. Those fishermen living in the area around Cordele and Americus provide the bulk of fishing pressure.

There are enough fish there, however, for anyone who wants to try a challenge in angling! 🐟



the outdoor world

WORLD RECORD WHITE BASS EATEN?



Georgia may or may not have lost a world record fish. The story started when T.E. Hill of Albany caught a big white bass out of the Savannah River March 21st. Hill was fishing about 300 yards below the Lake Worth dam of the Georgia Power Company, just outside the Albany city limits. The whopper weighed five pounds on a lead-headed jig. Hill's grandson persuaded him to show the fish that night to Vic Smith, editor of the Albany Herald, who took the picture of Hill and the fish. When the picture showed that the fish weighed five pounds on Hill's bathroom scales, Smith weighed it on his own bathroom scales, and it came up with the five-pound weight. "It looked heavier than five pounds to me," Smith told the State Game and Fish Commission the next morning. He tried to get him to have the fish weighed and mounted, but it

didn't do any good. I even told him I'd pay to have it mounted."

Smith said the elderly Hill told him, "My belly comes first. I think I'll eat 'em. My wife really likes fish—I'm going to enjoy watching her eat that fish."

Dougherty county wildlife ranger Otis Houston rushed to Hill's house the following morning in an attempt to save the fish, but Hill had already cleaned and cut it up to eat.

Authorities say that the average bathroom scale could have easily weighed a half a pound or more heavier or lighter than the fish actually was, meaning that the fish could have exceeded the present world's record for white bass of five pounds, two ounces. A four pound, five ounce white bass won the Georgia fishing contest last year, sponsored by *Game & Fish Magazine* and the Georgia Sportsman's Federation.

Entry forms for the contest may be obtained from your local sportsman's club, official fishing contest weighing station, wildlife ranger, or the State Game and Fish Commission, 401 State Capitol, Atlanta, Georgia 30334.

Jim Morrison



State Record Tied

Ed Cox, of the Gainesville Marina, proudly displays the four pound, fourteen ounce white bass caught near his marina on Lake Lanier by Clyde Vaughn of Canton. Mr. Vaughn's catch tied the state record for white bass, and is leading this year's Georgia fishing contest in that category. He took the lunker on a Rapala lure.

Champion Fishermen Get Prizes

The winners of the 1967 Big Fish Contest sponsored by *Game & Fish Magazine* and the Georgia Sportsmen's Federation were awarded their prizes of a rod and reel recently on "Inside Outdoors," WJRJ-TV, Channel 17, Atlanta, the program hosted by well-known outdoor personality John Martin. From left to right: John Martin; Mrs. Joan Philyaw of Marietta, catfish; Grady Watkins of Ellijay, bass; Ken Kirkland of Jonesboro, crappie; H.T. Davis of Toccoa, white bass; and Jim Adams, president of the Georgia Sportsmen's Federation, who presented the awards. Not pictured are C.E. Morris of Appling, bream; and William Lowery of Marietta, trout.



Area Manager Buford Withrow scans Cohutta Mountains from an overlook Georgia 52 outside Ellijay. There are roads in most of the area's 90,000 acres, many of them are passable only in four-wheel drive vehicles.



Cohutta: Comeback?

by Jim Morrison

*A ravaged wildlife wonderland
gets a second chance.*

"The Cohutta Area was abandoned in 1960 due to the lack of cooperation from the local people, courts, judges, juries, and indiscriminate use of dogs for taking deer by hunters."

—Annual Report, State Game and Fish Commission, 1961

■ There the unbelievable words were, staring out of the harsh black and white reality of a newspaper page: "A north Georgia game management area that was once wiped out by poachers will be reactivated by the State Game and Fish Commission."

The story continued, "In a joint announcement, Commission Director George T. Bagby and Chattahoochee National Forest Supervisor Darold D. Westerberg said that the old Cohutta Game Management area would be re-established on 90,000 acres of federal land in Fannin, Murray, and Gilmer counties."

"When the area was abandoned," the story continued, "law enforcement efforts of the Commission to stop illegal deer hunting with dogs on the area failed completely after local county grand juries refused to issue true bill indictments against violators arrested by wildlife rangers on the area."

"As a result, the deer population dwindled to virtual extinction," the story said. "Now that there have been

little or no deer or turkeys to hunt the area for several years, local residents say they realize their mistake."

"Game management personnel of the Commission describe the area as one of the largest remaining wilderness areas in Georgia that is almost totally devoid of big game, especially deer and turkey."

Apparently, that story had the shocking effect that it was intended to produce.

"I never knew that things like that actually happened right here in Georgia," the startled visitor in the office said. "That sounds like something you'd read about in the west." As a trained and experienced professional conservationist, my guess certainly was better informed than the average citizen, yet he had never heard of one of the most serious problems faced by the State Game and Fish Commission.

Apparently, his example is typical of thousands of sleeping Georgia sportsmen who honestly don't know all the all too real, heart-breaking setbacks that the cause of wildlife conservation has suffered under their unsuspecting eyes.

Just as most concerned sportsmen didn't realize that uncontrolled dogs are deadly effective predators on deer, many of them realize that uncontrolled illegal hunting and poor local enforcement support can and often does derail Commission wildlife conservation programs before or after they get started, inside and outside game management areas all over Georgia.

For these reasons, many thousands of prime Georgia hunting lands do not support the wildlife population that they are capable of supporting, especially of big game species like deer, turkey, bear, and waterfowl, especially waterfowl. These species can be, and often are, wiped out entirely in areas of heavy poaching.

The Cohutta area is not the only example of what can happen when people don't care how wildlife is abused. The old abandoned Guntersville Management Area on the North Carolina state line in Towns and Union counties is a similar case. But the destruction of the Cohutta area is a classic example of how to destroy v

Withrow examines a doe deer's head, evidence of the wide-spread poaching and game law violations that have gone virtually unchecked in the Cohutta area for years because of poor cooperation with the Game and Fish Commission by local people and the courts.



Gangway! A frightened South Georgia doe leaves the stocking truck in a hurry for freedom on the Cohutta area, where deer have been almost extinct for many years because of illegal dogging. More than 17 deer have already been restocked on the area.



resources. Cohutta is one of the finest, prettiest areas there are in the State," says Foster of Hiawassee, who began his career in game management with the Commission 12 years ago as one of the game managers of the Cohutta area. "It's the best deer country I've ever been in my life—if it had a chance," he says. He spent 18 months working on the area. Asked if he'd go back, he says "No, not unless the attitude of the people has changed." "The first year on the refuge, I felt I was doing some good, but the second year I saw that we were going downhill. I made a lot of friends there, most of the people were misled. I like I had wasted my time trying to get up the refuge." "Lost of my experience that I had was with people deliberately dog-deer," Willis says. "I had to bust up almost every day. There'd be up to 30 people lined up on the ridge with shotguns, waiting for their turn to chase something out of the past them." "They'd be lined up about three to four hundred yards apart. If I asked the dogs belonged to, they'd say they didn't know. If one of them killed a deer, they'd load him up in the car and away and rush it out of the refuge before we could get there." "Sometimes it seemed like we had to do a go-round with everybody we met. After a while, I began to recognize the violators who were causing the most trouble. When I saw their cars parked on the boundary road, I knew to look for them." "About the maddest I ever got," says Foster, "was when they started dogging deer right in front of my house on the Conasauga River when they weren't expecting me." "Ranger Hobbs from south Georgia was with me that time. We even caught the dogs and tied them up, but nobody would claim them." "Another thing, there wasn't much cooperation," Foster recalled. "There wasn't much use in carrying a deer down to Murray County. A \$13 bounty would cover anything that they could keep from having to go to court,

from hunting without a license to killing a deer."

"In Gilmer County, court cooperation was fairly good," Foster remembers, "but there wasn't much land in the refuge in Gilmer County, except for a narrow, rough section at the checking station on Potato Patch Mountain."

"Fannin County was nearly as bad as Murray. Once in a while we'd get a billing (true bill indictment by the grand jury) in Fannin, but usually they'd just throw the case out in both Fannin and Murray counties."

Foster can smile about his experiences on the Cohutta area now, but they weren't very funny to him at the time. "They was some tough'ns over there," drawls Foster in his mountain manner, "about as tough as I ever ran into. They had no respect whatsoever for a game warden."

"I had a gun drawn on me one night. Ranger Johnnie Hunt and I had to run a violator down. He refused to buy a permit at the checking station for a small game hunt, and went right on into the area and started hunting. I went after him and asked him, 'You want to go to Ellijay (the country courthouse) or go back out and buy a permit?'"

"Put it like that, I guess I'll go back and buy a permit," he said. But when he got in his car, he went flying by the checking station. Johnnie and I ran them down in a new jeep, and almost wrecked getting them stopped."

"First thing I knew, he was drawing an old shotgun out of the car," Foster said. "I had my pistol out, and Johnnie had the other one covered. The old boy lived in Hell's Hollow, fairly close to the refuge. He didn't even have a hunting license. We turned him loose. We knew it'd just be a waste of time to carry him in anyway."

"We had fishing violations year round over there," Willis remembers. "Fishing without a license, catching over the limit, you name it. Those streams were real good then, about the best I knew of, especially the Conasauga and the lower end of Jack's River."

"They were fairly bad to dynamite those streams. We found a lot of wire on the banks, so we knew they'd used

dynamite or dynamite caps, which are just as bad."

"We didn't have any problems with night hunters," Foster says. "We didn't have enough deer to pay a man to drive through it at night. I never saw a deer at night during the 18 months I spent there. We were lucky to see any in the daytime."

But deliberate, illegal deer dogging was all too common. "Even in the middle of July or August, you could hear the dogs running," Foster says.

"Grouse hunting was real good. I saw as many as 40 to 50 grouse in one day, during the summertime when they were raising young. Didn't seem to be too many squirrels on the area. At that time, spanworm was hitting the oaks and hickory nuts. It had just started when I was there in 1957, so there wasn't anything much for them to eat—they just moved out."

"There was one flock of turkeys I knew of that had seven or eight birds in it, but three or four flocks were all I ever saw on the area. They was several hogs. Some people had been turning loose wild Russian hogs in the woods, and some people were even still running their hogs loose in the woods. One old man was hunting his hogs all the time."

Foster's experiences on the area are echoed by veteran ranger Johnnie Hunt, who worked on the Cohutta for five and a half long years—twice as long as the average for more than a dozen refuge managers who preceded him since the area's creation in 1937, not counting the dozens of wildlife rangers who have worked temporarily on the area. Now the Rabun County ranger living at Clayton, Hunt was the last manager of the refuge when it was abandoned by the Commission as a waste of time and almost a total loss in 1960, after 23 years of futile effort.

"I wouldn't say that we didn't do any good at all on the area while I was working there," Hunt says. "We did get the number of deer killed on the managed hunts up to about 30 one year, which isn't too bad for a rough mountain area with about 300 hunters. But it never was what it should have been. Cohutta is a good game area—one of the best that we have, if it's protect-

ed right, worked hard, and you get some cooperation from the people and the courts."

"I don't blame the Department for abandoning the area, although I hated to see five years of my work go down the drain. I felt like I did make some progress, but there's no point in us butting heads with violators unless the people are pulling their share."

"When I was there, it was pretty tough sledding. We didn't have any court cooperation to amount to anything. If we got a bond forfeiture or a fine in Murray County, it was \$13, if we got a fine. In Fannin it was \$28, if we got a fine, but most of the time we didn't even get a fine."

"We got pretty good cooperation from the sheriffs, and from the solicitor and judge. Maybe the judge could have put a little heavier fine on them, but you can't blame him. He's elected by the people, so he can't be too strict."

"We lost most of our cases in the grand jury room," Johnnie continued. "People in the mountain counties are what you might call 'clannish'. They might not all be related to each other, but they know just about everybody in the county. When the grand jury list is published in the paper, a violator would go find some of the jurymen and ask them to get him off the hook. Most of the time they'd do it, in case they got caught the next time and he was on the jury!"

"If I ever carried somebody from out of the county in that they didn't know, I never had much trouble getting a conviction, but if he was a resident, they'd figure 'Old Joe's a pretty good fellow, and it'd be a shame for him to have to spend his hard-earned money on a fine,' so they'd let him off by no billing the case."

Eight years later, when asked if he had a rough time on the Cohutta area, Johnnie can laugh and say, "I've been trying to forget about that."

"The people that I ran into in the field, I don't know whether to call them hard headed or just plain ignorant. About the only way you could get them to go with you to the courthouse was to manhandle them." For a six-foot plus, 200 pounder like Hunt to have trouble making an arrest speaks for itself.

"They're what you'd call mountain people. If you said you were going to take him in, then you'd better take him in, or else he'll take you someplace! If you told him you were going to knock him down, then you'd better knock him down!"

One fellow threw a gun on me. I got it away from him before he realized it, and when he did he was determined to get it back. He insisted that he was going to get it, and kept trying to snatch it away from me. I finally had to wrap him over, and he went with it before he

realized that I meant what I said. I made several cases against him after that, and he came along just as pretty as you please. He told the fellows with him one time. 'Thar ain't no use arguing' boys, he means what he says."

"A ranger or two before I went over there was shot at," Johnnie says. "One time they shot a bunch of limbs down all over one, and another one was shot with fine shot. I was fortunate—I never did have anybody to shoot at me. I told them if they did shoot at me to be sure and hit me, because I wasn't going to play with them."

The most vivid experience that Hunt remembers was the incident when the gun was drawn on Willis Foster.

"That's the closest I ever came to shooting a man in my life," Hunt says. "He was a preacher's son, from a well thought of family. We had to run him down. Our bumpers got hung up, and we almost skidded off the side of the mountain before we tore his bumper off and finally got him stopped. That's when he slid the shotgun out and started leveling down on Willis. I drew my pistol and told him to drop it, but he kept drawing it down on Willis anyway. Just about the time the gun leveled out, he dropped it."

"I picked it up on the ground—it was empty. Since then, I've thought what a mess I would have been in if I had killed him. There's no way I could have explained it to his parents, or to anybody. He was only 16, but he was big enough to have killed Willis if he had pulled that trigger on a loaded gun. But how can you take a chance like that—if it did have a shell in it, you'd never hear it going off."

Like most people, Johnnie is impressed with the tremendous size of the Cohutta area, and its remoteness. "The way it's laid out, it's hard to work. You have to be in good condition. Those people don't mind walking back into the refuge. People'll let them off in a car and come back later to pick them up. It's so large, somebody can shoot a gun in there and you'll never even hear it, even with you standing there listening. They could go in there and carry off the place, and you'd never even know they were in there. Most of them are better at covering up their tracks than you are at finding them."

"I spent days and nights in there. You can't drive a truck in where there's no road, and you can't catch them in there without walking in and staying with them until you've finished, so that you won't have to walk out and walk back in again."

"I remember spring before trout season opened on Jack's River in a section that could only be reached by wading the river 17 times on foot to reach it. I went down there and caught some fellows trout fishing out of season

at the 17th ford. I had to wade waist deep in the creek, and the temperature was in the low 40's that day. You know how cool a fellow can get walking while he's wet on a day like that."

"Hammer fishing was another favorite trick. They'd use an eight pound hammer and beat on the top of rock over a trout hole. That'd stun the fish and cause him to float up, and then they'd net him before he recovered. Another was using an old .22 rifle to shoot the fish or just stun them by sticking the barrel six or eight inches into the water next to a big trout and pulling the trigger. He'd come floating out of there. I've caught two boys one time with 20 trout they'd got that way. It was work with most .22's today—the barrels burst."

Like Willis, Johnnie remembers dogs on Cohutta. "We had plenty of trouble with dogs. There wasn't much of a problem with stray dogs. Most of them came from Murray and Whitfield counties. The biggest major problem of it was deliberate deer dogging. Some of them were even brazen enough to make any bones about it. If you ask them what they were doing or accuse them of dogging deer, they'd just 'prove it' and let it go at that. They might as well have told you what they were doing, you knew it as well as they did. The worst violators were as read on the laws as we were. They knew the laws, and they knew what they could get away with and what they couldn't."

"There were some people who were interested in protecting the refuge, they helped me out, but the majority of the people were misled. There weren't enough people talking up the value of the refuge, and most people just honestly didn't realize that they were destroying their sport, although some of them did and were too selfish to care. I had some of them tell me that the Game Lord put the game there for their kill, and that we shouldn't interfere."

"I think that people have realized their mistake. Now that they recognize their errors, I believe we'll get better cooperation. People realized that they cut their own throats when the Department had to abandon the refuge. When they killed off the game, they had to do their deer hunting somewhere else."

"But I know if the counties could help any more than they did when they were there, whoever works it is going to have an uphill fight."

"It's a good refuge," Johnnie concludes. "But whoever works it will have to stand fast and let people know they intend to enforce the law, and if they'll get out and work, they'll have a good refuge over there."

As I hung up the telephone after talking to Johnnie, I was reminded

ther paragraph in the newspaper
y:

Bagby and Westerberg said that the
is being re-established only because
the active requests and petitions of
residents of the three county area,
ompanied by pledges of support for
mission law enforcement and game
agement efforts from the county
iffs, grand juries, solicitors, judges,
e representatives, and county com-
ioners."

actly how good those pledges of
ort are won't be tested until the
itable violators are arrested on the
and carried to court.

good man has been assigned to take
ge of the Cohutta area: wildlife
er Buford Withrow, formerly the
manager of the Commission's
ed Lake Russell Game Management
near Toccoa. Withrow made most
ne field observations in a tradition-
king study of predation on deer by
ntrolled dogs which has attracted
onal attention to Georgia. (See
gged to Death," January 1968
e & Fish).

quiet, likable, hard-working fellow,
rd is well suited to the job. A
e of Gilmer County, before joining
Commission on Lake Russell, he
ed as a lineman for the power
pany at Marietta.

made two and a half times the
/ with them that I do now, but it's
what you like. I just like to live in
mountains. I guess you can get the
out of the country, but you can't
the country out of the boy."

ter meeting Buford on the square
ijay, we drove up the mountain in
our wheel drive pickup truck. Be-
long, we were winding up the
ng state highway that enters the
ge, Georgia 52.

I don't think the deer hunters do
hunt this area out of deer, if we
ever get it started after we stock
we can just keep the dogs out,
I never have to worry about legal
ng wiping them out again. A
r just won't go more than a few
ed yards off the road here to
And even if he killed a deer
r off the road than that in most
e, he couldn't get it out, especially
i himself."

sted to describe the almost 100,000
s of the new Cohutta, almost twice
ze of the old Cohutta area, Buford
s a deep breath and says with
ng, "It's big" with drawn out
his is on the word "big".

opping at a cleared overlook on the
s, Buford pointed out the vast ex-
e of the area. "You're looking at
s Mountain—that's in the area. On
ft over there is Fort Mountain.
outside the area."

all those dead trees through
They're oaks killed by the span-



worm about 10 years ago, I guess. These
mountains once were covered up with
chestnuts 35 to 40 years ago, before the
blight got 'em. My dad used to come up
here and gather up a bushel of fat
chestnuts under a big tree where the
hogs hadn't gotten to them. That's a big
loss—it's hard to estimate how many
deer and turkeys we'd have here if we
still had chestnut trees. You never see
one now. Some of my relatives in the
valley have some, but the blight gets
them by the time they get three or four
years old."

"That's Cowpen Mountain over
there," said Buford, pointing to a huge
wooded promontory in the distance.
"It's the highest mountain on the area—
4,137 feet. It's called Cowpen because
people used to run their cattle and hogs
in the woods and round them up and
separate them out at a pen on Cowpen
Mountain. My dad was one of the last
ones to run cattle up here. He used to
walk into the area every week or so to
see about the cows and to leave them
some salt."

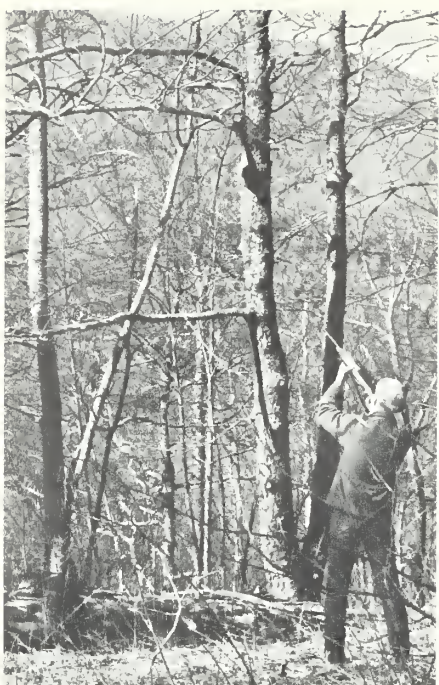
"In those days, the mountains were
burned off every year. Even the Indians
did it. You had lots of tender green
stuff growing everywhere, especially the
road banks. Controlled burning really
helps game, 'oo. It's been proven that
controlled burning doesn't hurt your
trees and lumber when it's done right.
I'd like to be able to do some of it
here."

"State route two goes over Cowpen
Mountain—it's 18 miles long, all dirt.
Sometimes you can't get through it in a
jeep. I'd like to close it off with a gate if
the Highway Department will let me.
It's shown on the map as a good dirt



*One of Georgia's most beautiful trout
streams, the Conasauga River, flows
through Cohutta's vast wilderness,
one of the most remote hunting
areas still left in Georgia.*

*The U. S. Forest Service's Conasauga
Lake and picnic area is one of the
most popular scenic attractions in
the Cohutta area. Conasauga is the
highest lake in Georgia, and one
of the coldest.*



Hunting Cohutta's steep hills is a challenge for the strong-legged. The Cohutta area is open for small game hunting in the fall months, but squirrel and grouse hunting was poor during the past season.

road, but it's impassable during the winter. We'd be doing a favor to people to keep them from getting stuck on it, and I'd be able to protect the game in there better for a few years."

Buford will be allowed to gate some of the smaller logging roads on the area that will be used and maintained by the Commission for patrol work, but he would like to be able to close off others, except during the small game hunting season and trout fishing season.

Some of Buford's problems in patrolling the refuge encountered by his predecessors on the old area have been eliminated. Because of the increased size of the new area and the purchase of extensive private holdings in it by the Forest Service, many areas that once served as bases for poachers to enter the refuge have been eliminated.

The area was open for small game hunting during the past season, but hunting was poor. At present, the grouse population throughout the entire mountain area is at an unexplained low point. "I haven't seen any on the roads here," Buford said, "and there don't seem to be many squirrels anywhere except along the creek bottoms. They just won't stay on the high ridges when cold weather hits, and the mast crop there is unpredictable from year to year." Like most mountain forest areas, there are few quail, rabbits, raccoon, or foxes, due to the poor habitat for these species.

The entrances to the area will be marked with redwood signs installed by the Commission and the Forest Service, but they won't be painted with

yellow paint or posted with signs, except in a few areas. "Painting won't really be necessary here because the boundary follows the roads in most cases." Buford pointed out, "and it would be a tremendous job on 90,000 acres going up and down these mountains."

Buford estimates that there are at least 115 miles of trout streams in the Cohutta area, primarily on the Conasauga River, Jack's River, and Holly Creek. All three streams have a good population of native trout, and are also stocked regularly by the Commission during the trout season. As in past years, all three streams will continue to be open for fishing without charge from April 1-October 15. Directions to the area streams, among the most beautiful in the State, are contained in the Commission's free trout fishing regulations folder, available from the State Capitol office. Maps of the area will be available for small game hunters by this fall.

The Forest Service will assist the Commission's game management efforts on the area by creating and maintaining permanent wildlife openings to provide natural food for game. Timber management on the area will give heavy consideration to wildlife needs. Some food plantings will be made on the area by the Commission, primarily for turkeys and small game.

Recently, more than 17 deer from South Georgia were stocked on the area, using federal aid funds that require that deer hunting not be allowed on the area for at least five years to allow the herd to build up under protection from poachers and dogs. Wild turkeys will also be stocked on the area, if any wild birds can be obtained.

While deer and turkeys are not completely extinct on the area, their numbers are severely depleted. "I haven't seen a deer since I've been here," Buford says, "except in my own backyard just off the edge of the area." Some animals have moved into the area from the Ocoee Game Management Area across the state line in Tennessee.

Have the hunters and residents of the Cohutta mountains learned their lesson? There is a saying that history repeats itself, especially when the lessons of the past are ignored. Already one surviving leader of the group of known deer doggers who helped kill the Cohutta area once has threatened to attempt it again, unless he and his minority group are allowed to have their way, regardless of the damage they do, unchecked by Commission law enforcement personnel.

Unless the majority group wakes up to the danger and gives the Commission its overwhelming public support through voluntary cooperation with conservation measures, especially in the jury room, history will repeat itself. ☞

"Now if you have any further question, That wide Gubernatorial Grin speaks for itself about the pleasures of an afternoon's fishing and a full stringer to show for it. C. Maddox took considerable good ribbing about going fishing with a tie that proved he wasn't only the best angler in the Georgia mountains, but the most successful as well. Several folks heard discussing the color ties they were to wear on their next fishing trip. It was a black tie affair."

pickric pul e i by

There's a special charm and mysticism about trout fishing... the swirl of the swift water streamer, the sudden jerk, the strong, struggling of a fighting trout—this is the magic that makes trout fishermen swear it's the only kind of fishing there is. Everybody else is just fooling around.

Whether this is true or not, we leave to the fishermen to decide among themselves. But that it is both a superb sport and unexcelled as relaxation, is beyond question.

As evidence, we present these photographs of Georgia's first North Georgia trout fishing summer at Lake Burton with Governor Lester Maddox, during an afternoon of freedom from the cares of office. The first North Georgia trout fishing summer at Lake Burton with Governor of the State Game Commission, George T. Bagby.



"Here's one that didn't get away!" Commission Director George T. Bagby (His doctor told him to stay away from cigarettes) displays his angling ability by hooking onto a nice brook trout.

"If I feed 'em now, will they remember me if they see me on a stream?" We don't know about the length of a trout's memory, but the ones roiling up the water in the raceway at the Commission's Lake Burton Fish Hatchery were certainly happy to see the Governor on his inspection tour. Looking on, left to right, Director Bagby, Leon Kirkland, Commission Fisheries Chief, and Joe Sports, Executive Secretary of the State Democratic Party.



"Just take a look at that beauty!" Governor Maddox displays a catch to the group, who are as pleased as if they'd caught it themselves. Left to right, they're Capt. Steve Folk, Ga. Highway Patrol, and Ranger W. L. "Dub" Lovell, Game and Fish Commission.



SHOWDOWN AT SEMINOLE

Cold weather couldn't stop the Lunker Bass Tournament.

By Dean Wohlgemuth

■ The lake that treated him so well the first two days turned a cold shoulder on Albany's Bill O'Connor in the third and final day of the Seminole Lunker Bass Tournament, dropping him out of the lead spot into the third place berth at the end of the competition.

O'Connor took 413 ounces of bass the first day, followed with 156 ounces the second day, but went fishless the final day of the big event which was held February 22-23-24, at the Booster Club Landing on Lake Seminole. His 413 ounces (25 lbs., 13 oz.) was the largest catch for a single day.

The fishless day dropped O'Connor behind Carl Dyess of Memphis, whose hot final day score of 304 ounces boosted him to a final total of 632 ounces. M. J. Watkins of Decatur, Alabama, posted a total of 609 to take second place ahead of O'Connor's final 569.

Glen Wells of Greenbriar, Tennessee, landed an 8 pound, 12 ounce bass the

first day to take the prize for the largest fish of the tourney. For this he won \$10 per pound, for \$90 prize money. He wound up in 11th place in the tourney scores, with 231 ounces. Second largest fish of the tournament was 7 pounds, 8 ounces, caught by Gerald Blanchard of Memphis. This was also the largest fish caught on the third day of the tourney. O'Connor took a 6 pound, 10 ounce bass the second day of the tournament to win the largest-of-the-day award for that day.

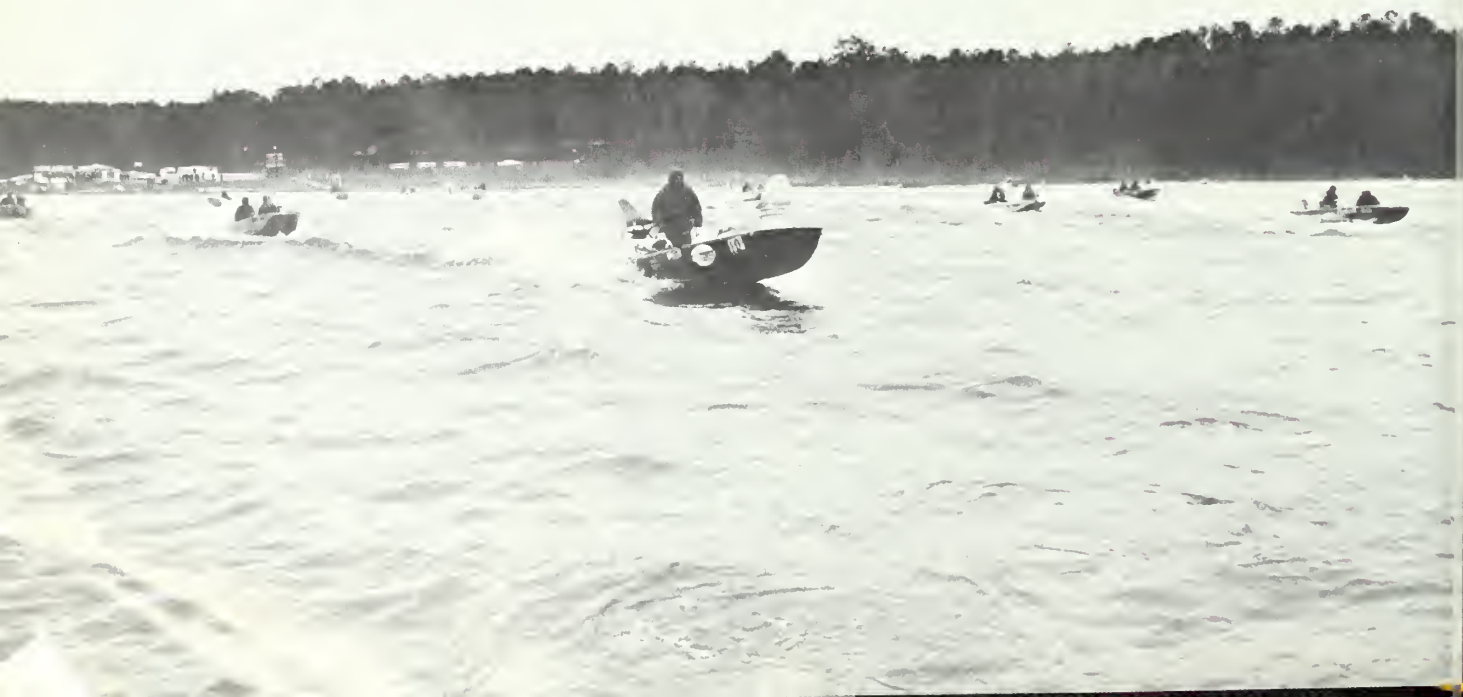
Top prize money of \$2,000 went to Dyess. Watkins took home \$1,000, and O'Connor received \$500. Trophies and prize money were given to the top 15 anglers. Also, trophies were given for the largest fish of the tournament, largest fish of the day, the leading point scorer from each state (for states with at least five entries), and the road runner trophy for the angler who came the farthest to enter.

Two other Georgians also finished in

the top 20. Bill Morgan, also of Albany finished 15th, the final place to draw cash prize and a trophy, with 20 ounces. Also, Joe Gray of Mableton finished 18th with 186 ounces.

Buddy Crown of Valdosta finished not far out of the top 20 with a total 128 points, 37 points behind the 20 place finisher. But Crown, too, met with misfortune. On the first day, with seven nice bass on his stringer and an hour and a half to get back to the dock, his outboard motor leaped off the transom dropping into some 20 feet of water. Crown called in to tournament headquarters with an hour to spare, but by the time he and his companion could get help bringing their boat home by trailer, it was well past the 6 p.m. daily deadline. His string of seven, which would have put him well into the running, had to be disqualified.

Bad weather plagued the 150 entries in the tourney throughout the affair. A cold front moved in the night before



event opened, and left strong cold winds, rain, clouds and even some snow.

The final day began with a rather heavy snowfall, but by midmorning contestants got their first look at the sun. Though still cold, they enjoyed better weather that final day than they did the first two days.

Tournament Director Ray Scott of Montgomery, Alabama, said about one ton of bass was caught by all contestants during the three days, despite the bad weather conditions. Few entries dropped out before the end. However, quite a few did go fishless throughout the three days.

At right is a rundown on the top 20 places in the tournament, below, the results of Georgians entered:

Georgia Entries

	Score
Bill O'Connor, Albany (3rd place)	569
Bill Morgan, Albany (15th place)	206
Joe Gray, Mableton (18th place)	186
Buddy Crown, Valdosta	128
Claude Smith, Nahunta	96
Claude Nalley, College Park	96
Martin Brown, Forest Park	86
Jack Carlton, Macon	64
J. B. French, East Point	61
Charles Fergeson, Mableton	49
Earl Segars, Emerson	41
Darryl Crumbley, Griffin	39
Wayland Foote, Fairburn	36
Mac Preston, Atlanta	33
Dr. Derrel Hazelhurst, Macon	32
Cal Pearce, Lumpkin	21
Ray Hall, Fort Valley	17
Art Barry, Macon	0
Jim Bell, Hartwell	0
Bill Brown, Cartersville	0
Grady Christopher, Atlanta	0
Griff Griffin, Acworth	0
Pete Henson, Mableton	0
Art Mickler, Macon	0
Don Moody, Woodstock	0
George Patton, Macon	0
Carter Setliff, Atlanta	0
Bill Short, East Point	0
Bill Simmons, Macon	0
Rock Stone, Hapeville	0
Ed Wiggins, Warner Robins	0

	Points (One point per ounce of bass)	Prize Money
1. Carl Dyess, Memphis, Tennessee	632	\$2,000
2. M. J. Watkins, Decatur, Alabama	609	1,000
3. Bill O'Connor, Albany, Georgia	569	500
4. Ed Loveall, Louisville, Kentucky	484	350
5. Larry Switzer, Herrin, Illinois	348	300
6. Stan Sloan, Nashville, Tennessee	332	250
7. Charlie Bampus, Clarksville, Tennessee	326	200
8. Johnny Fox, Memphis, Tennessee	283	165
9. Ray Murski, Dallas, Texas	261	160
10. Milt Goodwin, Little Rock, Arkansas	241	150
11. Glen Wells, Greenbriar, Tenn.	231	145
12. Herb Perry, Savannah, Tennessee	227	140
13. Tommy Cleaves, Memphis, Tennessee	219	135
14. Porky Meyers, Moline, Illinois	212	130
15. Bill Morgan, Albany, Georgia	206	125
16. Marshall Tomblin, Montgomery, Alabama	202	
(Tie) Troy Anderson, Little Rock, Arkansas	202	
18. Joe Gray, Mableton, Georgia	186	
19. Joe Verbeck, E. St. Louis, Illinois	180	
20. Jim Vogelsburg, Lacey Springs, Alabama	165	



Top: M.J. Watkins, second place winner in the tourney, watches the weighing process carefully as he brings five dandies for a day's catch.

Bottom: It was cold all three days, but nearly all the contestants gamely stuck to it, whipping their lines out strongly for three full days. This contestant, ranked in the top 20 at the end of two days, has an official observer aboard.



Off and running! When 75 boats filled the water, 10 fishermen hear the starting gun, the motors fill the air, and the anglers are off in the Seminole big bass championship.

Sportsmen Speak...



Hunting Safety

My husband is a Marine, stationed in Viet Nam. Prior to Viet Nam, he was stationed in Rome, Georgia. While there, he wrote the following letter to you, but he never mailed it. I've just come across it, so I will mail it for him.

Mrs. George W. Longshore
Rome, Georgia

THE LAST OF A BAD BREED

HERE LIES THE LAST OF THE
BRUSH SHOOTERS HE TERRORISED
EVERY HUNTER IN THE WOOD
HE'D GET OFF HIS SHOTS EVERY
YEAR BE THEY BAD OR BE THEY
GOOD BUT ALAS THIS YEAR HE MET
HIS MAKER WHEN HE WENT OUT
AFTER HIS RACK FOR THE DEER
HE SHOT AT WAS ANOTHER BRUSH
SHOOTER AND AS HE WAS DYING
THE OTHER BRUSH SHOOTER
SHOT BACK

Although I know that the above verse I've written will never become a reality, I do feel that it should be read by both young and old hunters. Perhaps it would make a few of them stop and think before they shoot at what they think is a deer, but ends up another hunter or a farmer's prize bull. If hunting safety and conservation could spread as fast as the desire to hunt does, then most of the serious problems encountered by Game Wardens and Law Enforcement people would be solved if not completely eliminated. The U. S., state, and local government agencies are doing a great deal towards this end, but I feel that the most could be done by the parent or parents of a youngster when he first shows an interest in the sport. I personally know some persons that have taken their young into the woods in quest of game without the first how do you do about sportsmanship, safety, conservation, or game laws. Irresponsibility such as this leads to bad hunting practices throughout the United States, and for all I know, the world.

I have three young boys and though they are not of hunting age, I constantly speak of good hunting practices around them. While I know that they won't remember every thing that I tell them, I do know that the seeds of good hunting practices will have been planted, so that they will have already begun to grow before I get down to the brass tacks of teaching them how to be good sportsmen. In finishing this letter, I ask all parents across the States to join in and teach prospective hunters all of the good hunting practices that they can, and if they haven't the ability, then encourage their young to join a club that can put them on the right track to sportsmanship.

GY/SGT. George W. Longshore, Jr.
Vietnam
(Rome, Georgia)

Clark Hill

First let me say that in my opinion you have the finest magazine published. (For the sportsmen that is) I have enjoyed reading it for years, when it was free and now when it is on a subscription basis. I was glad to pay the fee to see it enlarged.

I agree that there must be laws to rid the

state of mutt dogs. (Dogged to Death-January issue)

I have had to give up hunting because of my health, but boy I can fish, and the Clark Hill Lake is the finest. You fellows are doing a tremendous job with the fish.

I would like to cooperate with the rangers in any way that I can, so I am reporting a brown trout catch. On March 20 I caught a brown trout 11½" long, 1 jackfish 16½" long. In January I caught a walleye, I suppose, 36½" long. I also landed what we call a hybrid white bass and a striper. (weighed 3 lbs.) All of these were in the same area.

As I understand it, all of these fish have recently been stocked in Clark Hill Lake by the Game & Fish Commission.

Thanks boys for a job well done.

J.W. Smith, Jr.
Augusta, Georgia

The State Game and Fish Commission stocked white bass, trout, and walleye in Clark Hill. The South Carolina Wildlife Resources Commission stocked striped bass and the hybrids in the reservoir.

Foxes

There has been a bill introduced into the Georgia House of Representatives to protect the fox in Walker County against mechanical devices to call fox.

The fox hunter complains about the fox being killed by hunters using mechanical devices to call up fox.

They never think about their dogs running and killing small deer. So why can't there be a law passed to stop hunters from running fox hounds while deer are too small to protect themselves.

After all what should be valued more, a fox that has no season on him and no bag limit or a deer that has only a seven day season in Walker County.

Levon Howard
LaFayette, Georgia

H.B. 1270 was introduced as a local bill by Representatives William Crowe of LaFayette and Wayne Snow of Chickamauga to prohibit the use of electronic callers for fox hunting in Walker County. The bill was passed by both houses of the legislature. S. B. 283 introduced by Senator Paul Brown of Athens would have closed the fox hunting season from April 20 to August 1, and would have specifically prohibited fox hunters from hunting on the lands of another without permission during

Gun Laws/continued

specifically call for well-publicized public hearings to allow any and all interested persons to present their views to the committee, such a course would be highly desirable.

We believe that hearings like that held by the Special Judiciary Committee during the last session will clearly show that the overwhelming majority opinion of persons interested enough to attend such sessions is opposed to the passage of any new additional gun restrictions.

While some proposed restrictions may now appear harmless enough to sportsmen, these measures are only fore-runners of later, harsher, measures which will ultimately have the effect of slowly strangling legal hunting and

the rest of the year. The bill was unfavorably reported by the Senate Agriculture Natural Resources Committee and subsequently killed.



Big Fish

Your article, "A Record Buster" excellent reading because it concerned people of our wonderful State. That's makes Game & Fish the top reading material in our family. It's about us and our neighborhood and our surroundings, of which we participate in ourselves

I am enclosing a picture of some participation at Lake Sinclair of a ten pound catfish caught with a minnow end of our dock in September 1967.

Thank you again for your excellent contribution in your publication.

Fred Harris
Greensboro, Ga.

target shooting as recreational sports in America. When this happens, a blow will be dealt to the financial support of most state and federal life conservation agencies. Federal excise taxes on the sale of sporting and ammunitions now given to states for wildlife restoration will decline. With firearms more difficult to obtain, the sale of hunting licenses also either decline or not rise proportionally to the normal increase in demand. Eventually, many wildlife species protected and restored by funds will suffer, and programs requiring and maintaining public hunting areas will wither away.

A black picture? It can be painted now.—J.M.

Sportsman's Calendar

MANAGEMENT STREAM SCHEDULE

Management Area	Stream	May	June	July	August	September
BLUE RIDGE	Jones (Artificial Lures)	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1)
	Montgomery	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	(Mon., Sept. 2)
	Nimblewill	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1)
	Noontootley (Artificial Lures)	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Sun., Sept. 1)
	Rock Creek	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Mon., Sept. 2)
CHATTahoochee	Chattahoochee	Sat., Sun.	Sat., Sun.	Sat., Sun.	Sat., Sun.	(Sun., Mon. Sept. 1 & 2)
	Dukes	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	
CHESTATEE	Boggs	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Dicks	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1)
	Waters	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Mon., Sept. 2)
LAKE BURTON	Dicks	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	
	Moccasin (Not stocked)	Sat., Sun.	Sat., Sun.	Sat., Sun.	Sat., Sun.	(Sun., Sept. 1)
	Wildcat	Sat., Sun.	Sat., Sun.	Sat., Sun.	Sat., Sun.	(Mon., Sept. 2)
WARWOMAN	Finny	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Saraha	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1)
	Tuckaluge	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	(Mon., Sept. 2)
	Walnut Fork and Hoods Creek	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1)

SEASONS NOW OPEN

Mountain Trout

Open Stream Season—April 1, 1968 through October 15, 1968.

Catch Limit—Eight trout of all species per person per day. Possession limit 10 trout.

Fishing Hours—30 minutes before sunrise to 30 minutes after sunset on all trout streams. Trout fishing is prohibited at night on all large reservoirs.

Management Area Stream Season—April 1, 1968 through Sept. 2, 1968 on designated days only as shown in the schedule. For a complete set of trout fishing regulations and directions to designated streams and the most popular trout streams, write to the State Game and Fish Commission, 401 State Capitol Building, Atlanta, Ga. 30334.

Lake Trout Season—There is no closed season on trout fishing in Georgia lakes with the exception of Dockery Lake.

Lake Trout Fishing Regulations—14 inch minimum size limit on all species of trout in Lakes Blue Ridge, Burton, Clark Hill, and Lanier. No size limit on trout in other lakes.

MAY 1968

	HIGH WATER				LOW WATER	
	A.M.	H.	P.M.	H.	A.M.	P.M.
Wed.	10:00	5.7	10:24	7.0	4:24	4:24
Thurs.	10:42	5.5	11:06	6.8	5:00	5:06
Fri.	11:30	5.4	11:54	6.6	5:42	5:54
Sat.			12:24	5.4	6:36	6:54
Sun.	12:54	6.5	1:24	5.6	7:36	7:54
Mon.	1:48	6.4	2:30	5.9	8:36	9:06
Tues.	2:54	6.5	3:36	6.5	9:30	10:00
Wed.	3:54	6.7	4:36	7.1	10:24	11:00
Thurs.	4:54	6.9	5:30	7.8	11:12	11:54
Fri.	5:48	7.2	6:24	8.3		12:00
Sat.	6:42	7.4	7:12	8.7	12:42	12:54
Sun.	7:30	7.4	8:00	8.8	1:36	1:42
Mon.	8:18	7.3	8:48	8.7	2:30	2:36
Tues.	9:06	7.0	9:42	8.4	3:24	3:24
Wed.	10:00	6.7	10:42	7.9	4:18	4:18
Thurs.	11:06	6.4	11:42	7.4	5:12	5:12
Fri.			12:06	6.1	6:06	6:18
Sat.	12:48	7.0	1:12	6.1	7:06	7:24
Sun.	1:48	6.6	2:18	6.1	8:12	8:36
Mon.	2:48	6.4	3:24	6.3	9:06	9:36
Tues.	3:48	6.2	4:18	6.6	10:00	10:30
Wed.	4:42	6.2	5:06	6.9	10:42	11:18
Thurs.	5:30	6.2	5:54	7.1	11:24	
Fri.	6:12	6.2	6:30	7.4	12:00	12:06
Sat.	6:48	6.2	7:06	7.5	12:42	12:48
Sun.	7:24	6.1	7:36	7.6	1:24	1:24
Mon.	7:54	6.0	8:12	7.5	2:06	2:06
Tues.	8:24	5.8	8:42	7.4	2:42	2:42
Wed.	9:00	5.7	9:18	7.3	3:24	3:18
Thurs.	9:36	5.6	10:00	7.1	4:00	4:00
Fri.	10:18	5.6	10:42	6.9	4:36	4:42

TIDE TABLE

MAY-JUN. 1968

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)	0 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 B. iff	0 55
Ogeechee River Bridge	3 50
St. Catherine Sound	0 25
Sapelo Sound	0 00
Brunswick Bar	0 00

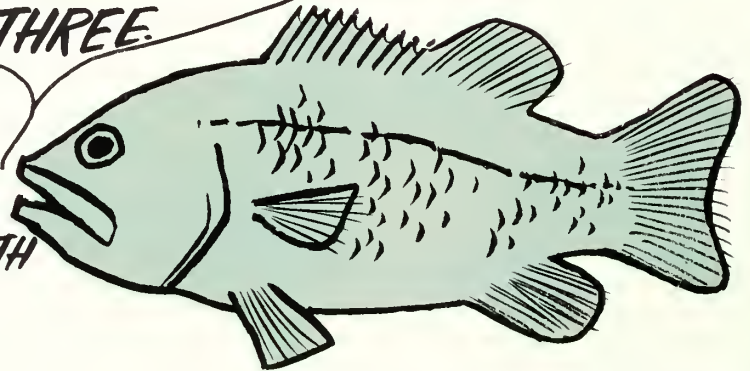
	First Quarter	Full Moon	Last Quarter	New Moon
MAY	5	12	19	27
JUN.	4	10	17	25

JUN. 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.	P.M.	H.	A.M.	P.M.
1. Sat.	11:06	5.6	11:30	6.7	5:18	5:30
2. Sun.			12:00	5.7	6:06	6:24
3. Mon.	12:24	6.6	1:00	6.0	7:00	7:24
4. Tues.	1:18	6.5	2:00	6.4	7:54	8:30
5. Wed.	2:18	6.5	3:00	6.8	8:54	9:36
6. Thurs.	3:18	6.5	4:06	7.3	9:48	10:30
7. Fri.	4:18	6.6	5:06	7.8	10:42	11:30
8. Sat.	5:18	6.8	6:00	8.3	11:36	
9. Sun.	6:18	6.9	6:54	8.6	12:24	12:30
10. Mon.	7:12	7.0	7:48	8.7	1:24	1:24
11. Tues.	8:06	7.0	8:42	8.6	2:18	2:18
12. Wed.	9:00	6.8	9:30	8.3	3:12	3:12
13. Thurs.	9:54	6.7	10:30	7.9	4:00	4:06
14. Fri.	10:48	6.5	11:24	7.4	4:54	5:00
15. Sat.	11:48	6.4			5:48	6:00
16. Sun.	12:18	6.9	12:48	6.3	6:36	6:54
17. Mon.	1:12	6.5	1:48	6.3	7:30	8:00
18. Tues.	2:06	6.2	2:42	6.4	8:24	9:00
19. Wed.	3:00	5.9	3:30	6.5	9:18	9:54
20. Thurs.	3:54	5.7	4:24	6.7	10:00	10:42
21. Fri.	4:42	5.7	5:12	6.9	10:48	11:30
22. Sat.	5:30	5.6	5:54	7.1	11:30	
23. Sun.	6:12	5.7	6:36	7.3	12:12	12:12
24. Mon.	6:54	5.7	7:12	7.4	1:00	12:54
25. Tues.	7:30	5.7	7:48	7.5	1:42	1:36
26. Wed.	8:06	5.7	8:24	7.4	2:24	2:18
27. Thurs.	8:42	5.8	9:00	7.4	3:00	3:00
28. Fri.	9:18	5.8	9:36	7.3	3:42	3:42
29. Sat.	10:00	5.9	10:18	7.1	4:18	4:24
30. Sun.	10:48	6.1	11:06	7.0	4:54	5:06

LOOK AT FISH SCALES FOR BIRTHDAY MARKS.

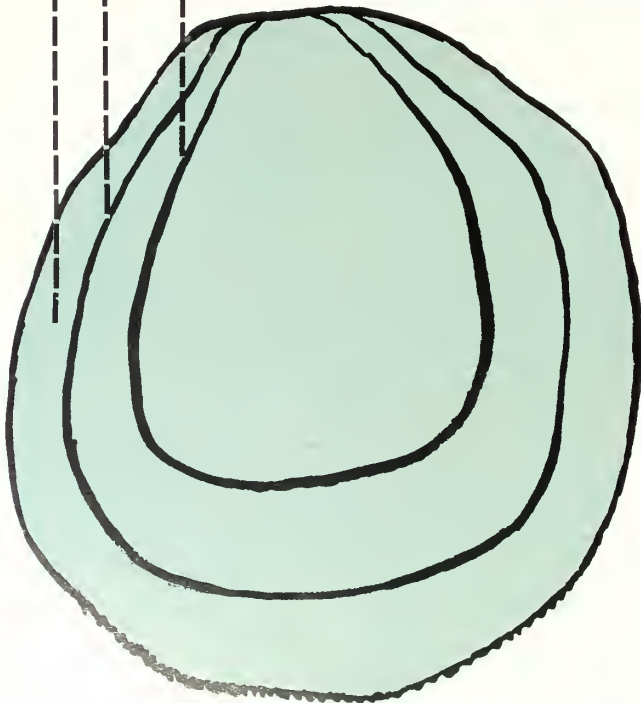
I'M TWO YEARS
OLD GOING ON
THREE.



IN THIRD YEAR OF GROWTH
SECOND YEAR RING
1ST YEAR RING

MAGNIFIED FISH SCALE

A FISH SCALE HAS RINGS
LIKE THE RINGS ON A TREE.

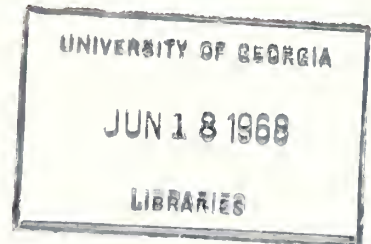


TO FIND THE AGE OF A FISH, REMOVE ONE OF THE SCALES THAT GROWS ON THE SIDE OF THE FISH. UNDER A MICROSCOPE, YOU CAN SEE DARKER RINGS ON IT. EACH DARKER RING MEANS THE FISH IS ONE YEAR OLD.

GEORGIA

VOL. 3, NO. 6 / JUNE, 1968

GAME & FISH





GEORGIA

GAME & FISH

June 1968

Volume III

Number 6



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation.

Contents

Welcome, OWAA	Dean Wohlgeomuth	1
Breakthrough For Stripers	Dean Wohlgeomuth	2
Be A Bowhunter!	Marvin Tye	6
Swimming Made Easy	Jim Morrison	10
Nottley—But Nice	Dean Wohlgeomuth	12
Better Boating	Marvin Tye	14
Outdoor World		15
Sportsmen Speak		16
Sportsman's Calendar		17

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Director, State Game & Fish Commission

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Wild Dog Study Committee

The creation of an interim Wild Dog Study Committee by the General Assembly at the end of its last session may be one of the most important acts taken this year by that body, at least from the viewpoint of a wildlife conservationist, livestock owner, or dog lover.

The committee of five House members to be appointed by the Speaker of the House will be given the job of gathering facts about Georgia's growing dog problems and making recommendations for possible legislation to help cure those ills.

Although some hunters, cattlemen, public health officials, and others have been aware of the damage caused by uncontrolled dogs for many years, the general public did not awake to the seriousness of the situation until just recently.

The disclosure of shocking results of studies recently completed showing the extent of damage to wildlife and livestock, as well as the threat to public health, have spurred public opinion to call for corrective action.

While further studies are underway to determine the full extent of dog predation on wildlife and livestock, the need for adequate controls is already clearly apparent. A survey by the Georgia Cattlemen's Association of its members showed that free-running dogs annually slaughter more than \$885,000 worth of calves alone, and cause loss of valuable meat poundage and milk production by harassing cattle. A preliminary survey on the Game and Fish Commission's Lake Russell Game Management Area showed extensive dog predation of deer that has been generally suspected over the entire state. Rabies control officers are fearful that Georgia's estimated 300,000 unvaccinated stray dogs will spread the disease from wild animals like raccoons in South Georgia or foxes in North Georgia to humans, especially children.

At this point, the greatest need is for all of the various groups involved to calmly sit down together with the legislative committee and work out a reasonable plan to solve the problem that can be supported by dog owners, sportsmen, cattlemen, public health officials, and wildlife conservationists.

One such plan which holds considerable promise has been tentatively proposed for study by the Georgia Animal Damage Advisory Committee, a group composed of representatives of the State Health Department, State Agriculture Department, State Game and Fish Commission, U.S. Fish and Wildlife Service, Cooperative Extension Service, and other interested agencies.

Under the plan proposed by the Advisory Committee, dog control would be placed under the supervision of the State Health Department's rabies control program. For the first time, state-wide legislation would be enacted requiring all dogs over three months old in Georgia to be vaccinated for rabies, with provisions for elimination of all unvaccinated dogs.

The program would be financed by a rabies control fee or "license" paid

continued on page 16

ON THE COVER: The bluegill bream is one of the most popular fish in Georgia's lakes and streams, especially in more than 60,000 farm ponds that dot the state. The spawning colors of the male make the bluegill one of the most beautiful of all fish. Ounce for ounce, he's one of the scrappiest fighters around on light tackle, and he pulls his weight in the frying pan, too. Painting by George Reiney, Columbus.

ON THE BACK COVER: Mountain Island Lake in beautiful Callaway Gardens, location of the 1968 convention of the Outdoor Writers of America, the first ever to be held in Georgia. Photo courtesy of Callaway Gardens.

PHOTO CREDITS: Ted Borg 2, 3, 4, 5, 6, 7, 8, 9, 12 and 13; Jim Morrison 10 & 11; Marvin Tye 14 b.; WRBL-TV, Columbus 15 t.

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WELCOME, OUTDOOR WRITERS OF AMERICA

by Dean Wohlgemuth, OWAA Convention Chairman

It's June, and Georgia is busting out over.

The State is literally going to be bursting at the seams this month with members of the Outdoor Writers Association of America.

About the middle of the month, the journalists in the field of outdoor sports will begin coming into the state, and by June 23, Sunday, there'll be up to 300 writers gathered together for their annual convention, to be held this year at

Callaway Gardens, Pine Mountain.

This is the first time such a convention has been held within the borders of this state. Its impact is one that is difficult to discribe.

But there is no question that the impact will be there, and it will be great.

These writers, the cream of the crop in their field, will take home with them stories about their adventures in our fair state. Their writings will appear in newspapers around the nation, as well as

magazines of national, regional, and even international scope.

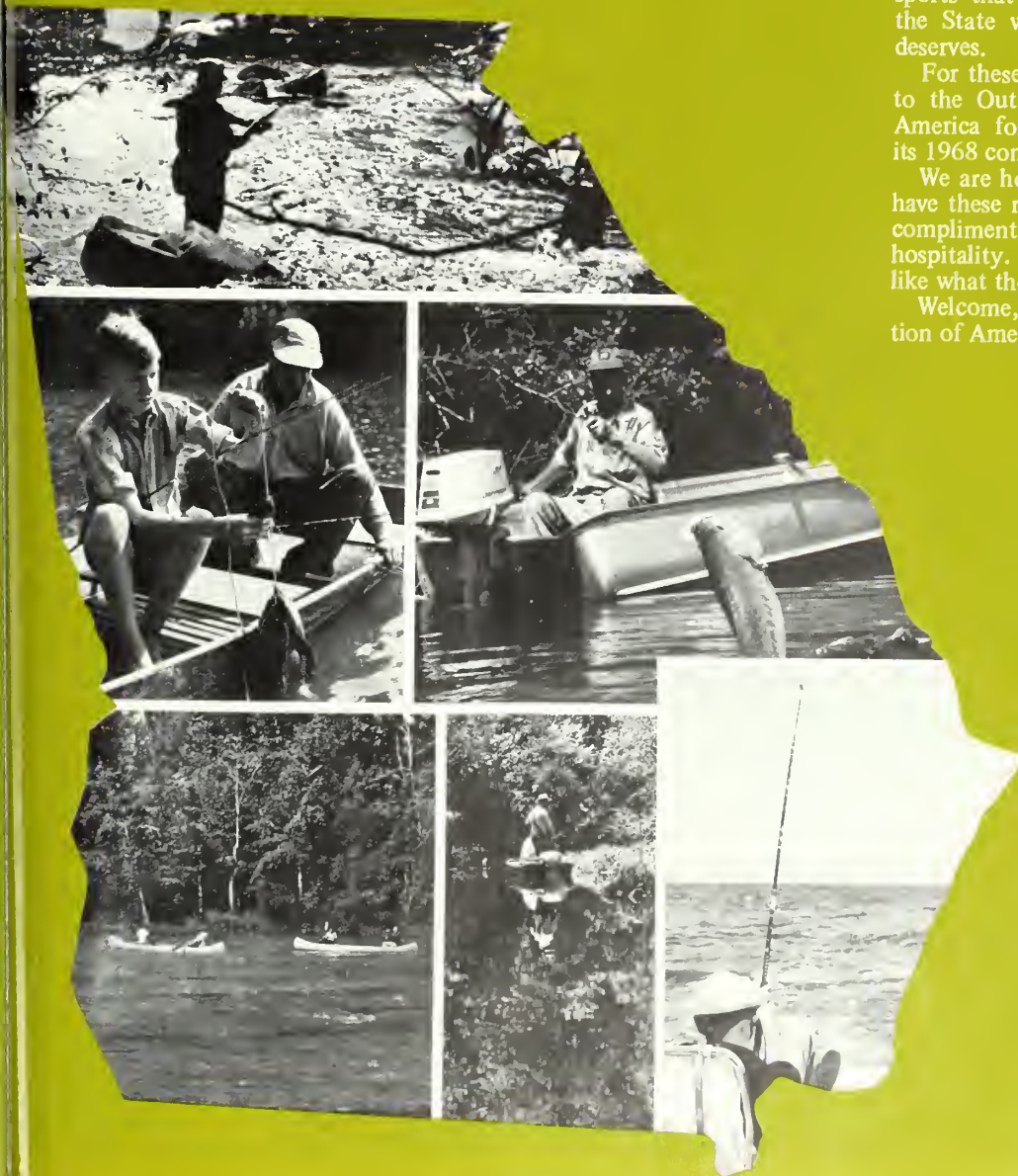
This will mean much to the state, in terms of attracting visitors. It will mean a tremendous boost to the economy because of the increase in the tourist industry. It will do much to improve Georgia's image throughout the nation to tell the world what Georgia has to offer.

We know that Georgia has much to provide her visitors, particularly those visitors who enjoy the out-of-doors and sports that outdoorsmen seek. At last, the State will get the recognition she deserves.

For these reasons, Georgia is grateful to the Outdoor Writers Association of America for selecting our fine state as its 1968 convention site.

We are honored, proud and happy to have these renowned writers pay us the compliment of coming to share our hospitality. We are confident they will like what they see here.

Welcome, Outdoor Writers Association of America! We're glad you're here!



BREAK-THROUGH FOR STRIPERS

By Dean Wohlgemuth

As soon as a large female striped bass is captured, a few eggs are extracted for examination, to determine how long it will be until the egg mature. Billy Bryant, hatchery superintendent of the Commission's Richmond Hill Fish Hatchery, takes a look at eggs under a microscope.



■ The atmosphere was almost identical to what you'd expect to find in the maternity ward of a hospital, where the expectant fathers were allowed inside the delivery room. . . and the anticipated birth was one that would set a world record. . . like perhaps, sextuplets were expected.

A cluster of men hovered around the tiny room, nervously watching. Then came the big moment. Success!

The Georgia Game and Fish Commission had scored a huge victory over nature. Georgia had become the fourth state in the nation, the fourth place in the world to successfully hatch striped

bass fry from eggs taken from a captured adult female.

For nearly six weeks, 10 men had worked feverishly to bring about the success. It took several tries before the first large egg-bearing female could be captured. She and several others, all about 30 pounds apiece, were caught

In order to speed up the process of maturing the eggs, a hormone is injected into the female. Biologist Glenn McBay inserts the needle while Dan Bunch, biological aide, holds the net.





About the Photographer

Ted Borg, 30, is the photographer who made the pictures illustrating this article. As the quality of these pictures indicates, Borg has done a wide variety of photographic work and received excellent training in his craft.

Prior to joining the staff of the Game and Fish Commission, he worked at Management Services, Inc., at Huntsville, Alabama, producing contract photography for the National Aeronautics and Space Administration's Marshall Space Flight Center. He also was a member of the photographic staff of Wyle Laboratories, has done a considerable amount of free-lance photography, and for a while, owned his own studio.

He has attended the U. S. Army Signal Corps Photo School, the U. S. Army Information School, and Germain's School of Photography in New York.

He is a member of the Professional Photographers of America, Outdoor Writers Association, and Southeastern Outdoor Press Association.

Borg is an enthusiastic fisherman who enjoys bass and trout fishing and really gets a thrill out of tangling with salt-water gamesters on light spinning tackle. He also likes to hunt and says he would have a hard time determining whether he enjoys hunting deer, ducks, or squirrels equally as much or, if one of these would be his favorite.

Ted resides with his wife, Dale, and their nine-month old daughter, Melanie, in Forest Park.

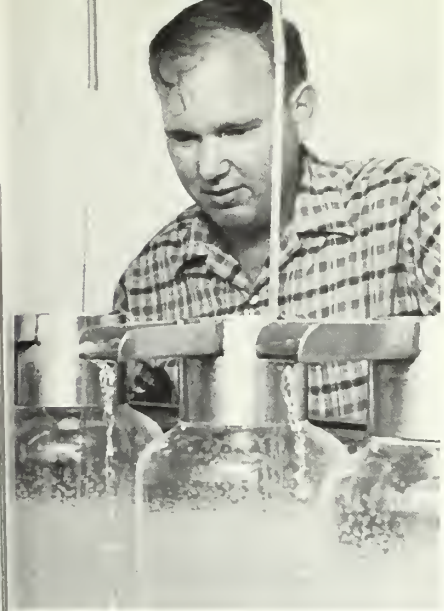


When mature, the egg sac must be removed from the female. Only a few fish need to be sacrificed, because millions of eggs are obtained from a single fish.

Once the egg sac is separated, the mature unfertilized eggs are stripped from it into a pan.

Fertilizing the eggs is accomplished by milking milt from a live male fish over the eggs. The male is unharmed by the process.





Once fertilized, the eggs are kept in a continuous flow of water in hatchery jars. The water assures constant temperature, removal of waste, and a supply of life-giving oxygen. Chief of Fisheries Leon Kirkland checks to make sure the eggs are doing fine.

After hatching, the tiny fry are placed in an aquarium. Zan Bunch looks for dead fry, removing them immediately.

Nearly as tiny as a pinhead, these newborn striped bass fry will stay in the aquarium for four to five days. Then they'll be kept in hatchery ponds for six months until reaching a size of five to eight inches, when they'll be ready for stocking in one of Georgia's reservoirs.

before the short spawning run season was over.

Taken from the Savannah Back River with shocking machines, the females were moved to the Richmond Hill Hatchery near Savannah, Ga. There, after tests to determine the maturity of the eggs they bore, at the proper time they were injected with a hormone that would speed up maturing of the eggs.

A man stayed on duty with the fish the last few hours, keeping constant watch until the time was perfect. Then the egg sac was removed and the eggs were ripped from the sac into a pan.

Milt was taken from a large male fish to fertilize the eggs immediately, then the fertilized eggs were put into hatchery jars. A constant flow of water, clean and kept at just the right temperature, was circulated over the eggs until hatching was completed. This normally takes about 48 hours, sometimes up to 72 hours.

Once the tiny fry, at birth about the size of a pin head, were completely hatched out, they were transferred to an aquarium where they were held four to five days. In this time they absorbed the egg sacs which were attached to them, providing food. Now they were big enough to feed on their own, on plankton.

Five days old, the tiny striped bass were put in hatchery ponds. They'll stay there until this fall, when they are four to five months old, and have reached a size of from five to eight inches. Then they'll be put in their permanent homes, one of Georgia's big reservoirs.

The brood strippers are taken primarily from the Back River at Savannah because fish caught here have an oily

taste and aren't palatable enough for table fare. This assures Georgia sportsmen that they aren't losing any fish they'd care to keep.

Why all the interest in striped bass? Glenn McBay, district fisheries biologist for coastal Georgia, explained it. "There isn't much we can do to manage fishing in large reservoirs. Other methods are expensive and extremely difficult. And often, other methods aren't too productive. But by adding a large, carnivorous (meat eating) game fish of prey, we can better control populations of shad and rough fish. Strippers eat more and larger fish than do bass and other game fish. This we feel is the best way we have of improving fishing in large reservoirs."

Of course, not all Georgia reservoirs will be suitable homes for striped bass. Temperature and water conditions aren't just right everywhere. And not all Georgia lakes are in need of a reduction of shad and nongame fish.

But some of the lakes in south and middle Georgia can, biologists feel, produce excellent habitat for strippers and good striped bass fishing.

Getting the most attention at first will be Lakes Seminole and Blackshear. Then other lakes farther north, such as Sinclair, will get striped bass. Some strippers have been stocked in two lakes, Blackshear and Seminole. Those fry were obtained from South Carolina's hatchery at Moncks Corner. South Carolina was the first state and is the leader in producing striped bass fry. But with demands on it from other states and other countries, it isn't possible for South Carolina to fill all of Georgia's needs.

Further, McBay pointed out, strippers

spawn perhaps three or four weeks earlier in Georgia rivers than in South Carolina. A supply becomes available earlier.

Other states which can now produce their own strippers are Virginia and North Carolina. They can't fill all the demands for fry either.

Georgia's facility for hatching strippers is small and, in truth, inadequate. But now that the Game and Fish Commission has proved its capability to produce fry, wheels are being set into motion to provide better facilities, which will soon be completed at the Richmond Hill Hatchery.

Excitement of the great victory probably added strength to the 10 men who brought about the history-making event. But after working several days around the clock, and taking turns of working 12-hour night shifts at the hatchery, the end of the four to six-week spawning season left the crew weary.

Working on the project were fisheries biologists Leon Kirkland, Glenn McBay, Larry Smith, Jim Nix, Herb Wyatt and Dan Holder, and biological aides Paul Laska, George Walker, Zan Bunch, and Bill Bryant.

But success was achieved. While there are still probably failures ahead, Georgia is on its way. In a few years, the Commission probably will be able to supply all the striped bass fry needed for the state's reservoirs.

And that will be a red letter day for all Georgia fishermen. Because then, in addition to having a larger, hard fighting game fish they didn't have before, they'll find that fishing for other game species will gradually improve, thanks to the striped bass!

be a bowhunter

by Marvin Tye

The First Step: Picking The Right Equipment



The patient archer can sometimes get a shot at a whitetail at very close range. Deer do not notice stationary objects, so if the wind is right, the archer may be able to bag his deer with the aid of very little cover.

■ Archery and hunting with the bow and arrow are two of the fastest growing sports in Georgia today. For those beginners who are outfitted properly, these sports can be enjoyable and rewarding. The poorly equipped archer is in for a rough time.

The selection of archery tackle is a very personal matter. What's just right for one person may be all wrong for another. Selecting the correct firearms for a certain type of hunting is much easier than selecting the proper bow for the same purpose. Just about anybody is physically capable of handling a .30/06 or similar deer rifle. Most people can practice with this arm until they can shoot it accurately enough to insure placing their shots in a deer's vital organs.

The same person who has a minimum amount of difficulty in mastering the .30/06 might be overwhelmingly frustrated if he were to try mastering a 55-lb. bow, especially if he has had no previous archery experience. While the .30/06 can be fired with a simple squeeze of the trigger finger, the bow must be drawn to the cheek, held for a second or so, aimed, and the string released with a smooth motion. Drawing this heavy bow for the first time could be compared with trying to bend a telephone pole.

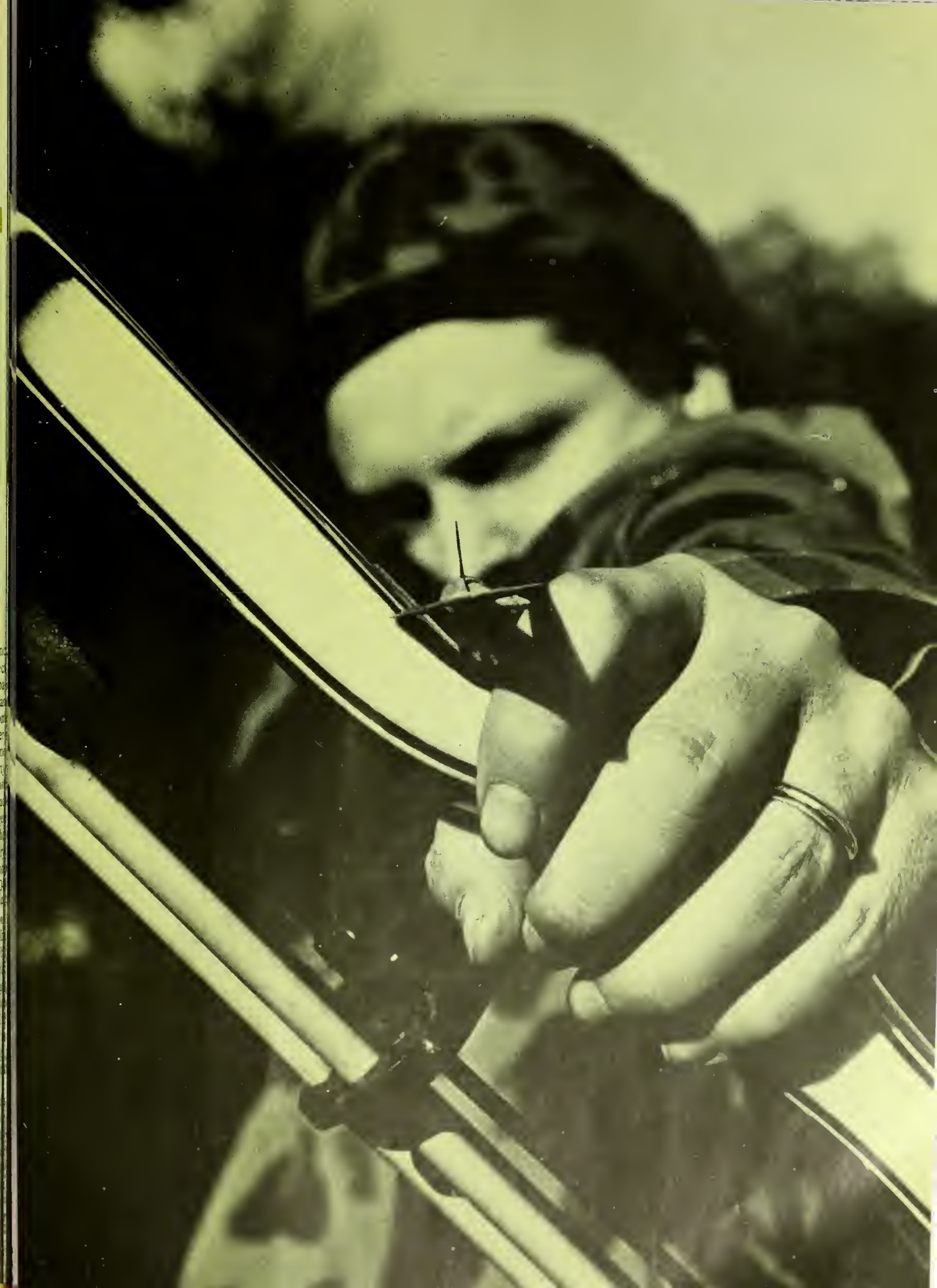
If the prospective bowhunter begins his training with a bow which he can handle with ease, then gradually works

up to a heavier weapon, he will have no problem. Perhaps the best way to select your archery tackle is to be accompanied on your shopping trip by an experienced archer. It pays to buy from a dealer who is also an archer, preferably after you have already had some shooting experience. There are many archery clubs in Georgia, and most members of these clubs would be glad to help a newcomer to their sport to get started on the right track. To find the name and address of the nearest archer club, contact Richard Parker, President, Georgia Bowhunter's Association, 260 N. Clark Drive, East Point, Ga., 30044.

A 55-lb. bow actually weighs considerably less than the average rifle. In the case of a 55-lb. bow, the 55-lb. "weight" refers to the force required to draw the string the length of the average hunting arrow, usually 28 inches. The average man should begin shooting a 20 to 35-lb. bow and work up to at least a 40-lb. weapon for serious deer hunting. It is illegal to hunt deer in Georgia with less than a 40-lb. pull bow.

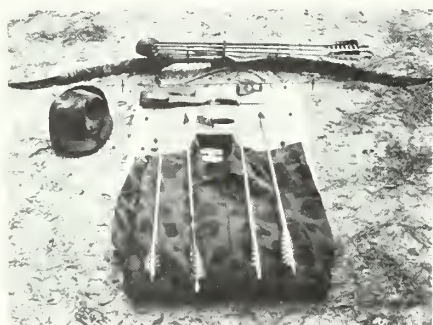
The ideal situation would be for the prospective bow hunter to purchase two bows, first buying one that is relatively inexpensive and light in weight. The bow could be used to learn the basic principles of shooting and to develop the muscles used in drawing a bow. These muscles are rarely used in any other activity.

The lighter bow can be used for

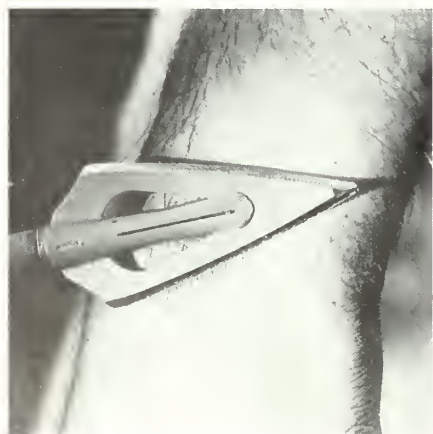




The whitetail deer is the animal most sought after by bowhunters. Many of the largest whitetails on record were bagged by archers. Camouflage clothing, tree stands, and quivers that hold each arrow individually are necessary items for the bowhunter.



Basic equipment for hunting the Georgia whitetail includes camouflaged bow and bow quiver, arm guard, finger tab, knife, sharpener for broadheads and knife, tree stand, camouflage suit, and fiberglass hunting arrows.



The broadhead on any arrow fired at deer or any other big-game animal should be sharp enough to shave hair from the hunter's arm. Broadheads should be resharpened after each shot.

target shooting, small game hunting, or bowfishing for rough fish, a sport that is growing in popularity each year.

When training up to the heavier bow, the archer should shoot only a few arrows a day at the beginning. He should never shoot the bow until he is tired. If he does this, he may develop bad habits such as flinching or snap shooting.

When he has mastered the hunting bow and can place all his arrows within a 10-inch circle, the archer is ready to begin hunting. The best training for hunting big game is stalking smaller animals such as squirrels and rabbits. This offers valuable practice in sighting game in the field, stalking in for a close shot, and firing at unknown distances. There is a difference in firing at fixed targets at known ranges and at animals in the woods. This difference can be realized only by actual experience.

The bowhunter has to overcome many challenges not even noticed by the rifleman. The rifleman can aim and fire his weapon with a minimum of movement at ranges of up to 100 yards or more. So long as he has a clear path through the brush for his bullet, the gunman can bag his quarry with a minimum of difficulty.

It's not so simple for the bowhunter. He must be within 30 yards for an effective shot in our thick forests. The smallest twig in its path will deflect an arrow and cause an otherwise perfect shot to miss. An archer on the ground at close range cannot raise his bow and fire when a deer is looking in his direction. The deer would spot this movement and be gone before the hunter could release his shaft. The archer must watch the deer and wait until it is very close, in the open, and looking in another direction before making his move. This calls for extreme patience. It has been estimated that the average archer may have to turn down as many as 50 shots which would be fairly simple with a rifle and wait for just one good chance to fire with bow and arrow.

This added challenge is what has made bowhunting so popular. The hunter who has bagged a good buck with the bow and arrow really feels that he has earned his venison. In Georgia, another reason for the growing popularity of archery hunting is the longer bow season, this year opening Oct. 1. This longer season is possible because archers kill so few deer in comparison to gun hunters, and since the archery season precedes the gun deer season opening Nov. 4, it gives hunters a good opportunity to scout the woods and find a good stand for the opening of the gun season. In addition, gun hunters who are worried about safety problems caused by the increasing number of gun deer hunters are turning to archery as a potentially safer sport with less competition.

During the five-year period from 1961 to 1966, the sale of archery hunting licenses in Georgia increased from 564 to 11,542. This is an increase of 2,046.5 percent! Final tabulation of sales for the 1967-68 season was not available at the time this article was written, but it is believed that the number of archery hunting license sales is continuing to grow.

Under some conditions, such as during a light rain or snowstorm which interferes with the deer's normally keen senses of sight, hearing, and smell, it is possible to spot a whitetail at a distance and quietly slip to within bow range. Usually this sort of thing is almost impossible. Dry underbrush and a carpet of crisp leaves prevent the stalker from moving silently. Constantly changing currents of air may carry the human scent to the deer, causing it to flee long before the bowman is in range. A deer cannot distinguish one still object from another, but seems to have an almost uncanny ability to detect motion.

To overcome these handicaps, many archers take stands either in a blind on the ground or in trees. Tree stands place the hunter in such a position that his scent is moved upward and away from the deer. Deer rarely expect danger from above, so the elevated hunter is out of sight. This stationary position also prevents the noise caused by stalk.

This type of hunting demands extreme patience, but sometimes pays off in a big way. Many trophy-size bucks have been bagged by archers hunting from stands, including the present Boone and Crockett world record for whitetails taken in fair chase with any weapon and the largest non-typical whitetail known to have been killed by any hunter in a sporting manner.

The non-typical record whitetail was bagged by Del Austin near Hastings, Neb. Del used a 45-lb. bow and fired from a platform nailed between two trees. Mel Johnson bagged his Boone and Crockett typical whitetail from a stand on the ground a few miles outside of Peoria, Ill. He was using a 72-lb. bow.

Bows of this weight are rarely required for deer hunting. African elephants, lions, and Cape Buffalo have been killed with a 70-lb. bow. In my opinion, the archer should use the heaviest bow which he can shoot accurately. If he cannot handle no more than a 40-lb. bow, the bowhunter would be wiser to shoot this weapon and limit his shooting to very close range than to strain to shoot a stronger bow. The strongest bow in the world is no good if you cannot lift anything with it.

No matter what weight bow is used, the arrows must be sharp enough to shave hair from the arms before they are shot at any big-game animal. A sharp

arrow causes massive hemorrhage and will bring death rapidly to the biggest animal. A dull arrow is neither as effective nor as humane.

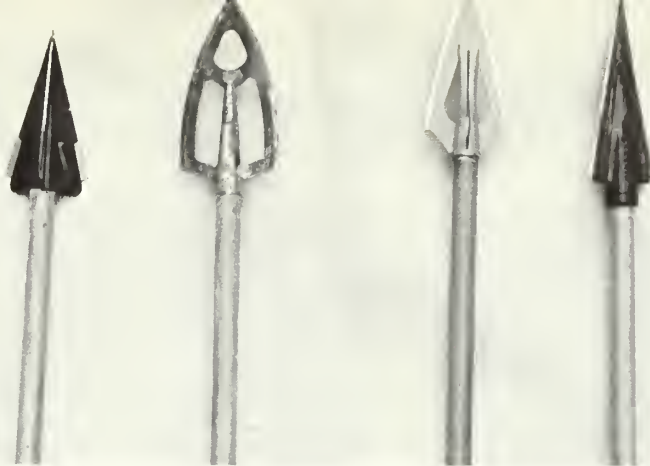
No matter what the weapon used, rifle or bow, the shot must be placed properly to bring the animal down. An arrow or bullet in the rib cage will strike either lungs, heart, liver, or large blood vessels or some combination of these and bring death quickly. A bullet or arrow back of the rib cage in the paunch will not kill as quickly and will probably result in a wounded animal that may or may not be recovered. The deer hunter should thoroughly master his bow or gun before hunting season and pass up all shots that are not likely to hit the rib cage.

The most popular broadheads on the market today are those with four cutting edges. These will take a knife-like edge and produce a large wound for maximum bleeding in a minimum amount of time. Arrow shafts are made of wood, fiberglass, or aluminum. Glass shafts are becoming more popular each year because they will not warp like wood, are uniform in weight, and do not break easily. Aluminum shafts are slightly more uniform in weight and are not subject to warpage, but are more expensive than either glass or wood.

In addition to bows and arrows, the bow hunter will need a sturdy armguard to protect his arm from the bowstring and to keep his clothing from slowing the string, a shooting glove or finger tab to protect his fingers, making shooting more comfortable, and a quiver. The quiver is a device for carrying arrows. It can be a leather case carried on the back, a small container strapped to the waist, or a device called a bow quiver which can be attached to the bow. The hunting bow quiver is most popular. It keeps the arrows within easy reach and does not interfere with shooting. One big disadvantage of the back or shoulder quiver is that the archer must make a considerable amount of motion to reach over his shoulder to withdraw an arrow. A deer would be much more likely to spot this motion than the motion required to draw an arrow from the bow quiver which can be held in almost any position. Another disadvantage of the back quiver is that it gets in the way of the stalker or the hunter on a tree stand who might wish to lean back against the tree.

The most popular bow quivers hold eight arrows and feature a hood that covers the sharpened broadheads. This is an important safety feature. The archer who carries arrows in a bow quiver with the broadheads uncovered is just inviting trouble.

Archers who hunt in secluded areas have found camouflage clothing to be a big help in deceiving the wily whitetail. The deer is much less likely to notice the broken image created by the pattern



Some of the more popular broadheads in use today include, from left: the 003 with razor blade inserts on each cutting edge, Ben Pearson's Deadhead, the Fred Bear Razorhead, and the Super Hilbre. All of these heads make large wounds which increase their effectiveness.

of spots than it would be to detect a solid mass of one color.

Camouflage should be avoided when hunting in an area containing a large number of other hunters, especially during the gun deer season.

Tournament archery is an exciting sport requiring much more specialized and more expensive equipment. The heavy-weight hunting bow is out of place at most events on the tournament range. Few men have the tenacity to fire one of these weapons a hundred times or more during an afternoon or morning. This amount of shooting is usually required in a tournament.

Tournament archers generally use lighter weight bows. Some of these bows are equipped with sights, stabilizer rods, and other accessories to improve their accuracy. The archer who believes tournament shooting will be his major interest should attend several of these events and talk to many competitors before buying his equipment. This will help to get him off to a good start.

Bowhunters in Georgia are allowed to take two buck deer or one buck and one doe during the special archery only season Oct. 1 through Oct. 26 in all counties or portions of counties having an open gun season for deer hunting.

The Big Buck Contest sponsored by the Georgia Game and Fish Commission has uncovered several bucks shot by gun hunters with a score of 150 or more on the Boone & Crockett system. Any buck scoring more than 140 taken with bow and arrow is eligible for listing in the National Pope & Young Club records for animals taken with a bow and arrow. Any deer taken with a gun or a bow scoring more than 160 is eligible for listing with the Boone & Crockett Club. There is a possibility that the next world record whitetail might come from Georgia. Who knows? This sort of speculation adds to the excitement of deer hunting, with a gun or a bow.

Whatever your interests, tournament or hunting, archery offers many hours of pleasant, exciting sport. Why not join those who have discovered this exciting pastime?



About the author

At 29, Marvin Tye is well qualified to write about archery, having shot a bow and arrow since age 12. During the past few years he has bow hunted in Alabama, Georgia, Tennessee, Nebraska, Arkansas, Texas, Utah, and California. Such animals as whitetail and mule deer, Spanish goat, javelina, a record-class black bear, and several varieties of small game and fish have been bagged by his arrows. He has written on the subject of archery for such nationally-distributed magazines as *Western Outdoors*, *Bow and Arrow*, *Archery World*, and *Archery*.

An enthusiastic fisherman also, he counts fishing trips to the Bahamas and Northern Saskatchewan among his most interesting angling experiences. He particularly enjoys bass fishing and angling for almost any saltwater species. He also enjoys hunting waterfowl, doves, and quail with his favorite shotgun.

He received his BA in Journalism from the University of Alabama in 1960. He has worked as a reporter for the *Annis-tan Star*, as editor of *Alabama Conservation*, associate editor of *Outdoor Nebraska*, outdoor editor of the *Huntsville News*, and technical writer for SPACO, Inc. and the Boeing Company.

Tye joined the Georgia Game and Fish Commission in February of this year as a staff writer for *Georgia Game & Fish* and as special publications editor. He and his wife, Mary Elizabeth, now reside in Decatur.

swimming made easy

By Jim Morrison

■ Birds were meant to fly, fish to swim, and men to walk, or so the theory goes.

Man evidently hasn't taken that restriction too seriously, since he now commonly does all three.

Except for riding on the land in an automobile, more humans lose their lives in the water than in the other two activities. But that hasn't stopped people from going down to the water in ever growing numbers.

In fact, an overwhelming majority of Georgia's four and a half million people come in contact with water deep

enough to drown themselves sometime in their lives, frequently quite often.

To illustrate this point, I sometimes use a simple demonstration in conjunction with my talk on water safety. Usually, I begin by asking all of the persons in the audience to stand who have ever done any duck hunting. This might produce one or two individuals in the average group, who are asked to remain standing. Then I call for all of the boat owners to stand, picking up five or six persons. Then for the fishermen, usually getting up half of the room or better. If that doesn't do it, then I ask for the swimmers, boat passengers, and persons who have ridden in their automobiles over a bridge on a lake or river! That gets 100 per cent response.

And all of these common everyday situations are potentially fatal, especially to the careless and unprepared.

In fact, more than 89 people drown-

ed in Georgia last year in assorted water accidents that usually boiled down to a lack of simple common sense.

One of the simplest and most effective rules of water safety is to wear a good U.S. Coast Guard approved life preserver at all times around the water, especially if you are elderly, crippled, a child, or an adult who can't swim.

Lumping persons who can't swim in with old folks, cripples, and kids may not sound very complimentary, but it's a valid comparison. In the water, especially over their heads, they are all equally likely to drown, and perhaps take a would-be rescuer with them.

You probably would be astonished to know how many people can't swim, even among those who spend a large part of their time around the water. Thousands of boat owners, fishermen, and other adults have never been able to swim a stroke, let alone tread water for five minutes.

And strangely enough, these people will go to any lengths to avoid learning to swim, or letting other people know that they can't swim.

One of the most graphic illustrations of this mysterious principle that I have ever seen occurred in my freshman year

Youngsters can begin to learn swimming even before they reach school age. Starting by sitting on the side of the pool and kicking their feet in the water, youngsters begin to get accustomed to it.



t the University of Georgia. Under University rules, each student is required to either be able to swim or to enroll in a swimming course. Since many non-swimmers can't be trusted to tell the truth, every student is required to swim the width of the pool in Stegman Hall unassisted and without stopping to get up on the shallow bottom.

Strangely enough, many of the non-swimmers were so frightened of being discovered or of having to take the swimming course that they frantically tried to swim across the pool anyway. Several had to be fished out by lifeguards after nearly strangling in the waist-deep water!

Since then, I have seen the same thing happen with adults.

Actually, it's not really fair to poke fun at or to hold the non-swimmer up to ridicule. For him, his fear of the water is a very real thing, not to be taken lightly. And while some of the time for his condition may lie in his own laziness, it is more than likely shared by others who never took time to teach him how to swim. Perhaps his parents never cared enough to see that he learned. Perhaps they themselves couldn't swim, or there was no good swimming area readily available to learn or time to practice.

Regardless of the reason, there is little excuse today for a non-swimmer who wants to learn swimming to continue being afraid of the water or of ridicule by his acquaintances who can swim. Many special classes for non-swimming adults taught by adult instructors are now readily available, including night or weekend classes for working adults.

For school age children, there is little problem in enrolling them in a professionally instructed or supervised swimming program, especially during the summer months. Most city and county recreation departments offer courses for both children and adults during the summer at public pools. Local chapters of the Red Cross, YMCA, YWCA, etc., are good possibilities, along with summer camp programs sponsored by private individuals, schools, or groups like churches, Boy Scouts, Girl Scouts, etc.

In addition, advanced lifesaving and water safety instructor courses are available through the sponsorship of the American Red Cross in many communities. Consult your local telephone directory for some of the agencies or groups named in this article for details. If you or your children can't swim, you owe it to yourself to learn. Knowing how to swim is one of the best "life guards" that you will ever have. 🐸



Individual attention by a qualified swimming instructor is important. Melissa Mayfield, a Red Cross trained water safety instructor, helps four-year old Nina Lynn Morrison into the water.



Learning to kick properly is taught by Decatur Recreation Department Director Bill Scearce.

Having them to put their heads under water and blow bubbles is a good way to start youngsters learning to swim. Dianne Kilbourne watches a young pupil at the City of Decatur Recreation Department's Glenlake pool.

■ The sun shone brightly, but even nearby mountains were almost beyond the comprehension of the eyes, hidden behind a shroud of blue haze.

The water was a deeper blue, so deep the lake seemed bottomless. A smoother surface you'll never see on a lake. It seemed that even an insect landing on its surface would shatter the 4,290-acre mirror.

This was my first visit to Lake Nottely, nestled in the mountains of north central Georgia, in Union County. It was last September, and the weather was ideal.

If ever a person sought peace in the world and found it, he must have gone to a place like Lake Nottely.

It almost seemed a sin to put such a deep ripple across the water as did the boat in which I was riding. Mike Bowling, then a fisheries biologist for the Game and Fish Commission, and his uncle Tom Bowling, operator of Nottely Boat Dock near the dam, showed me around the lake.

"This lake is full of bass," boasted Mike. "Come up and I'll show you some real bass fishing."

So up I went. And for two days I fished hard, but in that time I saw only



Anglers give their full attention to the serious business of outwitting Nottely's good population of big bass.

one small bass boated. It wasn't me that boated it.

Not satisfied, I vowed I'd return. This lake was too beautiful, like a mysterious woman. I'd have to solve the mystery of this lake. As did Mike, Leon Kirkland, chief of fisheries for the Commission, assured me there were plenty of bass here, and furthermore, the lake produced a very high percentage of large bass.

So this spring I found myself winding across mountain highways toward Nottely. This was a much shorter visit, allowing me only a half day to look things over.

I was a little encouraged on my arrival to find a few boats on the water. I remembered what Tom Bowling told me the previous fall. "If you don't see any boats on the lake, you might as well not bother to try fishing. You may go several days without seeing a boat. Then one day, all the fishermen in the

county show up. And sure enough, the fish are biting again. Don't know how they know, but these people around here sure know which days to go."

So Ted Borg, *Game and Fish* staff photographer and I, headed out with plenty of hope. It was another perfect day, but this time there was a slight riffle on the water. Actually, with water so clean and clear, I much prefer a riffle. Fish seem to spook much less easily.

By the time Ted had the pictures he wanted, it was late afternoon, so we began fishing in earnest. We'd had time for only a few casts before about 5 p.m.

Time faded quickly, and we weren't getting any fish. We were on the verge of giving up, when we drifted around a



A public launching ramp, built by the State Game and Fish Commission, is located near the dam end of the lake, at a privately operated boat dock. The concrete ramp provides an easy place to launch a boat.

point into a cove which was filled with good cover. "Let me try just a few minutes longer," I told Ted.

Tying on a new plug, a shallow runner, I cast near a bush that was just barely showing above the water. The plug just barely had a chance to get wet. It was met, right at the surface of the water, by a hungry bass.

The fish made a couple leaps, giving me a good look at him, and struggled to get back toward the bush he'd left. I got him out in the open, and shouted for Ted to get his camera ready.

Dropping his rod, Ted scrambled for the camera. You guessed it. The bass raced around the boat, and managed to get himself tangled in Ted's line, still out in the water. Before either of us knew what happened, my line went limp. So did I. He wasn't a monster, but he'd have gone perhaps four or five pounds. He'd have been enough to save the day.

With renewed vigor, Ted and I worked our rods until nearly dark, but finally gave up in defeat. Nottely was still being a naughty girl, hiding her secrets from me.

Naughty or not, she's a lovely lady. And she has that inviting look about her that is irresistible to the angler who likes peace and quiet, a calm lake surrounded by scenic mountains.

She's not as deep as she appears. "Nottely is the most shallow of all the mountain lakes," Leon Kirkland told me. "That lake is more comparable to Lakes Allatoona, or Sinclair in middle Georgia, than to its mountain counter-

parts, as far as depth goes.

"For that reason, Nottely does not have a second story fishery," he said. That is, the lake is not deep enough to have water cool enough to support trout. Being one of the three TVA lakes in Georgia along with Blue Ridge and Chatuge that are in the Tennessee River drainage system, Nottely has a few native smallmouth bass, but the Commission has also stocked walleyes and white bass in the lake, but good populations have not yet been achieved. Crappie fishing there is very good.

Nottely once had more facilities than it does at the moment. Perhaps the building of newer, bigger lakes in other parts of the state has cost this mountain beauty some popularity, for it is a good distance and over winding roads to Nottely from Georgia's main population centers. If you want to rent a boat, Nottely Boat Dock has the only such facility I was able to find. No overnight facilities are there, but there are motels and cottages available along the lake shores, and nearby Blairsville can provide other needs. There are five boat launching ramps scattered around the lake, including a Game and Fish Com-

NOTTELI



This is the kind of stringer you can sometimes find from Lake Nottely. Tom Bowling, operator of Nottely Boat Dock, holds up a fine catch of bass.

mission ramp at Nottely Boat Dock near the dam, which is open to the public at no charge.

Don't sell the fishing short just because I struck out. I saw pictures of big strings of good sized fish, and heard stories of fish in the eight to 10 pound class taken just a few days before my latest excursion.

Yes, Nottely was naughty to me. She didn't give up her secrets of where and how to take the bass. But she's nice—nice, quiet and peaceful, nice to look upon, nice to be around. So nice, that I'll have to go back and see if I can solve the mystery of her big bass! 🐟

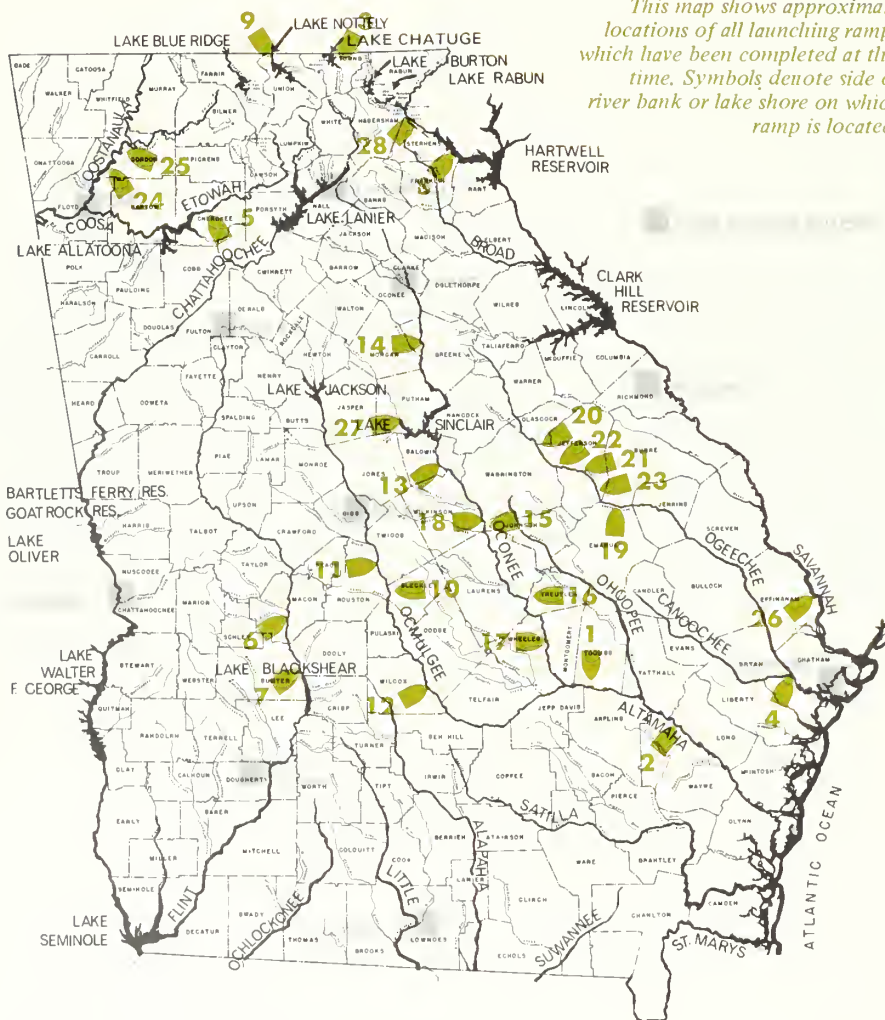
UT NICE

Wohlgemuth



LAUNCHING RAMPS... BETTER BOATING

By Marvin Tye



This map shows approximate locations of all launching ramps which have been completed at this time. Symbols denote side of river bank or lake shore on which ramp is located.

Game and Fish Commission personnel are constructing numerous launching ramps across the state. This one is on the west bank of the Flint River off Highway 128 near Roberta.

arranged, sites are often constructed just off state highways or other roads, eliminating the extra cost of road construction.

Location of access area sites is determined primarily by surveys showing actual need in an area that is heavily used by boaters, or by requests from counties where a need is evident.

Georgia contains 3,000 miles of major warm water streams. When the project is completed, 233 or more ramps will have been constructed. The program was planned as a four-year project.

The launching ramps are fabricated by pouring a concrete base, then attaching prefabricated concrete logs which extend out into the water as far as necessary for adequate boat launching. Ramp fabrication usually requires about five days work for a crew of five to seven men.

LAUNCHING RAMPS COMPLETED

	BODY OF WATER	COUNTY	LOCATION
1	Altamaha	Toombs	Gray's Landing
2	Altamaha	Wayne	Jesup
3	Chatuge	Towns	Highway 76
4	Demeris	Bryan	Richmond Hill
5	Etowah	Cherokee	Hwy. 5
6	Flint	Macon	Hwy. 49
7	Flint	Sumter	Reeves Landing
8	Hartwell	Franklin	Little Gumbo Creek
9	Nottely	Union	At Dam
10	Ocmulgee	Bleckley	Cochran
11	Ocmulgee	Houston	Hwy. 96
12	Ocmulgee	Wilcox	Abbeville
13	Oconee	Baldwin	Milledgeville Hospital
14	Oconee	Greene	U.S. #78
15	Oconee	Johnson	20 Mi. North of Dublin; Buckeye
16	Oconee	Treutlen	Pete Davis River
17	Oconee	Wheeler	Hwy. 280
18	Oconee	Wilkinson	Balls Ferry
19	Ogeechee	Emanuel	Between Herndon & Midville
20	Ogeechee	Jefferson	Highway 88
21	Ogeechee	Jefferson	Between Hwy. 1 & 17
22	Ogeechee	Jefferson	U.S. #1
23	Ogeechee	Jefferson	Ga. #17
24	Oostanaula	Gordon	Hwy. 156
25	Oostanaula	Gordon	Calhoun
26	Savannah	Effingham	Abercorn Creek
27	Sinclair	Putnam	Murder Creek; 173
28	Tugaloo	Stephens	Below Yonah; 114

■ Georgia has a great abundance of water suited for fishing, boating and other water sports. With a growing interest in these sports, it was only natural that a program should be initiated to provide access to as much of this waterway as possible.

The Georgia Game and Fish Commission has launched a long-range program to provide a minimum of one public access area, or launching ramp, for every 15 miles of stream or 1,000 acres of reservoir. This program was begun two years ago and 28 ramps have been constructed so far.

Ramps have been constructed on the Ogeechee River, Oconee River, Altamaha River, Etowah River, Oostanaula River, Flint River, Tugaloo River, Ocmulgee River, Abercorn Creek,

Lake Chatuge, Nottely Lake, Lake Hartwell, Lake Sinclair, and Demeris Creek.

The present goal of the Game and Fish Commission is to construct some 233 ramps across the state. In addition to the 28 already completed, 15 are planned for construction in the immediate future and about 25 other sites are being negotiated for.

Under the present system, the Game and Fish Commission works in cooperation with the county government in the county in which the ramps are to be constructed. The county deeds the land on which the ramp is located to the Game and Fish Commission. The county must own or have a twenty-year lease on a road to the site and a two-acre parking lot. Where it can be

the outdoor world



Eufaula Bass Tournament

The Lake Eufaula National Bass Tournament will be held on June 20, 21, and 22 at Lake Eufaula (Lake Walter F. George as it is more commonly called in Georgia) on the Georgia-Alabama border. Winners' prizes include handsome trophies and more than \$2,000 in cash. For more information on this tournament, contact Ray Scott, Bass Anglers Sportsman's Society, P. O. Box 3044, Montgomery, Ala. 36109.

Lake Acworth Reopens

Lake Acworth near Marietta will reopen for fishing July 3 at 6:00 a.m. This lake has been closed for the past two years following a restocking program conducted by the Game and Fish Commission. Fishing will be allowed only from the bank until Aug. 31. After this date, fishing will also be allowed from boats.

Federation Directors Meet

Felton Mikel of Statesboro was named as outstanding vice president of 1967 at a meeting of the Georgia sportsmen's Federation May 19 at the Lake Burton Fish Hatchery.

Jim Adams, president of the federation, announced that Oct. 1, 1968 would be the deadline for nominations in the annual Conservation Awards Program. The categories open are State Conservationist of the Year, and conser-



"And then there was the time..." Ridley Bell (on the left) and his guests Bill Stembridge (center) and Colonel Lester, discuss fishing feats, and you can bet there's a "Flip Tail" lure at the bottom of it. Bill and Colonel (that's his first name) are partners in the manufacture of the famous lures, and past masters at the fine art of bass fishing. The scene is the set of "Sportsman's Lodge" program on WRBL-TV, Columbus.

THERE'S A LOT OF SPORT AT "SPORTSMAN'S LODGE"

By J. Hall

If you're an outdoorsman and live in the Columbus area, chances are your wife has to delay supper on Saturday evenings until the "Sportsman's Lodge" show is over on Channel 3. That is, unless she's in the living room watching it with you.

Hosted by Ridley Bell, who says his full time preoccupation is fishing, boating, and other outdoor activities (when the fish aren't biting he sometimes serves as Station Manager), the outdoors show is entering its eighth season on WRBL-TV, and claims a large and enthusiastic audience.

Ridley and his guests, who include local folks as well as many big-name sportsmen, chat on the front porch of a cleverly designed set which looks like a rustic lake-side cabin. Just the sort of place you'd expect old fishermen to get together and spin yarns.

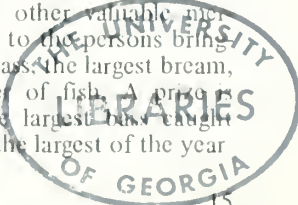
The show is not devoted entirely to fishing, although a detailed Game and Fish Commission report on fishing and water conditions of the streams and lakes in south Georgia is an included feature on each program. But "Sportsman's Lodge" touches on all phases of outdoor sports... boating, hunting, archery, etc. Outstanding sportsmen are interviewed each week, and frequently give demonstrations of their particular skills, such as casting, use of lures, fly tying, taxidermy, and a wide range of activities.

One of the weekly highlights of the show is a contest. Prizes of rods, reels, tackle boxes and other valuable merchandise are given to the persons bringing in the largest bass, the largest bream, the largest stringer of fish. A prize is also given for the largest fish caught each month, and the largest of the year.



vationist of the year in the fields of Wildlife, Soil, Water, Forest, Education, Youth, Communications, Organizations, and Legislative Conservationist of the Year. Nominations for these awards could be submitted to Tilmon Wilbanks, Rt. 4, Canton, Ga.

The federation also approved a program to accept business associate members for a fee of \$5. This associate membership would enable small businessmen to purchase group insurance for their employees at reasonable rates.



Sportsmen Speak...



Canoochee Pollution

I wish to register a complaint with your office about the polluted state of the Canoochee River near Claxton, Georgia, starting just below the Claxton Poultry Company and extending to my father's place a few miles downstream. There has been a serious "fish kill" in this river for several years in a row now, and at this time of year when the spawning season is on, it is a tragedy for our game fish to be dying of this pollution.

This poultry operation has been ordered by the Water Quality Control Board to install a purifying system, and hopefully, it is to be in operation by next year. Meanwhile, my question is this: Who is going to pay for the restocking of our valuable game fish being destroyed in this once untainted stream, and is there any legal way to levy a fine or penalty against this or any other commercial firm who pollutes a stream in this manner?

Speaking for many other Georgia sportsmen, we are burned up over this, knowing that if we would violate our game laws such as dynamiting, seining, "liming", etc., we would stand to get a fine or jail sentence. Yet since this poultry processing plant has been in operation, thousands of game fish and other marine life have been destroyed, never to be replaced, and the plant continues to dump wastes into the river without fine or penalty until its purifying system becomes operational.

In addition to the destruction of fish life, the white sands along the river bank have turned black, and in the heat of the summer, a green scum appears on the surface, making the river generally unfit for fisherman and swimmers alike.

If the Game and Fish Commission is left with the expense of restocking this river, then that will inadvertently mean the Georgia sportsman as taxpayer will pay the bill. This just isn't right, and I would like to hear from you and other sportsmen about this.

Thanks very much, and I enjoy your magazine tremendously.

R. B. Smith
Milledgeville, Georgia

A provision was included in the revision of Georgia's game and fish laws passed by the General Assembly this year which would have given the State Game and Fish Commission authority to take civil action for damages against water polluters who killed fish. However, the provision was amended in the Senate Agriculture and Natural Resources Committee to apply only to streams flowing into State fish hatcheries.

The Canoochee River is polluted from three main sources: the Swainsboro Printing and Finishing Company, the City of Claxton, and the Claxton Poultry Company. Treatment facilities are in the process of being built at both Claxton locations under orders of the State Water Quality Control Board. The Swainsboro Company is under court orders to clean up its pollution or close up. The Swainsboro case was a major victory for Georgia's water pollution law, and its result has been widely noted by industrial polluters as "the handwriting on the wall."

Poacher's Spring

Remember the article "Poacher's Spring"? (April '68) Who are the innocent by-standers?

Anyone who can stand by and watch someone break the law in any way or can let our wild dogs do likewise, is not innocent. I can't see how anyone will favor wild dogs that year-round kill our game and animals. I love dogs of all kinds and would like to see something done to find homes for them.

I think Mr. Ronald S. Roberts of Augusta, Georgia, is on the right track. Let's do our duty and a good deed. Stop wild dogs.

Carl E. Carter
Augusta, Georgia

In regards to the article, "Poacher's Spring", of Georgia Game & Fish, how can it be said that sportsmen can over net or over catch their limit, when the sorry river is so filthy that if you caught anything you couldn't eat it anyway.

William K. Martin
Warner Robins, Georgia



"Dogged" Deer

Just a line to let you know that Hubert L. Newton of Newton's Bait & Tackle has agreed to be a weighing station for the Fishing Contest this year. His address is 366 Savannah Ave. Statesboro, Ga. 30458.

Re: Snapshot included, just wanted you to know that 'Dogs' don't catch all the deer in South Georgia & South Carolina. This one was stopped with #1 Buckshot in Winchester 1200 Pump with 22" Buck Barrel. Dogs were running him but he was 5 minutes ahead of them.

Yours for more & better sportsmen.

Billy Tyson
Bulloch County Sportsmen's Club
Statesboro, Ga.

Bait and tackle stores, marinas, etc. who wish to be official weighing stations for the Georgia fishing contest may do so by contacting their nearest affiliate club of the Georgia Sportsmen's Federation or the State Capitol office of the Game and Fish Commission for a supply of contest entry blanks.

continued from inside front cover

Department through the local county health department. The fee would be modest, perhaps \$1.00 for male dogs and spayed females, and \$2.00 for unsprayed females, or whatever reasonable amount would be required to pay for the costs of the wild dog control program.

In order to obtain the dog license and a collar tag, dog owners would first be required to have their dogs vaccinated by a licensed veterinarian, and purchase a state license tag at the same time. Penalties would be provided in the law for dog owners failing to buy a license for each of their dogs, or for allowing them to run loose uncontrolled, especially without wearing a collar with the numbered identification tag on it,

Framing Covers

In an earlier issue of "Georgia Game and Fish" magazine, an offer for front and rear cover pictures suitable for framing was published. Most people I talked to about these pictures thought they were excellent and would really dress up a man's den, however most shied away from the high price set for these pictures. If the responsible people were a little more considerate, they would paste the mailing label on the front side along the lettered portion of the cover, then those that wanted to could use the rear cover picture which oftentimes is well worth framing. I've tried to remove my mailing labels without damaging the picture without success. I know that a lot of people would appreciate some thought on this.

I think you people have done a wonderful job with the Game & Fish Magazine. I was glad to see the coverage of the Georgia Bowhunter Heavy Tackle shoot. I think if more uninformed people could see one of these archery shoots they would have a better understanding of this wonderful sport. Keep up the good work.

Victor J. Simmons
Macon, Ga.

At Mr. Simmons' suggestion, the company that mails the magazine has been instructed to apply the labels in a location that will not damage the covers for framing.

Sportsman's Paper

I just want you to know how much I appreciate you giving us a plug; it was most generous of you. (Outdoor World, April, '68)

You gentlemen there at the State Capitol are doing a great job and I'm sure that all of our Georgia Sportsmen appreciate your efforts.

Robert R. Hollingsworth
Editor,
THE DIXIE SPORTSMAN
Sylvania, Georgia

In Memoriam

Tom H. Bush, Bainbridge, Ga., creel checker on Lake Seminole, died April 28, 1968. Mr. Bush was employed by the Commission during the past five years. He is the brother of Chief Steve H. Bush, of the Commission's Dawson District.

perhaps in addition to the owner's name and address. Another possible feature would be to make the dog owner responsible for damage caused by his dog.

Using revenue from the sale of licenses to the estimated 500,000 owned dogs in Georgia, a control program could then be established to provide for a dog pound to hold and dispose of unwanted animals and provide for one or more rabies control officers in each of the health districts of the State Health Department to actively enforce the law.

We believe that such a plan is workable, and that eventually it would go a long way toward solving Georgia's dog problems. Now is the time to work out the details.—J.M.

Sportsman's Calendar

SEASONS NOW OPEN

Mountain Trout

Open Stream Season—April 1, 1968 through October 15, 1968.

Creel Limit—Eight trout of all species per person per day. Possession limit eight trout.

Fishing Hours—30 minutes before sunrise to 30 minutes after sunset on all open trout streams. Trout fishing is allowed at night on all large reservoirs.

Management Area Stream Season—May 1, 1968 through Sept. 2, 1968 on designated days only as shown in the chart. For a complete set of trout fishing regulations and directions to managed streams and the most popular open streams, write to the State Game and Fish Commission, 401 State Capitol, Atlanta, Ga. 30334.

MANAGEMENT STREAM SCHEDULE

Management Area	Stream	May	June	July	August	September
BLUE RIDGE	Jones (Artificial Lures)	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Montgomery	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Nimblewill	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Noontootley (Artificial Lures) (Catch and Release)	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
	Rock Creek	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
CHATTAHOOCHEE	Chattahoochee	Sat., Sun.	Sat., Sun., Wed.	Sat., Sun.	Sat., Sun.	(Sun., Mon. Sept. 1 & 2)
CHESTATEE	Dukes	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	
	Boggs	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Dicks	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
LAKE BURTON	Waters	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Dicks	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	
	Moccasin (Not stocked)	Sat., Sun.	Sat., Sun.	Sat., Sun.	Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
	Wildcat	Sat., Sun.	Sat., Sun.	Sat., Sun.	Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
WARWOMAN	Finny	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Sarabs	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Tuckaluge	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Walnut Fork and Hoods Creek	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)

Lake Trout Season—There is no closed season on trout fishing in Georgia lakes with the exception of Dockery Lake.

Lake Trout Fishing Regulations—14 inch minimum size limit on all species of trout in Lakes Blue Ridge, Burton, Clark Hill, and Lanier. No size limit on trout in other lakes.

JUN. 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1. Sat.	11:06	5.6	11:30	6.7	5:18	5:30
2. Sun.			12:00	5.7	6:06	6:24
3. Mon.	12:24	6.6	1:00	6.0	7:00	7:24
4. Tues.	1:18	6.5	2:00	6.4	7:54	8:30
5. Wed.	2:18	6.5	3:00	6.8	8:54	9:36
6. Thurs.	3:18	6.5	4:06	7.3	9:48	10:30
7. Fri.	4:18	6.6	5:06	7.8	10:42	11:30
8. Sat.	5:18	6.8	6:00	8.3	11:36	
9. Sun.	6:18	6.9	6:54	8.6	12:24	12:30
0. Mon.	7:12	7.0	7:48	8.7	1:24	1:24
1. Tues.	8:06	7.0	8:42	8.6	2:18	2:18
2. Wed.	9:00	6.8	9:30	8.3	3:12	3:12
3. Thurs.	9:54	6.7	10:30	7.9	4:00	4:06
4. Fri.	10:48	6.5	11:24	7.4	4:54	5:00
5. Sat.	11:48	6.4			5:48	6:00
6. Sun.	12:18	6.9	12:48	6.3	6:36	6:54
7. Mon.	1:12	6.5	1:48	6.3	7:30	8:00
8. Tues.	2:06	6.2	2:42	6.4	8:24	9:00
9. Wed.	3:00	5.9	3:30	6.5	9:18	9:54
0. Thurs.	3:54	5.7	4:24	6.7	10:00	10:42
1. Fri.	4:42	5.7	5:12	6.9	10:48	11:30
2. Sat.	5:30	5.6	5:54	7.1	11:30	
3. Sun.	6:12	5.7	6:36	7.3	12:12	12:12
4. Mon.	6:54	5.7	7:12	7.4	1:00	12:54
5. Tues.	7:30	5.7	7:48	7.5	1:42	1:36
6. Wed.	8:06	5.7	8:24	7.4	2:24	2:18
7. Thurs.	8:42	5.8	9:00	7.4	3:00	3:00
8. Fri.	9:18	5.8	9:36	7.3	3:42	3:42
9. Sat.	10:00	5.9	10:18	7.1	4:18	4:24
0. Sun.	10:48	6.1	11:06	7.0	4:54	5:06

TIDE TABLE

JUNE-JULY 1968

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
Ossaw 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
JUNE				
JULY	4	10	17	25
	3	10	17	25

JULY 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1 Mon	11 37	5.9	11 55	6.4	5 31	5 55
2 Tues			12 31	6.1	6 19	6 55
3 Wed	12 49	6.2	1 31	6.4	7 13	7 55
4 Thurs	1 43	6.0	2 31	6.6	8 13	9 01
5 Fri	2 43	5.9	3 37	7.0	9 18	10 07
6 Sat	3 49	5.9	4 43	7.3	10 13	11 07
7 Sun	5 01	5.9	5 49	7.7	11 07	
8 Mon	6 01	6.1	6 49	7.9	12 07	12 07
9 Tues	7 01	6.3	7 43	8.1	1 06	1 07
10 Wed	7 55	6.4	8 31	8.0	2 01	2 01
11 Thurs	8 49	6.5	9 19	7.4	2 49	2 55
12 Fri	9 43	6.5	10 13	7.4	3 37	3 49
13 Sat	10 31	6.4	10 55	7.0	4 25	4 37
14 Sun	11 25	6.3	11 49	6.5	5 13	5 25
15 Mon			12 13	6.2	5 55	6 13
16 Tues	12 31	6.1	1 01	6.1	6 43	7 13
17 Wed	1 19	5.7	1 49	6.1	7 31	8 07
18 Thurs	2 07	5.3	2 43	6.1	8 25	9 01
19 Fri	2 55	5.1	3 37	6.1	9 13	9 55
20 Sat	3 49	4.9	4 31	6.3	10 01	10 49
21 Sun	4 49	4.9	5 19	6.5	10 50	11 37
22 Mon	5 43	5.1	6 07	6.7	11 37	
23 Tues	6 31	5.2	6 49	7.0	12 25	12 30
24 Wed	7 07	5.4	7 25	7.1	1 13	1 07
25 Thurs	7 49	5.6	8 07	7.2	1 55	1 55
26 Fri	8 25	5.9	8 37	7.2	2 31	2 37
27 Sat	9 00	6.1	9 19	7.7	3 07	3 19
28 Sun	9 43	6.3	10 01	7.7	3 43	4 11
29 Mon	10 25	6.5	10 43	6.8	4 25	4 44
30 Tues	11 13	6.6	11 31	6.6	5 01	5 11
31 Wed			12 07	6.2	5 49	6 01



GEORGIA

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GAME & FISH



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GEORGIA

GAME & FISH

July 1968

Volume III

Number 7



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation.

Contents

New Worlds To Conquer	J. Hall	1
Count Your Fish	Marvin Tye	4
Unmasked: The Spotted Bass		
	Leon Kirkland & Jim Morrison	6
Houseboat Holiday	Dean Wohlgemuth	10
How to Stock Raccoons	Marvin Tye	12
Outdoor World		15
Sportsmen Speak		16
Sportsman's Calendar		17

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In case you're wondering, that job description doesn't apply to membership on the State Game and Fish Commission, which is one of the quickest ways to get on the hotseat that has been invented by man.

The Commission is made up of 11 men appointed by the Governor for seven years of tightrope walking between the demands of the public and sportsmen and the recommendations of their Department's trained, experienced wildlife biologists and other personnel.

Since the Commissioners are not themselves professional career wildlife managers, they must rely on the advice of men who are, while at the same time representing the interests of sportsmen in their congressional district.

Should Commissioners bow to pressure from politicians, landowners, or some vocal interest group in setting a hunting season not recommended by the Department's biologists, many sportsmen don't hesitate to roundly damn them for cowardice, conniving, stupidity, or all three. On the other hand, should the Commissioners go along with the recommendations of the biologists on an issue which disagrees with their own opinions, these same sportsmen blast away at the Commission for being "dictatorial, unfair, undemocratic, highhanded," etc.

The latest demonstration of the pitfalls in trying to represent sportsmen, contend with politics, and still conserve wildlife is the fracas now bubbling in southeast Georgia over the State's first uniform opening of the deer season in five years.

Since this year's uniform opening date of November 4 is two weeks shorter than last year's southeast Georgia season, some deer hunters and some sportsmen's groups in the area are calling for the Commission to change the regulation and open the season two weeks or more earlier than the rest of the state. This would be unwise for a number of very good reasons.

Georgia's game biologists recommended shortening the season in the lower coastal plain area and making it uniform with the opening day in the rest of Georgia in an effort to improve deer hunting in the future there. Their recommendations are a step in the right direction toward accomplishing that goal, even though some sportsmen don't realize it yet.

Surveys by game biologists reveal that the Southeast Georgia section has more acres of deer habitat than any other section of Georgia, although it is not as high a quality as middle Georgia. And deer are more numerous there than

continued on page 16

ON THE COVER: Biologists of the State Game and Fish Commission begin their annual inventory of Georgia's lakes and streams. For the full story of population studies and their purpose, see Marvin Tye's "Count Your Fish . . . Before You Catch Them" on page four. The cover photo of a blockoff net being placed across the mouth of a cove on Lake Blackshear is by Jim Morrison.

ON THE BACK COVER: A cool view during a hot July day of the Juliette Milling Company dam on the Ocmulgee River at Juliette, between Macon and the Lake Jackson dam. Locally, the dam is a popular swimming, picnicking, and fishing spot. Photo by Ted Borg.

PHOTO CREDITS: Ted Borg 1, 2, 3, 10, 11; J. Hall 15; Jim Morrison 6t., 9b.; Marvin Tye 4, 5, 14.

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Photos by Ted Borg

SIX FATHOMS! The author and diving partner Roy Carpenter (left) demonstrate one of the forms of underwater communication used by divers. Though the water here is much too clear to need this type of signalling, in dark or murky water, divers can communicate with each other by tugging on a line stretched between them.

New Worlds to Conquer

by Ted Borg



■ I eased over the big moss-covered log and looked around. The boil was just ahead, and I could see the edge of the deep hole, down where the spring was. There was a heavy growth of vegetation starting to my right and continuing around to the far side of the boil. I turned and glanced over my shoulder to make sure I was clear of the log. When I looked back, I almost jumped out of my skin.

The bass was inches away, peering directly into my faceplate. He was big, at least eight pounds or better, and with his big mouth opening and closing so close to my face, he looked enormous. We stared myopically at each other for several moments, and he even moved a tiny bit closer to see better. It was obvious he was puzzled. I swear he even tried to furrow his brow, so intent was his concentration.

He moved again, turning slightly sideways, eyeballing me suspiciously, his fins moving gently in the water. Finally, I could stand it no longer. Very slowly I extended my arms, fingers outspread. When I reached to touch him, he moved away, not far, just enough. Again he stared at me, his attention riveted on the bubbles rising above my head. Then with a disdainful swish of his tail, he turned and swam nonechalantly away.

I felt a tap on my shoulder and turned to see Herb grinning at me. Heck, I couldn't tell whether he was grinning or not, with a mouth full of regulator. But his bubbles sounded sardonic. He had eased up behind me and had been watching.

"Herb" is Herb Wyatt, Regional Fisheries Supervisor for the State Game and Fish Commission and, among other things we seem to have in common, he and I share a passion for diving. Right then, we were at his "private sanctuary," Ossawiechee Springs, near Bowen Mill, Georgia.

Herb has a proprietary attitude toward the springs. Few divers go there, mainly, I suppose, because few people know about them anymore. There used to be a recreation area there, with a pavilion and amusement center and such. But it has long since faded into oblivion, the buildings have fallen, and few signs remain of its more prosperous past. Or perhaps that was the problem. Maybe it wasn't prosperous enough.

Anyway, not many people visit the place now except occasional picnickers and fishermen. Herb drops by periodically and dons his gear to drag the beer cans out of the spring, or just to dive awhile when he feels the need to find a little solitude and unwind. Even with a partner close by, diving's good for that problem.

The feeling of peacefulness and quiet... so rare in modern society's hectic pace, is just one of the many attractions that make diving the popular



IT COULD BE the Creature From the Black Lagoon, but every item of a diver's gear is important. Strapped to the author's back is the tank of air, compressed under 2,000 lbs. pressure. The hose extends to the regulator under his chin which will be held in his mouth, and controls the flow of air from the tank. The rubber "wet suit" keeps him warm in cold water, and around his waist, lead weights counteract the buoyancy of the suit and his body and allow him to submerge. Rubbing saliva over the face plate of the mask keeps it from clouding up under water.

sport that it is becoming. That, and the exquisite feeling that somehow you are entering worlds where no one else has been before you... worlds that are strange, alien, and where even the most commonplace things may suddenly become breathtakingly beautiful.

There's no question about diving opening doors to new worlds, for the underwater realm is one of the last frontiers for man's exploration. And he doesn't have to go far to find it. There's a world of discovery right at our fingertips.

It's amazing how different a body of water looks when viewed from beneath the surface. Take Ossawichee Springs as an example. From the bank, the water has a greenish cast, seemingly murky. There is a dark area about twenty feet from the edge. Once in the water, however, and everything is changed. The water is clear, the bottom sandy and clean, and the "dark area" turns out to be the entrance to a small cave through which the spring boils up from the ground. There are fish which swim unconcernedly by, or hover close, fascinated by this strange creature that has invaded their world, mysteriously blowing so many pretty bubbles. There is an eel that suddenly emerges, startled, then just as quickly slithers behind the rocks to peek slyly at the alien.

This is a world where strange plants... eel grass, clodea, mermaid weed, a host of vegetation forms grow in weird profusion, to reach out and clutch at hoses and gear and serve as sanctuary and hiding places for fish that come and go and live their lives

within its waving green morass, suddenly emerging and disappearing as silently as they came. It is a world where even a sunken log or a rotting stump, cursed from above because it lurks sightlessly to bend a prop or shear a pin or capture a favorite lure, becomes a sleeping giant, strange and misshapen, slumbering in his watery cave while small creatures dart and hide among the tresses of his mossy hair and a giant bass waits nearby for the unwary.

It is a world of a profusion of colors, strange hues altered by the diffusion of sunlight, constantly moving shadows, the sudden darkness of a passing cloud overhead... colors that are never seen outside the underwater world, for when they are removed, they change, fade and become lifeless.

Sound poetical? Yet, as I write this, I am confronted by the inadequacy of my description, for this is a world one has to enter, to see, and for a brief time, to be a part of, to really comprehend. And yet, even then, there is so much beyond comprehension, even beyond imagination.

It is perhaps easy to see that such a world can be intoxicating, that it contains fascinations that draw the adventurous, and for these reasons, diving is winning new members to its ranks every day. Somehow, it becomes addictive, and even the smallest, most insignificant body of water may become a challenge, for it may contain something that the diver has never seen before.

To illustrate this, let's again go back to Ossawichee Springs. Certainly as springs go, this is no real prize. And to divers who have descended into the fabulous areas of the Pacific, the South Atlantic, and swum through the tropic reefs of the Bahamas, the Divers' Paradise, this place might not even be worthy of consideration. But note.

Herb has dived into Ossawichee numerous times. He is familiar with its appearance, and with much of the aquatic life that lives there. Yet on this dive, Herb and I discovered not two springs, as he had previously thought, but so far, a total of seven within a space of a few hundred yards. Four of these springs were larger than the two he had first known about, and one of them, at least, contained some really big fish, as fresh water fish go... bass, jack and bowfin of six, eight, ten pounds and more.

But the large fish aren't always the most unusual. Sometimes big things come in small packages. Such is the "Ossawichee Darter."

We were swimming along, looking, examining everything within sight, when suddenly, Herb seemed to go crazy! For a moment, he looked like a frenzy of foam and flippers, and then he got so excited, he popped to the surface. I

followed to find him tearing off his mask and regulator.

"J, it's a rare fish!" he exclaimed.

When I got him slowed down enough to be intelligible, I found out that he had just seen what is indeed a very rare fish... the only species of its type in the world. And strangely enough, living here in Georgia in insignificant Ossawichee Springs.

Herb stayed on the surface to mark the spot, and I went under to have a look. There, lying cooperatively on a small bed of gravel was a little fish about five or six inches long, resting on its pectoral fins. I looked him over carefully, even went around to his other side to examine him from there, and finally surfaced, very much unimpressed.

"What's so special about him?" I wanted to know.

I became much more interested when Herb assured me we had just seen a critter that a lot of ichthyologists would "give their left arms to see." I decided to go back for another look, and I must admit that suddenly that little brown fish seemed to assume a totally different appearance. He was in the same spot, as though he could care less about our flopping about. I mean, he had dignity. Perhaps you understand.

We examined the area closer, and in a few minutes, had discovered not one Ossawichee Darter, but several, all within a space of two or three square feet. Yet Herb had never before seen them, and we might return many times without seeing them again.

This then is diving. A world of fascinations, of discovery, of new learning, a world where man is just beginning to intrude. And the fact must be marked that he is an *intruder*. For man in the water, is in a totally alien environment, and he must never forget that. Even though all life began with the sea, and all landbound life form emerged at some time from her watery womb, we are now so far separated that we can never return, just as the baby cannot return to the mother from whom he was delivered.

Man has always been drawn to the water... in ships, in suits, and in strange devices. This is not strange, in view of the fact that so much of the world is comprised of water, and what lies within and beneath it is so little understood. But it is really within very recent times that man has begun to explore this world in depth. And the things he has seen and found have made him want to see and learn much more.

Diving has always been a fascinating activity. We read about pearl divers who dive deeply in search of the valuable oysters, with nothing but their courage and mighty lungs to sustain them. We listen spellbound to tales of deep-sea divers who descend in armored suits and

massive helmets, free to move, to work, to explore, yet so dependent upon the fragile lifeline of air that connects them like an umbilicus to the world . . . and oxygen . . . above. There is also the "snorkel," a rather simple, insignificant device, merely a tube with a mouthpiece on one end to be held in the diver's mouth while the other end extends above the surface. This enables man to swim around, to look at the world below, and even to make shallow, exploratory trips within the limitations of his lung capacity

But it was the development of SCUBA equipment, or Self Contained Underwater Breathing Apparatus, that really opened the way to a better understanding of the underwater world, for with such equipment, the diver has greater freedom of movement and travel and is less dependent upon connection with the surface. Developed largely by Jacques Cousteau, renowned undersea explorer and researcher, SCUBA has made diving a sport rather than a hazard, and brought the underwater world within the reach of the amateur.

Diving is easy, and almost anyone can do it. Yet it would be a gross misstatement for me to say that it is so easy it is simple, for there are difficulties and dangers involved, and the expert, as well as the beginner should continually be wary of them. There are rules to follow, and a lot of capable people are lying in watery graves because they forgot, or chose to ignore them. Ignorance of the rules is an even more terrible, and equally fatal error.

To discuss diving in any depth is impossible, for there are large volumes devoted to the subject, and numerous courses taught on its methods. And this is exactly where the beginner should start . . . by taking a certified course in diving instruction. Experience is a poor substitute for this instruction, for a person might dive for years before suddenly being confronted by a situation which proper instruction would equip him to recognize, and handle.

Equipment is the next question, and again I would defer this answer to the trained diving expert, the instructor or a diving shop. It can be easy for the novice to select the wrong kind of equipment for himself . . . too much of one type, too little of another, and just as with automobiles or refrigerators, there are expensive brands and the "cheapies." How much you want to spend may depend on what kind of diving you want to do, and how much you think your life is worth.

Basic SCUBA equipment will consist of a regulator, through which the diver breathes compressed air at a controlled flow, air tank, which contains his supply of air, face mask, weight belt, flippers or "frog Feet" to assist him in swimming. There are numerous other articles which

a diver can use, and many of them are greatly desirable as well as being invaluable safety aids. Among these are the depth gauge, waterproof watch for determining length of a dive, diving suit, either a "wet" suit for dives to approximately 150 feet, or a "dry" suit for deeper exploration. These help keep the diver warm. A compass is highly desirable, for underwater, everything looks alike and there are few "landmarks" to tell where you're going. And the diver needs a good knife . . . not so much for protection or swashbuckling, but possibly to cut himself loose from a snag or entangling weeds before his air supply runs out.

As for the dangers of diving . . . many chapters in many books have been devoted exclusively to that subject.



Using a special underwater camera can be tricky, the author discovered, for distances are difficult to judge accurately. But it's a wonderful way to record those unforgettable scenes and experiences. Strapped to his wrist is a depth gauge and compass. It's nice to know where you're going! Fish are frequently fascinated by the streams of bubbles coming from the regulator, and follow the diver closely, trying to figure them out.

Among those most commonly imagined are from fish such as sharks, moray eels, barracuda and other assorted livestock, and in truth, many of these are not to be trifled with. One problem, known to many people as the "bends," results from too rapid expansion of air in the lungs, forcing bubbles into the blood stream and possibly into the brain. "Air embolism" is a rather unpleasant experience, and an unprofitable way to die. "Squeeze" is a more common problem, resulting from the pressure of the water as the diver descends. The diver should be able to "clear" his air passages . . . the sinus cavities and eustachian tubes leading from the ear, by forcing air under pressure up into them. Otherwise, he finds himself in the reverse of the sensation you may feel when traveling

through the mountains or going up in a fast elevator. The pressure is from the outside, it is much more rapid and pronounced, and may result in imploded ear drums and unconsciousness. As I can personally attest, it very definitely produces some excruciating moments of sheer agony. There is "nitrogen narcosis," produced by the effects of nitrogen under pressure in the blood stream. Often called "Martini's Law," it is based upon the proposition that each fifty feet in depth a diver descends is roughly equivalent to gulping down a dry martini on an empty stomach. Thus a diver at 100 feet, though he be an absolute teetotaler, has the effects of "tee martoonis" rollicking about his system. How soon he succumbs to this, and how many "martinis" he can consume in depth is just about equivalent to the individual's capacity for consumption of actual liquor before passing out. That this may be dangerous is illustrated by the story of a diver who was sent down to perform a task at 250 feet or so. He seemed to be getting nothing done, in spite of the most abusive persuasion sent down from above, and finally he advised surface tenders through his telephone in a drunken voice that he was trying to work but "that _____ air hose keeps getting in the way! I'll get it done just as soon as I can cut this _____ thing out of my way!" He was quickly hauled up.

Of all the dangers that are real and imagined to the diver, in my opinion the greatest is panic. Frequently this results from inexperience and lack of knowledge, but even the most experienced diver can lose his head in a frightening situation, and many have died as a result. A diver should be emotionally stable, able to think clearly in moments of stress, for sooner or later, such moments will arise.

I have talked about the wonders, the thrills and the pleasures of diving, and they are many. I have mentioned some of the dangers of diving and they are present, there's no fooling with that fact. If you are interested, if you're in good health and you like adventure, then I heartily recommend it as one of the finest sports yet devised for man's amusement and edification, for beneath the surface of the water lie many new worlds yet to be explored and conquered.

Just remember one thing. From inside a nice dry boat or at the comfort of your dining table, a fish is something for you to eat. As a diver, whether you eat him or become an *entree* on the piscatorial menu yourself, depends upon knowing that in the underwater world, *you* are the alien, the invader, and very much out of your element. Remember that, and the skies . . . or perhaps better stated . . . the depths, and the wonders, are limitless. 🐟



Photos by the author

Count Your Fish Before They Are Caught!

By Marvin Tye

■ Fish population studies performed by the Georgia Game and Fish Commission's fish biologists are among their most beneficial and least understood management tools.

A fish population study is conducted by placing a large block-off net completely around the mouth of a two-acre cove or inlet on a large impoundment. This small section of a much larger body of water is then treated with a chemical called rotenone which kills all the fish in the confined area. The fish are removed from the water with smaller dip nets and weighed and measured. They are also checked for internal parasites, or

other abnormalities. Information derived from the population study is used to formulate new management techniques.

According to Leon Kirkland, Chief of Fisheries for the Game and Fish Commission, the study has two primary purposes, (1) determining the present population and (2) determining what changes have taken place. If any problems are developing, proper management steps can be taken to correct them. Kirkland says the population study is only one of many tools used by biologists to determine management practices. Also taken into consideration

are creel census results, age and growth studies, limnological studies, and netting studies. A limnological study is an examination of the physical and chemical properties of the water.

Some sportsmen seem to believe that population studies ruin their fishing. Kirkland says that rotenone kills fish by causing blood capillaries in the gill membranes to contract and thus bring on death by asphyxiation. The chemical is not harmful to humans, and fish taken by this method can be eaten with no fear of harmful results. Portions of the lake not enclosed by the net do not receive enough rotenone to be affected.

Fish population studies reveal which species of fish are present in any lake. This mixed bag of catfish, crappie, bass and other fish was taken from Lake Blackshear.

Biologist Dan Holder, left, describes findings to biological aide Paul Loska who records results. State Representative Janet Merritt of Americus attended this population study to observe the operation.

The rotenone in the treated area is diluted by the end of the population study and the treated area soon returns to normal.

All the fish a certain lake will support will be found in that lake at all times. Fish reproduce rapidly and will soon fill any void caused by a population study. Fisheries biologists compare the population studies to a farmer taking a soil sample. This small amount of soil removed does not ruin the farm. Neither does the small amount of fish removed during a population study ruin the fishing. In fact, other fish soon move into the affected area and natural reproduction fills any gaps.

A fish population study could also be compared to a merchant taking inventory. The merchant can simply remove his stock from the shelves and make an accurate count of each item on hand. For the fisheries biologist, it is not so easy. The only way to get a complete count of each fish of each species to be found in any large impoundment is to take samples by use of the population study. It is assumed that fish in one portion of the lake would be found in similar proportions all over the lake. Experience of fisheries biologists over the years seems to bear out this assumption.

Fish begin surfacing shortly after application of rotenone. This usually begins within 15 minutes. These fish are collected in dip nets and taken to a sorting table which has been set up a short distance from the water. Individual fish of each species are measured and a record is kept of the number of fish of each size group—usually divided into increments of one inch. Each size group is weighed to determine the average size of each individual.

Although they are killed at the time of the application of rotenone, some fish sink to the bottom of the lake and do not surface until the next day. These are retrieved at that time and shortly thereafter the nets are removed.

Georgia lakes on which population studies are being held this year are Seminole, Blackshear, Sinclair, High Falls, and Allatoona. Each major lake in Georgia is checked once in the spring and again in the fall, normally on two to three year intervals. Similar studies are periodically made on rivers and streams.



Fish killed by rotenone are retrieved with long-handled dip nets.



Biologist C. B. O'Neal measures a large catfish taken from Blackshear. Fish taken in population studies are weighed, measured, and checked for diseases or other abnormalities.



Dan Holder checks weight of catfish taken in Blackshear study. Smaller fish are weighed in groups, and an average weight per individual is determined.

Unmasked: the spotted bass

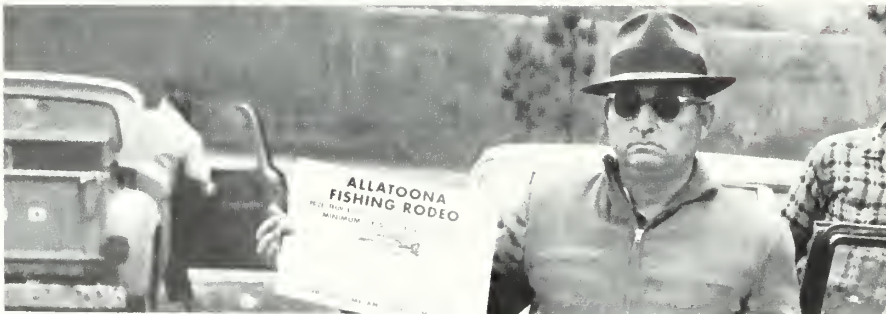
A Suspicious Looking Cousin of the Largemouth Shows Biologists and Fishermen He's Quite a Fish.

By Leon Kirkland and Jim Morrison

(Leon Kirkland, presently the Chief of Fisheries of the State Game and Fish Commission, was the Project Supervisor of reservoir research activities at the time the Spotted Bass Project was undertaken.)



Closeup view of a typical Allatoona spotted bass with a tag in his back. The tags were part of a Game and Fish Commission research project designed to unlock the mysteries of the spotted bass.



Members of the Cherokee County Game and Fish Club helped sponsor the Commission's spotted bass tagging project by raising tag prize money and publicizing the fishing contest. Harvey Mulkey of Canton served as the Club's project chairman, helping to distribute posters around Lake Allatoona.

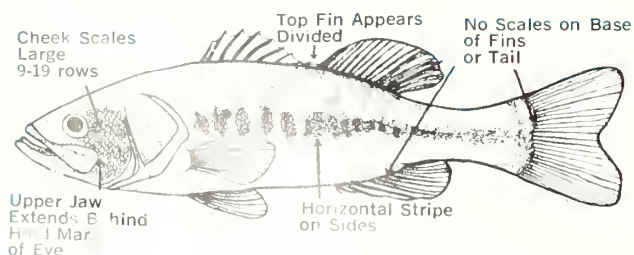
■ Fishing rodeos and scientific investigations ordinarily don't go hand in hand, but a fishing contest on Lake Allatoona north of Atlanta has gone a long way in that direction, at least as far as the average fisherman is concerned.

Thanks to the unusual contest, the results of the Game and Fish Commission survey of spotted bass fishing on Allatoona have pointed out the best techniques for landing the scrappy spotted bass, often confused with his more common cousins, the largemouth bass and the smallmouth bass.

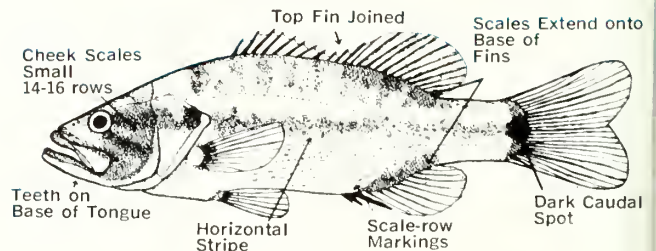
When we decided to make an intensive survey of spotted bass fishing o

GEORGIA BLACK BASS

1. LARGEMOUTH BASS



2. SPOTTED BASS



Allatoona, we asked a local sportsman's group, the Cherokee County Sportsman's Club, to sponsor a contest as a means of determining what the habits of the spotted bass actually are.

As a means of getting complete reports of tagged fish catches during the survey, the Club offered prizes ranging from \$1 to \$500 for tags turned in by cooperating sportsmen. Special prizes were given for specific numbers on the tags for more incentive to the lucky angler who might otherwise keep the news of his tagged fish to himself.

Allatoona fishermen responded enthusiastically to the challenge. As far as can be determined, practically all the tagged fish caught were reported during the contest.

In fighting and eating categories, the spotted bass doesn't take a back seat to his more well-known cousins, the largemouth bass and the smallmouth bass. When hooked, the spotted bass doesn't ump as frequently as the largemouth, but he pulls with more strength and endurance for his relative size. Like the smallmouth, the spot fights well with tremendous power under the surface.

The spotted bass pulls his weight on the table, too. His meat is very firm and light in color, with an excellent flavor.

Although the spotted bass doesn't reach as large a size as his cousins, he has nothing to apologize for as a sport fish, although 5 or 6 pounds are considered trophy-sized catches.

The present Georgia record is a six pounder taken by Elton Elrod of Cartersville in Allatoona on February 1, 1967, but fish weighing seven and eight pounds have been unofficially reported. *Field & Stream* Magazine created a new category in their fishing contest for the spotted bass last year, and an eight pounder from Smith Lake in Alabama has been recorded as the world's record.

The spotted bass has generated a good bit of interest because of its success in Smith Lake, a new reservoir that is very popular. But Georgians have been catching spotted bass for years, frequently without knowing what kind of fish they were catching.



In Georgia the spotted bass occurs in real abundance only in Northwest Georgia's Allatoona Reservoir. They are taken in the Coosa, Chattahoochee, and Tennessee River drainage areas and occasionally from Lake Burton and its feeder streams. However, for practical purposes, Allatoona is the only reservoir in Georgia, and one of the few in the nation, that is dominantly populated with spotted bass. Some largemouth bass are also taken, but over 90 per cent of the bass caught there are spotted.

Originally the largemouth bass was dominant in Allatoona, but over the years the spotted bass has managed to take the lake from his larger cousins since impoundment in 1949.

Most biologists are surprised that the spotted bass has been able to sustain a high population in an "old" reservoir like Allatoona. That fact may be of unsuspected significance to future Georgia fishermen.

Although he is rarely recognized, the spotted bass is a native Georgian. He is often confused with his close relatives, the largemouth and smallmouth bass. He resembles both in physical appearance and habits. Some anglers mistake him for a cross between the two, although this never occurs.

In general appearance the spotted bass more closely resembles the largemouth. A familiar nickname for the largemouth, "Old Linesides," comes from the dark line that runs down the middle of each side. The spotted bass

has this horizontal line down his side, while the Smallmouth has a series of dark vertical bars.

Another way to tell the largemouth from the smallmouth bass is by the length of the upper jawbone. In the adult largemouth, this bone extends well back behind the rear of the eye. In the smallmouth and spotted bass, the jawbone stops directly under the eye.

In order to learn more about this relatively unknown species, plans were made to tag a large number of spotted bass to see what happened to them. At the same time, largemouths would be tagged so results from both species could be compared.

When contacted to aid in the project with a tag contest, the Cherokee County Sportsmen's Club eagerly responded. In a short time, the club had raised more than \$2,500 by donations from club members, businesses, and concessions to pay rewards for the tags turned in.

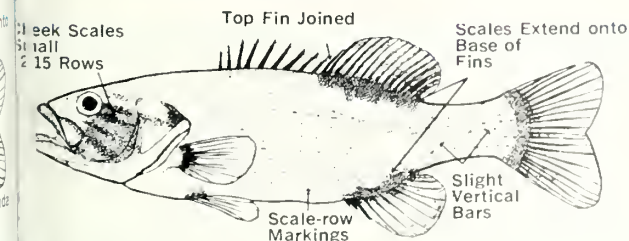
One dollar was paid for each tag turned in and a weekly prize of \$10 was given for the highest number turned in during the week. Large prizes of \$25 to \$100 were offered for specific tag numbers, with a \$500 grand prize.

The only remaining problem was how do you catch 2,000 bass for tagging? Electrical equipment is usually used in streams and small ponds, but none had been designed for efficient use in capturing bass from a large reservoir like Allatoona. As a result, we built our own electrical outfit for catching bass and other game fish in large impoundments. After much experimentation and testing we finally came up with a rig that would do the job.

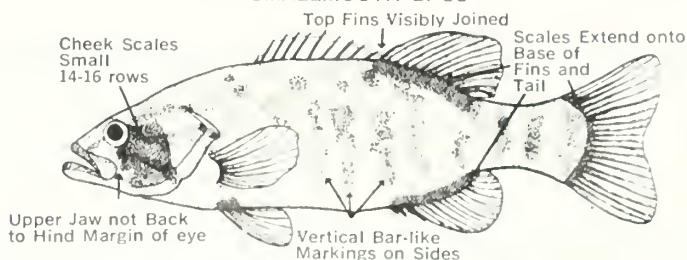
The "shocker," as we call it, is powered by a gasoline generator with boosters to step up the current flow. The shocker can be set so that fish are stunned for only a few minutes, after which they come to and are as good as new. With this machine we were able to capture up to 40 bass an hour. In a few weeks, 2,000 spotted and largemouth bass were caught and tagged.

The contest idea was a good one, since almost all the tags recovered by fishermen were turned in. A careful

3. REDEYE BASS



4. SMALLMOUTH BASS



study of the tagging results shows good spotted bass fishing starts about the last week in March. The fishing starts off with a "bang," since the first week of good fishing yielded as many tags as any later period.

At the beginning of the season most of the fish are caught up the small creeks, almost to the headwaters. Most of this type of fishing is done with floats using minnows or live worms for bait, fished three or four feet deep.

Good fishing continues through March, April, and well into May. Following the excellent fishing in the upper reaches of the creeks during this time, the fish move back down to the lake and congregate on the shallow points and underwater islands. Here they are taken primarily on live salamanders, commonly called spring lizards. The bait is fished with a sinker or split shot twelve to eighteen inches ahead of the bait. The lizard is retrieved very slowly with frequent stops and pauses. On feeling a "tap," the line is quickly slackened and the fish allowed to run with the bait.

There are many opinions as to when to set the hook on a running fish. Some anglers prefer immediately after the run starts, while others wait until after the fish has stopped and starts to run again.

My experience indicated that the striking time must be varied according to the time of year. In the early spring, the lizard is often dropped by the spotted bass after only a short run. Later in the year the bait will be kept and swallowed readily.

If that advice doesn't work when going lizard fishing, then save some of your choice expressions for when you try setting the hook on a running fish and the line goes slack!

Lizards, minnows, and live worms accounted for about 75 per cent of the tagged spotted bass taken in Allatoona. However, this heavy preference for live bait doesn't necessarily mean spots do not take artificial lures readily. Jigs of various kinds are effective when properly fished, as are deep running baits such as Bombers and Waterdogs. The plugs are trolled over the points and islands just over or occasionally bumping the bottom. Casting the shoreline with small Bombers is also very effective during April and May. During the hot summer and early fall months the fish stay down deep and are rarely caught. The deep running plugs are most often used during these periods.

At this time of year the Etowah River offers the greatest potential for spots. Drift fishing on the river from about 15 miles above Canton to the head of the lake is very good. Fish can be caught in the live "fall" although spring and fall are the best. Drifting, casting, or fly fishing around the old leaning trees and under the overhanging banks is rewarding activity.

When the leaves start turning in the fall, the spotted bass once more become active in the lake. The fish start feeding to store fat for the cold winter months. Minnows and worms are most effective during this period fished off the rock points.

Another effective tactic on spots is "jump" fishing while the bass are feeding on shad at the surface. This productive strategy is often overlooked by most fishermen.

Standard procedure in jump fishing is to cruise good locations in the late afternoon while the water is calm, looking for surface feeding activity. When the fish are sighted, the boat is quickly run in close to the feeding fish and the lure cast into the school.

Spoons are generally most effective in jump fishing because of their distance and accuracy. The spoon should be worked by allowing it to flutter down on a semi-slack line for a few feet, retrieved a few turns, and permitted to sink again. Don't retrieve the spoon immediately to the boat in a straight line.

One of the most exciting moments in jump fishing is finding out what you have caught. Since Allatoona also abounds with white bass feeding in the same manner, they are often caught along with the spotted bass. At times the two species are found feeding together on a school of shad.

According to the statistics gathered in the fish tagging contest Allatoona spotted bass fishermen are very efficient in capturing their quarry.

The greatest catch was of three-year-old fish. In the nine months from March 1 to December 1, fishermen caught 41 per cent of the three year-old spotted bass tagged. 25 per cent of the two-year-old fish, 30 per cent of the four-year-olds, and from 30 to 40 per cent of the fish five years and over were caught. This means that the fish are harvested at a good rate and yet there are a sufficient number left to maintain continued good fishing.

Another interesting fact uncovered by the study is that a good percentage of the fish, 56 per cent, were caught in the middle of the day from 9 a.m. to 3 p.m., contrary to most fishermen's ideas of bass fishing, since early morning and late evening are generally thought to be the best times by experienced bass fishermen. However, late afternoon did account for most of the remaining fish with only about six per cent being caught in the early morning.

Spinning gear was most often used for catching tagged bass, with approximately 78 per cent of the results. Pole and line was second with 12 per cent, casting tackle accounted for six per cent, and fly rod fishermen took the remaining four per cent of the tagged fish.

Most of the fish were taken at a depth of 3 to 4 feet. 88 per cent of the tagged fish were taken less than 10 feet deep. No catches were reported over twenty-five feet deep.

In comparing the tag returns of spotted bass with those of largemouths tagged at the same time in Allatoona, the two fish were found to be very similar in habits. A higher percentage of the tagged spotted bass were caught than largemouths, indicating that they bite as well or better than their more widespread cousin. This is very important in a game species and is one factor that had been in question concerning the spotted bass.

The reaction of the spotted bass to topwater plugs was very evident in this study. Of 258 tagged spotted bass caught, not one was reported taken on a topwater plug. About 5 per cent of the largemouths were taken on topwater plugs.

Both species showed the same preference for live minnows, lizards, and worms over artificial bait.


Other data on the two species were so similar comparison showed little variation, although studies of the growth of these two species in Allatoona show the largemouths grow somewhat faster than the spotted bass.

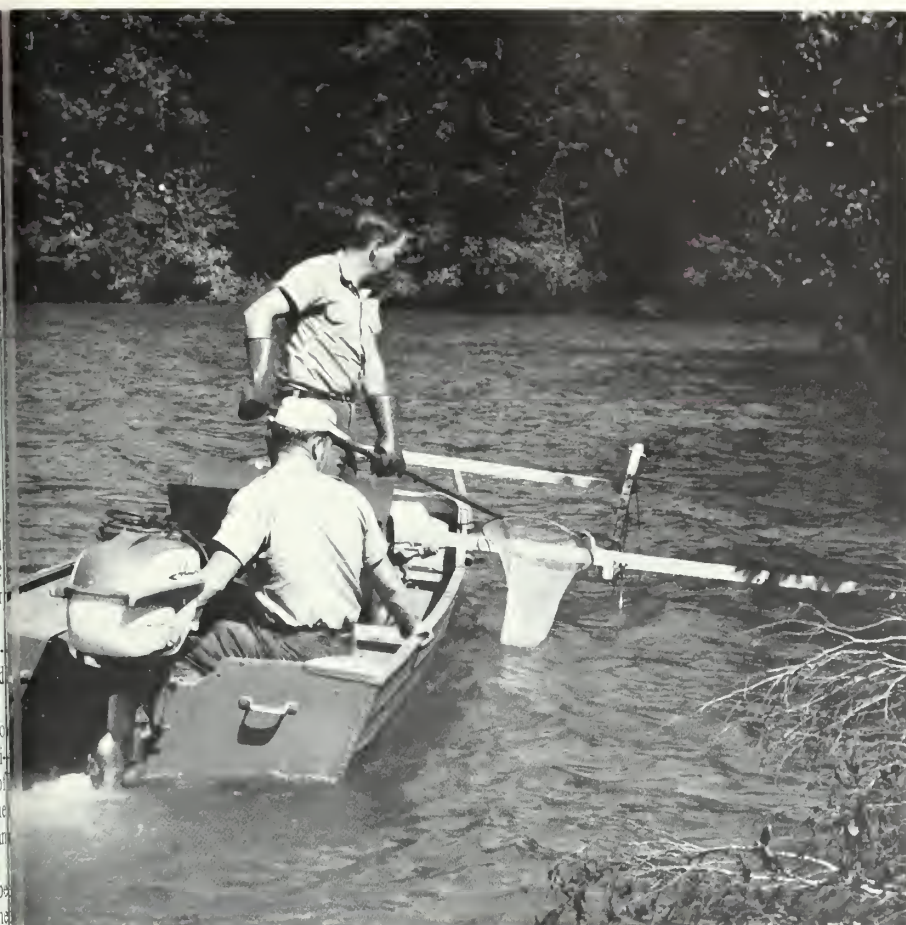
Reproduction of spots appears to be very good in Allatoona, as shown by the ability of the spotted bass to maintain a high population and at the same time give up a high percentage of the population under heavy fishing pressure each year.

One of the most important facts brought out by the study is that the spotted bass has been able to maintain itself in abundance in an old impoundment where the largemouth has faltered. The spotted bass has done this in spite of the very heavy fishing pressure exerted on the lake from nearby large population centers.

The only two ways in which the spotted bass appears to be inferior to the largemouth is in its slightly slower rate of growth and the fact that it does not reach as large a size.

Other studies are in progress at the moment to find out more about the fish, but from the present information it looks like the spotted bass may be a species that could help provide better bass fishing in some of the other impoundments where it does not now occur.

So if in the future on your favorite lake or stream you catch a suspicious looking bass that, after a tremendous battle comes reluctantly to the net, examine him closely; you may have been introduced to a fellow Georgian the spotted bass. 



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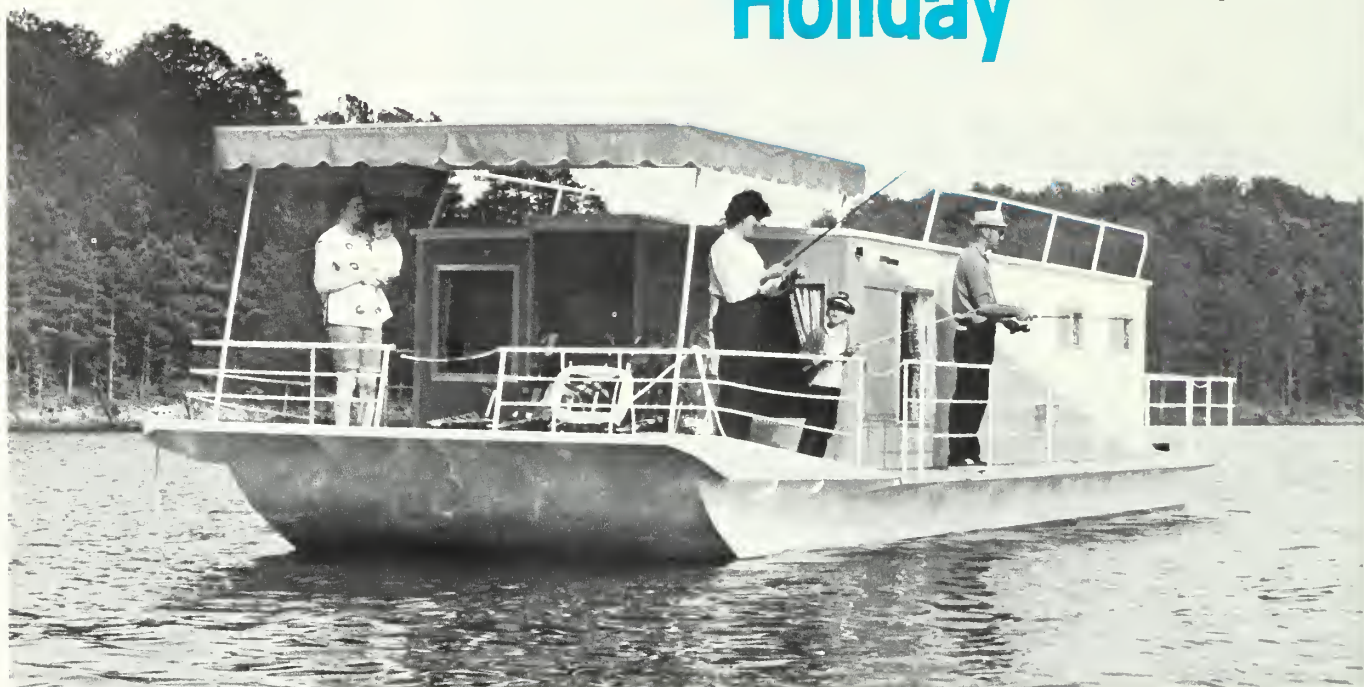
Spotted bass and largemouth bass were captured for the Allatonna study with a specially-designed electric shocking machine. Author Kirkland is standing in the front of the boat, ready to dip up fish stunned by the long electrodes hanging down into the water from the poles on the bow.

The Allatonna study showed that the spotted bass is a first-class game fish that is no harder to catch than the largemouth, except with topwater plugs. Although spots don't grow as fast or get as large as largemouths, they may be the answer in providing continued good bass fishing in old lakes with heavy fishing pressure where largemouth fishing is poor.

If you're tired of the land, why not live on the water!

Houseboat Holiday

By Dean Wohlgemuth



A houseboat is a little big for maneuvering around a cove or over a crappie bed, but passengers who like to fish can get in a few casts when the urge strikes.

■ You'd have thought we were loading the Queen Mary, embarking on a voyage of at least three months.

There was fishing tackle, camera gear, lawn chairs (which, for the duration, became "deck chairs"), food, and everything else we thought we might possibly be able to squeeze in some use for on a houseboat.

Game and Fish's photographer, Ted Borg, and I were moving our families into the shining new 44-foot Drifter houseboat at Galt's Ferry Landing on Lake Allatoona. It was Friday, and we were loading up for what we hoped would be a "typical" weekend cruise aboard the floating house.

I started the big inboard-outdrive motor and very carefully backed the boat out of its moorings in the slip, and we were off for a weekend of floating, fun and cruising.

The craft, which seemed huge in my hands—I'm not used to anything bigger than a runabout—slid easily across the lake surface and as my hand pushed the throttle forward after clearing the landing area, the motor responded strongly. Soon, we were cruising down the main channel of the Etowah River arm of the lake.

Arrangements for the cruise had been made through LeRoy Dobson of Marine Distributors Company, Inc., of Buford, Georgia, a company that rents and sells Drifter houseboats.

LeRoy is also president of the Metropolitan Atlanta Marine Trade Association. He had made the demonstrator houseboat available to us to do a feature for *Game & Fish Magazine*.

Before we struck out on our own, we had good instruction on the operation of the houseboat. LeRoy's brother, Tom Dobson, operator of Galt's Ferry Landing, had taken us out for a short shakedown cruise. And he had carefully tutored me on the art of maneuvering the huge boat in and out of the cramped quarters of the slip.

Gradually it came to me that handling the houseboat was almost exactly like handling a runabout except, of course, on a much larger scale. You took things slower and easier. But all the same principles apply.

The first day of the trip was spent cruising. We stopped for lunch, then just drifted awhile before heading back toward our landing.

We saw a good deal more of the lake than we normally would have on a fishing trip. It's unlikely we would have ventured on such a long cruise in a fishing boat.

On the second day, we decided on finding a more leisurely use of the houseboat than cruising. Finding a quiet cove, we dropped anchor. After lunch, and an hour or so of just loafing on deck and a little casting from the stern,

Ted and I decided to do a little fishing.

We untied the small aluminum fishing boat which we'd lashed alongside, and eased in closer to shore for some casting. Meanwhile, the families worked on getting a suntan on the top deck.

A huge cloud began to form on the horizon, so Ted and I quickly headed back to the houseboat, made the fishing boat fast, and cranked up to head for home port.

As we swung out onto open water, we could see the rainstorm approaching. Full steam ahead!

There was no outrunning the rain. It caught us within a mile. But no problem. All hands ducked into the cabin and all kept warm and dry as we enjoyed the ride back home.

Hoping I could remember the formula for docking the boat, I eased into the slip cautiously. In went the boat easily as if an old pro were at the helm.

Houseboating, we found, is a pleasant recreation for families. There's plenty of room aboard for whatever you feel like doing. Other boats on the lake passing by wave a friendly greeting. A cool breeze comes off the lake. The world seems at peace.

But if you find you don't like your neighbors, it's easy to move your floating lake cottage—just pull up the anchor and turn the starter. There may be no adventure, just around the bend! 🐟



Appetites are good on the open water, so the family waits impatiently for service! Houseboats have all the comforts of home for eating and sleeping.



Sightseeing is good from topside, too. Warren Wohlgemuth points out the sights to sister Cheryl Kay.



Before venturing out on his own at the helm, author Wohlgemuth gets instruction in handling a big 44-footer from Tom Dobson, operator of Galts Ferry Landing, home port for the vessel.

A happy coon hunter, and his dog, and a successful hunt. The raccoon population of Georgia should provide plenty of sport for future generations—IF indiscriminate illegal stocking is stopped at once!

How to Stock Raccoons



...and regret it

By Marvin Tye

■ There are many hunters throughout Georgia who thrill to the exciting sounds of their trained dogs in pursuit of the wily raccoon. The almost musical baying of the hounds on an otherwise silent fall night must be heard to be really appreciated.

At the moment the raccoon population of most of the state is healthy and should provide plenty of sport for the future. According to many wildlife authorities, the biggest threat to the raccoon population is the group of sportsmen who hunt them. This danger does not lie in overhunting, but in the introduction of raccoons from other areas of the state or from other states into North Georgia.

According to Dr. Frank A. Hayes, director of the Southeastern Cooperative Wildlife Disease Study at the School of Veterinary Medicine at the University of Georgia, this importation of raccoons could introduce several diseases not now found in the North Georgia raccoon population. The diseases most feared at the moment are rabies and encephalitis.

Three instances of unusual behavior in raccoons were recorded recently at the University. A raccoon attacked William Harvey of Forsyth. Harvey killed the animal with a stick. The raccoon showed symptoms of encephalitis. Another raccoon fell from a tree near Buckhead in Morgan County. Charles Bell noted that the animal was acting strange, so he turned it over to the Game and Fish Commission. The raccoon was found to be rabid. It would grasp its rear end with its front paws and draw them toward its mouth. The animal lived

for two days at the Southeastern Cooperative Wildlife Disease Study headquarters before being put out of his misery on May 17 of this year. This raccoon also was a victim of encephalitis.

The third report came from South Carolina, where a raccoon was found wandering on the grounds of a motel in Beaufort County. The owner of the motel contacted conservation officers who captured him. The raccoon would lie on its back, grit its teeth, shake all over, recover, and then repeat the entire process. Examination at the University of Georgia showed that he also had encephalitis.

Dr. Hayes said that several recent reports of such cases could indicate an outbreak of encephalitis in certain areas. An outbreak of this kind might be confined to the local area. However, indiscriminate transporting of raccoons from one area to another could spread an unwanted disease which could greatly reduce the entire raccoon population. Dr. Hayes also stated that the strain of encephalitis found in the raccoons was not the dreaded sleeping sickness, but an entirely different strain.

Dr. Harold Hubbard of the Department of Microbiology at the University's School of Veterinary Medicine is more concerned about rabies. He says that this dread disease is prevalent among raccoons in parts of Southern Georgia and Florida and seems to be spreading northward. Once started, an outbreak of rabies is hard to stop. Since the first reports of rabies in certain

south Georgia counties several years ago, other reports have continued to come in from the same general location up until the present. It is obvious that rabies is still present in these locations.

A rabid raccoon, or a raccoon with any other brain inflammation, does not behave the same as a normal coon. The rabid animal will walk right into towns up to farm houses, and generally seem to seek human company. The normal wild raccoon shuns humans and is more likely to be found further off the beaten track. Rabies affects the brain and causes any animal, including humans, to behave in a very unusual manner. Rabid raccoons are much more likely to come into contact with people than those which are not rabid.

A rabid raccoon which wanders into someone's yard is likely to be mistaken for a pet. It will not seem to be wild. Remember, the rabid animal does not act like a normal wild animal. The average person will walk over to the raccoon and try to pet it or pick it up.

Dr. Hubbard tells the story of a southern Georgia man whose dog attacked a rabid raccoon on the man's property. Immediately after killing the raccoon, the dog turned upon his master and bit him. The man had to undergo prophylactic treatment for rabies, a very painful series of injections. The dog may have had saliva from the raccoon mixed with his own. This might have transmitted the disease to the owner.

A raccoon trapped in a rabies-infected area might have been exposed earlier that same day. At that time he would appear perfectly normal. Frequently



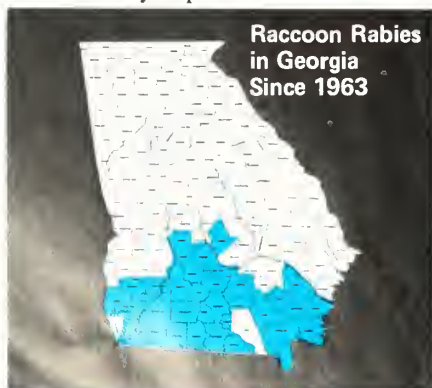
symptoms of rabies do not appear until as much as three weeks after the animal is bitten. At that time, the rabid animal could be treed in his new environment. The south Georgia incident could be repeated with tragic results.

The edges of many Georgia towns now border woodlands that harbor a raccoon population. A serious outbreak of rabies could pose a threat to small children in these towns.

Tennessee has been plagued with a rabid fox problem for several years. It is not known if raccoons pass this disease on to foxes, but there are those who believe it could happen. In addition to raccoons and foxes, there are an undetermined number of feral dogs estimated at 300,000 or more ranging across the state. If rabies should ever spread to these animals also, no other form of wildlife or domestic livestock would be entirely safe.

Another man who is concerned over the problem of rabies in raccoons is State Public Health Veterinarian Dr. D. W. Dreesen. He says that of 1,275 raccoons examined from 1963 to the present time there have been 375 positive cases of raccoon rabies reported. Seventeen cases have been reported this year. Dr. Dreesen views this in much the same way he would view an iceberg. Only a small percentage of the mass of the iceberg is present above the surface. The great bulk of the formation is not seen. It would stand to reason that only a small proportion of the rabid raccoons are ever reported.

The present outbreak of rabies started about 1952 or 1953 in Southern Florida and was first reported in south Georgia in 1961. Since that time, it has been moving steadily northward. The map accompanying this article shows the Georgia counties in which rabies in raccoons has been reported since 1963. The areas that are not shaded may contain rabid raccoons, there just have not been any reports from these areas.



Dr. Dreesen believes that after it has become well known that rabid raccoons are found in a certain location, natives of that location simply kill any suspicious looking raccoon and do not bother to report it.

Last year approximately 400 rabid foxes were killed in Tennessee. About

40 rabid foxes were reported there during February of this year. Dr. Dreesen and others are concerned that the range of rabid foxes in Tennessee and the range of the rabid raccoons in Georgia may overlap before the two outbreaks are ended. There is now a buffer zone between these two, but indiscriminate restocking of raccoons from the rabies-infested areas could bring the two ranges together. Dr. Dreesen fears an outbreak of rabies like that of 1946 when 392 dogs, 268 foxes and 148 other animals, a total of 808, were reported to have rabies. All of these were in Georgia. A large percentage were in the Atlanta area where there are a large number of stray dogs.

What are the dangers to humans of such an outbreak? Ninety persons in Georgia were treated for bites by rabid or suspected rabid animals in 1967. This number could rise sharply with an outbreak like that of 1946.

In addition to rabies and encephalitis, raccoons have been known to carry several other diseases including anthrax. It would seem to be much wiser to preserve a healthy population of raccoons in a particular area than to import animals that might also bring in a disease or a number of diseases that could possibly wipe out the entire population and have serious side effects on the humans and other animal life.

Wildlife biologists say that introducing raccoons into an area with an established population is an unsound undertaking anyway. Large populations of raccoons exist in South Georgia naturally, because there is plenty of food and water in these areas.

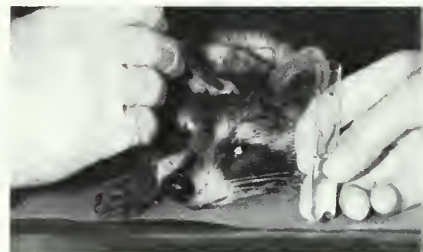
Raccoons feed largely on aquatic life. Where there is not enough water to sustain these creatures, there are just not going to be many raccoons. Biologists say that no matter how many raccoons are imported into an area, only a certain number can be supported by the natural food in that area. The surplus number will soon die, or disease due to starvation will set in.

The present season for hunting raccoons in North Georgia runs from October 15 to February 28. Some biologists believe that this season is too long. They say that in early October young raccoons have not left the parents to fend for themselves. Many times a female raccoon and her young will be treed and several will be killed at once. If the season were started in December, more mature coons would be taken. The family groups would have broken up by that time.

Tennessee and West Virginia have laws making it illegal to transport raccoons from one area to another. Georgia has the same laws, but in many cases they have been ignored. The conservationist can only hope that this situation will be corrected before it is too late.



Project Leader Ted Kistner and Research Assistant Jack Connell of the Southeastern Cooperative Wildlife Disease Study at the University of Georgia's School of Veterinary Medicine observe a captured raccoon to detect signs of abnormal behavior.



Parasites are removed from the body of a raccoon. Parasites from one geographical area may be transferred to another by hunters who move captured raccoons into new areas. For instance, ticks on raccoons may transmit Rocky Mountain spotted fever.



Ted Kistner examines the brain of a raccoon for signs of diseases such as rabies or encephalitis. Raccoons may carry several other diseases including anthrax. Native North Georgia raccoons are generally healthy, but diseased raccoons being stocked there by misinformed hunters may change this picture.



Jack Connell looks at raccoon lung tissues under a microscope, seeking damage caused by disease. Masks must be worn by laboratory personnel to prevent their contracting the animal's diseases.

Plantation Manor Children Get Fishing Lesson, Tackle

Frank Carter, a manufacturer's representative for several large sporting goods companies, and himself a renowned and widely travelled fisherman and sportsman, recently came to Plantation Manor Home for Children at Conyers, to present the youngsters a donation of fishing rods, reels and tackle.

Carter gathered the children together on the bank of their small lake for a couple of hours of instructions on casting with the new equipment, how to rig their lines, and methods of fishing.

After the demonstration, the children were all eager to try their luck, and the banks of the lake have been populated with determined young anglers ever since. As evidence of their success, all 32 children recently enjoyed a fish fry, with the fish provided by the youngsters themselves! The largest catch to date is a two and one-half pound bass landed by one of the smallest boys. Maybe it all comes from having a good teacher!

Among the items donated were Zebco rods and reels, My Buddy tackle boxes, Glen Evans lures, and floats and sinkers from the Ideal Company.

the outdoor world



Bowhunters Post Reward for Poachers

The Georgia Bowhunters Association has announced that it is posting a \$50.00 reward on poachers to help the State Game and Fish Commission enforce game laws during the special archery season or during a managed archery hunt.

Richard Parker, president of the GBA, made the announcement in the monthly publication of the Association, *The Long Drawers*. Under the terms of the offer, any person would be eligible to receive the reward for giving information to the State Game and Fish Commission leading to the arrest and conviction of anyone involved in illegal killing of deer, turkey, or bear during the October archery season and on management area bow and arrow hunts.

Parker said that the reward idea grew out of reports that some violators were illegally killing deer with a gun during the archery season and claiming the animals were killed with a bow, even though it is illegal for an archer to carry

a firearm while hunting.

"I don't believe that any true sportsman would do anything like that," Parker said. "This reward is just an inducement to archers and other persons as well to turn in any of the handful of game hogs who are violating the laws and trying to give the majority of honest archers a bad name. We feel that legal archery hunting during the special season doesn't hurt the deer population, and we don't want to see a small group of outlaws ruin it for everybody."

The Georgia Bowhunters Association has more than 600 members in 50 affiliated archery clubs throughout Georgia.

Marine Toilet Inspection

Augmented inspection teams are again checking toilet-equipped pleasure boats on Georgia's waterways in a continuing and intensified program of enforcement of the state's marine sanitation regulations, according to R. S. "Rock" Howard, Jr., Executive Secretary of the Georgia Water Quality Control Board.

The stepped-up, statewide inspection

program, initiated on a limited scale last summer, will continue throughout the boating season. Boat owners whose craft are found to be in compliance with the marine sanitation regulations will be issued a certificate of inspection.

The regulations derive from the Georgia Water Quality Control Act which requires that marine toilets be equipped with suitable waste treatment devices and that these units be in operating order. The regulations apply to all boats, houseboats, boathouses and "visiting" watercraft from other states—any craft equipped with a marine toilet.

"Results of our sampling of high use recreational waters such as Lakes Allatoona, Clark Hill, Hartwell, Lanier, Walter F. George and other large impoundments indicate these waters are clean as well as aesthetically beautiful," said Howard.

"In 1960 there were only 24,000 watercraft of 10 or more horsepower registered in Georgia. By 1967 that figure had grown to 84,000. More boats mean more potential sources of pollution, especially when a growing percentage of these craft have toilet facilities aboard. Our increased marine sanitation enforcement effort is necessary if we are to continue to have clean, healthy and attractive recreational waters."

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.

Pine Tree Food?

This is an individual opinion. I have hunted for rabbit and squirrel in the past, say ten years ago. But now I feel guilty when I hunt for squirrels, because the poor little things don't have any means of survival. A squirrel can't live on pine burs.

The paper companies should be placed responsible for some means of support for what little wildlife we have in North Georgia: walnuts, pecans, or any food bearing plant that would pertain to the wildlife in any particular area.

I wish I had the authority to ask the questions and make some suggestions.

Huewell Davidson
Alto, Georgia

Women Fishermen?

I wish to take exception to the part of your article concerning women fishing behind the fish hatchery at Lake Burton (Trout Time, April '68). I have fished for trout for the past five years here in Georgia in streams ranging from rough, rough _____.

(My husband said that if I let this name get out he would—well, get upset. Just take my word for it; it's rough.) Creek in Northeast Georgia to just plopping along in a boat on the Chattahoochee River—well, not exactly plopping when you consider it was a canoe and we put in at the dam, and my husband had on boots so he wouldn't have to get out at the rapids. So guess who flopped around on all those rocks guiding the canoe? We also fished the Chatooga in a canoe below Burl's Ford, near Earl's Ford. Of course, we've also fished Cooper's Creek, Rock Creek, Tallulah, etc.

Number one, I feel that I have amply proved that I am able-bodied, and number two I certainly hate to be classed with the handicapped persons. Although being classed with a person too young to require a license is rather flattering at my age.

However, I have had my share of fun at that short stretch of water. To be honest though, I haven't always caught fish so I'm glad that I can still fish there. I don't know what my poor husband will do though, standing there watching me catch fish.

Mrs. R. E. Mosby
Tucker, Georgia

Pollution Problem

I was delighted to find in the April, '68, edition of *Game and Fish* an article on shad fishing. This is a sport few people know much about. Unfortunately, unless something is done about the wholesale wasting away of our fresh-water _____ by pollution, there is little chance of many sportsmen ever enjoying the excitement of _____ battling shad on a light spinning rod.

On a recent shad fishing trip to the Ogeechee River, I was appalled at the amount of chemical foam one could see floating on top of the river. I was told that the chemicals were released by a paper mill shortly up the river. I was also told that the famous and once fabulous redbreast fishing of the Ogeechee has now almost completely disappeared. It's time Georgia sportsmen woke up to the fact, that unless something is done, we are going to lose one of our greatest natural heritages—our rivers. Congratulations to Georgia Game and Fish for doing such a fine job in trying to awaken the public to their own plight.

Robert Lee Rone
Athens, Georgia

The State Water Quality Control Board is doing a very good job under the circumstances in attempting to clear up water pollution and to prevent future pollution from occurring, but they will require the active interest of the public and of politicians if they are to fully succeed.

I have enjoyed reading *Game & Fish* for the past year, and I am renewing my subscription for three years. In my opinion, *Game & Fish* is the best.

I would like to see some articles on wild turkey, bear, and more articles about our Georgia deer.

W. K. Richardson
Decatur, Georgia



continued from inside front cover

they have been in the past, and are spreading out. But bag checks of hunters indicate that the area is not producing nearly as many deer as it could and should.

One of the reasons for this is the extraordinarily long season that has been allowed there in past years, coupled with the greater effectiveness of legal use of dogs for deer hunting in a long 81 day season, compared with the one week of no dog hunting allowed in some Georgia counties in North Georgia with more deer and better habitat.

On top of this, the season has opened on October 15 for the past two years while the rest of Georgia was opening on about November 4, meaning that hunters from all over Georgia descended on it to hunt the two weeks before their own seasons opened. Some of these hunters have dogs themselves, and others hunt with friends or relatives who have them. Many "semi-professional" deer hunters make every opening day they can, greatly increasing hunting pressure on an opening day that is different from other areas of the state. This is the reason that a uniform opening day state-wide helps to spread out hunting pressure and keep it from being concentrated in any one area, especially one that needs less hunting, not more, to help produce better future deer hunting. Since the number of deer

hunters in Georgia is drastically increasing every year, this is especially important.

In addition, reproduction studies made by Georgia game biologists in the years of 1962, 1963, and 1964, show that deer breed on the Georgia coastal islands from September 5 through October 30, and in the five counties surrounding Fort Stewart from October 1 to November 10. Thus, opening the season on October 15 would mean subjecting deer in most of Southeast Georgia to active harassment of their breeding by dogs during most of the rutting period, cutting breeding and reproduction. At the same time, many fawns are still with their mothers in October.

Part of the demand for an early season in Southeast Georgia stems from the South Carolina deer season, which opens on August 15 in some counties September 15 in others, and November in still others, all with the use of dogs legally allowed. It is argued that what can be done in South Carolina is just as sensible for Georgia. This just isn't the case.

For one thing, most of the land in South Carolina that opens August 15 is in private ownership on a few large plantations, where hunting is tightly controlled and regulated. Few hunters have access to the land, and the hunting pressure is relatively light, compared to areas where the land is more accessible to hunters without stringent controls by landowners. Very little of the land in Southeast Georgia is protected so well.

As a matter of fact, game biologists in both South Carolina and Georgia don't think that the South Carolina deer seasons and regulations, set without biological advice by the legislature rather than the Commission, are necessarily the best for most areas of South Carolina, either. It's common knowledge in the South Carolina counties bordering Georgia that many of the deer come across the Savannah River into South Carolina, providing South Carolinians with deer hunting when they otherwise would not have any, except for Georgia's better conservation program. This is especially noticeable in the areas opposite the middle and north Georgia counties where deer hunting with dogs is not allowed, compared to the adjacent South Carolina areas where deer are dogged out each year.

It is the job of the Game and Fish Commission to do what is best for Georgia's wildlife resources. In the long run, that is also the best thing for Georgia's sportsmen. Hunters who criticize the Commission for taking the best advice available to it from its professional biologists should first consider all the information available before passing judgment on whether they have been wronged or not.—J.M.

Sportsman's Calendar

EVENTS THIS MONTH

A meeting of the Georgia Gun Clubs Association, Inc. will be held July 27, at Greenbriar Auditorium, Greenbriar Shopping Center, in Atlanta.

SEASONS NOW OPEN

Mountain Trout

Open Stream Season—April 1, 1968 through October 15, 1968.

Creel Limit—Eight trout of all species per person per day. Possession limit eight trout.

Fishing Hours—30 minutes before sunrise to 30 minutes after sunset on all open trout streams. Trout fishing is allowed at night on all large reservoirs.

Management Area Stream Season—May 1, 1968 through Sept. 2, 1968 on designated days only as shown in the chart. For a complete set of trout fishing regulations and directions to managed streams and the most popular open streams, write to the State Game and Fish Commission, 401 State Capitol, Atlanta, Ga. 30334.

Lake Trout Season—There is no

MANAGEMENT STREAM SCHEDULE

Management Area	Stream	May	June	July	August	September
BLUE RIDGE	Jones (Artificial Lures)	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Montgomery	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Nimblewill	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Noontootley (Artificial Lures) (Catch and Release)	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
CHATTAHOOCHEE	Rock Creek	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
	Chattahoochee	Sat., Sun.	Sat., Sun., Wed.	Sat., Sun.	Sat., Sun.	(Sun., Mon. Sept. 1 & 2)
CHESTATEE	Dukes	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	
	Boggs	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Dicks	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
LAKE BURTON	Waters	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Dicks	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	
	Moccasin (Not stocked)	Sat., Sun.	Sat., Sun.	Sat., Sun.	Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
	Wildcat	Sat., Sun.	Sat., Sun.	Sat., Sun.	Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
WARWOMAN	Finny	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Sarabs	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Tuckaluge	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Walnut Fork and Hoods Creek	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)

closed season on trout fishing in Georgia lakes with the exception of Dockery Lake.

Lake Trout Fishing Regulations—14 inch minimum size limit on all species of trout in Lakes Blue Ridge, Burton, Clark Hill, and Lanier. No size limit on trout in other lakes.

SEASONS OPENING NEXT MONTH

Squirrel

Early Season—Aug. 15, 1968 through Sept. 7, 1968 in the following counties only: Dawson, Fannin, Gilmer, Habersham, Lumpkin, Murray, Rabun, Towns, Union, and White.

Bag Limit—10 Daily

JULY 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1. Mon.	11:37	5.9	11:55	6.4	5:31	5:55
2. Tues.			12:31	6.1	6:19	6:55
3. Wed.	12:49	6.2	1:31	6.4	7:13	7:55
4. Thurs.	1:43	6.0	2:31	6.6	8:13	9:01
5. Fri.	2:43	5.9	3:37	7.0	9:18	10:07
6. Sat.	3:49	5.9	4:43	7.3	10:13	11:07
7. Sun.	5:01	5.9	5:49	7.7	11:07	
8. Mon.	6:01	6.1	6:49	7.9	12:07	12:07
9. Tues.	7:01	6.3	7:43	8.1	1:06	1:07
10. Wed.	7:55	6.4	8:31	8.0	2:01	2:01
11. Thurs.	8:49	6.5	9:19	7.4	2:49	2:55
12. Fri.	9:43	6.5	10:13	7.4	3:37	3:49
13. Sat.	10:31	6.4	10:55	7.0	4:25	4:37
14. Sun.	11:25	6.3	11:49	6.5	5:13	5:25
15. Mon.			12:13	6.2	5:55	6:13
16. Tues.	12:31	6.1	1:01	6.1	6:43	7:13
17. Wed.	1:19	5.7	1:49	6.1	7:31	8:07
18. Thurs.	2:07	5.3	2:43	6.1	8:25	9:01
19. Fri.	2:55	5.1	3:37	6.1	9:13	9:55
20. Sat.	3:49	4.9	4:31	6.3	10:01	10:49
21. Sun.	4:49	4.9	5:19	6.5	10:50	11:37
22. Mon.	5:43	5.1	6:07	6.7	11:37	
23. Tues.	6:31	5.2	6:49	7.0	12:25	12:30
24. Wed.	7:07	5.4	7:25	7.1	1:13	1:07
25. Thurs.	7:49	5.6	8:07	7.2	1:55	1:55
26. Fri.	8:25	5.9	8:37	7.2	2:31	2:37
27. Sat.	9:00	6.1	9:19	7.2	3:07	3:19
28. Sun.	9:43	6.3	10:01	7.0	3:43	4:01
29. Mon.	10:25	6.5	10:43	6.8	4:25	4:43
30. Tues.	11:13	6.6	11:31	6.6	5:01	5:31
31. Wed.			12:07	6.7	5:49	6:31

TIDE TABLE

JULY-AUG. 1968

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)	0	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
Wa-saw Sound	0	00
Oss-baw 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
JULY	3	10	17	25
AUGUST	1	8	15	23

AUGUST 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1 Thurs	12:19	6.3	1:07	6.8	6:43	7:31
2 Fri	1:19	6.0	2:01	6.8	7:43	8:43
3 Sat.	2:19	5.8	3:19	6.9	8:49	9:49
4 Sun	3:31	5.7	4:31	7.1	9:55	10:55
5 Mon	4:49	5.8	5:43	7.4	10:55	11:55
6 Tues.	5:55	6.1	6:37	7.4	12:01	
7 Wed	6:55	6.4	7:31	7.9	12:49	12:55
8 Thurs	7:49	6.7	8:19	7.9	1:43	1:49
9 Fri	8:31	6.9	9:01	7.7	2:31	2:43
10 Sat	9:19	7.0	9:43	7.4	3:13	3:25
11 Sun	10:01	6.9	10:25	7.0	3:55	4:13
12 Mon	10:49	6.8	11:07	6.5	4:37	4:55
13 Tues.	11:31	6.6	11:43	6.1	5:19	5:37
14 Wed			12:13	6.4	6:01	6:25
15 Thurs	12:25	5.7	1:01	6.3	6:43	7:19
16 Fri	1:07	5.4	1:49	6.2	7:31	8:19
17 Sat	2:01	5.1	2:43	6.2	8:25	9:19
18 Sun	2:55	4.9	3:43	6.2	9:25	10:13
19 Mon	4:07	5.0	4:43	6.4	10:19	11:07
20 Tues	5:07	5.2	5:37	6.7	11:07	11:55
21 Wed	6:01	5.5	6:19	7.1	11:55	
22 Thurs	6:43	5.9	7:01	7.3	12:43	12:43
23 Fri	7:25	6.3	7:43	7.5	1:19	1:31
24 Sat	8:01	6.7	8:19	7.6	2:01	2:43
25 Sun	8:43	7.0	8:55	7.6	2:37	2:55
26 Mon	9:20	7.3	9:37	7.4	3:19	3:43
27 Tues	10:07	7.4	10:19	7.1	3:55	4:25
28 Wed	10:55	7.4	11:07	6.8	4:37	5:13
29 Thurs	11:43	7.3			5:25	6:07
30 Fri	12:01	6.4	12:43	7.1	6:19	7:13
31 Sat	1:01	6.0	1:55	7.0	7:19	8:25



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GEORGIA

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August 1968

Volume III

Number 8



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation.

Contents

The Magnificent Okefenokee	J. Hall	1
Look Ahead To Arrowhead	Marvin Tye	5
Water Wizards!	Jim Morrison	7
Go Bird Dog, Go	Jim Tyler	10
Challenge Noontootley	Claude Hastings	12
Outdoor World		15
Sportsmen Speak		16
Sportsman's Calendar		17

Lester G. Maddox
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The Right to Bear Arms



Governor Maddox

by Governor Lester G. Maddox

I am fighting, even now, just as sportsmen and conservationists throughout America are fighting, for the preservation of the constitutional right to have and to bear arms. Many governors and other leaders in government would take away the deer hunter's rifle and melt down the quail shooter's double-barrelled twelve. They pretend that they only want our guns registered, but many will admit, when pressed, that their ultimate aim is to take all guns away from private citizens. The mayors of America have already suggested that handguns be reserved for the use of police only.

Potentially, a golf club is a lethal weapon. Why not require their registration, too? How many people have been killed by a stray golfball? Not many, but enough to show that golfballs can kill. And many a brutal murder has been committed with a baseball bat. So why not register baseball bats? And since baseball bats are just wooden sticks, we would have to register all wooden sticks. To carry the point to an admittedly ridiculous extreme, if we attempt to eliminate all potential weapons of murder and assassination, then the common ordinary rock must be controlled in some way, too. After all, did not David fell Goliath with a stone from a sling?

It is said that in the veins of men there courses the blood of either the hunter, the tiller of the soil, the merchant, or of the artist. I must admit that I have inherited the blood of the merchant, if this ancient theory has any validity, but I would not deny the hunter his urges simply because I do not share his zeal for a sport. More importantly, I would not deny the farmer his principal source of protection from animals of both the two-legged and the four-legged varieties.

So far, whenever I challenge somebody who is "for" strong gun control legislation, I usually find him backing down after a few minutes with the apology of "Well, I really hadn't given it all that much thought. It just sounded like a good thing." If parrots could vote, this is the year when these colorful birds would find themselves the object of a massive voter registration drive. I sincerely believe that thinking people know better.

(Comments made by Governor Maddox to members of the Outdoor Writers Association of America during their national convention at Callaway Gardens, Ga., June 23, 1968.)

ON THE COVER: The Lake Spivey Aquamaids, doing their water ballet on skis. For more photographs by Ted Borg, see "Water Wizards" on page seven.

ON THE BACK COVER: The colorful brook trout, the only truly native Georgia trout. To read about some of the best native trout fishing in Georgia's mountains, read Claude Hastings' "Challenge Noontootley" on page 12. Painting by Kent Pendleton.

PHOTO CREDITS: Ted Borg 5, 6t. & b. 1, 7, 8, 9, 12 and 13; J. Hall 1, 21., 3, and 4; Claude Hastings 14; Dan Keever 15t.; C. B. O'Neal 2r.; Jim Morrison 6b.r., 15b.; Jim Tyler 10, 11.

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The Magnificent Okefenokee

a Feeling of Constancy

by J. Hall



The agony of the giant. The great Okefenokee Swamp is suffering from the prolonged drought in south Georgia, and not since 1954 has the water in this region been so low. This is an example of the present condition of many of the boat "trails." The colored area indicates normal water level.

I cut the motor and the boat coasted, slowing. The water gurgling along the sides was loud in the sudden stillness. The big bull gator lay broadside to us, an unwinking eye watching every move. Yet there was about him an air of complete unconcern.

In the boat with me was my son John and C. B. O'Neal, fisheries biologist for the State Game and Fish Commission. We were in Billy's Lake, in the Okefenokee Swamp.

"That feller's a long way from home, C. B.," I said softly.

When he answered, his voice was low and edged with sarcasm. "Now how do you know that? You gonna try to tell me you're on a first-name basis with all the alligators in the swamp?"

I grinned. "No, not all of 'em, just a few. But I do know old 'Squinch Eye' there."

I picked up my fishing rod and pointed the tip at the gator's head. There was a full three feet between the

ripple as his powerful legs drove him toward the boat. He cruised rapidly to within inches of the noisy object. Then he realized it wasn't something to eat and changed course disdainfully, moving away to lie broadside to us again, a few feet away.

Johnny was fascinated by the game, and began "playing" the big gator with his fishing rod. Twice more the big saurian rose to the teasing until finally, completely disgusted with all of us, he silently submerged, tail first, and sank from sight. In seconds, there wasn't even a ripple to mark the spot where he disappeared.

It is my considered opinion that there is no more fascinating spot on earth than the magnificent Okefenokee Swamp. I have been there numerous times; I hope to return many more. In the Swamp, there is a great sameness... every place you go looks like some place you've just been. Yet every part is different, and even the places you've been many times before look different each time you go back. This is one of the strange features of this mysterious land.

This time, the swamp looked different than any other time I have ever seen it, for it was literally drying up. There had been an acute lack of rain for several months in South Georgia, and I had heard that the situation was becoming critical in the Okefenokee.

I had planned an expedition for several months. Johnny Hickox, a guide at the Okefenokee Swamp Park at Waycross, had promised to take me on a trip all the way through the swamp, a journey of some 30 or 40 miles by boat trail. All through the long winter I had looked forward to it, and during all those months, it hadn't rained. I called Johnny and asked him what the situation looked like for our trip.

"J, it's impossible," he said. "This place is drying up. We can't even go half the distance we usually go on our tourist trips up the trail from the Park. It's so dry, the alligators rattle when they walk. The only way you could get a boat through the swamp would be to haul it by truck. And even then, the dust would be so thick it would probably clog up the carburetor!"

Well now, that sounded interesting. Knowing Johnny, who's been in and around the swamp since the day he could walk, it sounded like an exaggeration. In fact, it even sounded like something I might say. I decided to see for myself.

When I told C. B. about my plans to go into the swamp, he was hot for the idea. He had been itching to get back there and look over the situation too. So, when the opportunity presented, he was quick to make arrangements to go along. And I was mighty glad to have him.

We embarked from the landing at the Stephen Foster State Park at Fargo, and from then on, we had problems. We settled Johnny in the center of the boat to balance the load as evenly as possible. We soon found there was no such thing. In the canal from the Park into Billy's Lake, we bumped along the bottom all the way. I nursed the boat along wincing every time the poor prop hit a log or rough place on the bottom. In other words, I made faces all the way back to Billy's Lake.

Finally, we came to deeper water and the Mercury shook loose the mud and came to life. We swung left, and headed up the lake toward the channel leading to the dam. The situation was immediately obvious.

The first thing that struck me was the roots of the trees. Cypress roots and "knees" that had been completely submerged the last time I was there were now totally exposed. The banks of the lake were a mass of exposed roots, and the image came to my mind of fingers thrust deeply into the quaking ooze, feeling vainly for the life-giving wetness which surely must be there... somewhere. The next impression which came to my mind was of the alligators. It was nearly 11:30 a.m. and under usual conditions, there would have scarcely been a single gator to be seen. The big lizards usually hole up and snooze during the hot part of the day.

But not today. Everywhere we looked, there was a gator. Their bonnets snouted the water, and they cruised around the boat, watching us. I quickly reasoned that there weren't simply more gators than usual, there must be something different. C. B. quickly affirmed this.

"J, I've never seen so many gators," he remarked. "They've come in from back in the swamp to find more water."

They were there, all right, and we almost had to thread the boat among them. Their snouts lurked among the "bonnets," and their bulging eyes seemed to follow our every move. And it was there that we saw my old friend, "Squinch Eye." But the alligators weren't the only signs we saw of the dryness throughout the swamp.



Old "Squinch Eye" cruises watchfully. This big gator is one of hundreds who have migrated to the fringes of the swamp in search of deeper water and food, thus making themselves easier targets for frequent poachers.

bulging periscope eyes and the twin snorkels at the tip of his leathery snout. Across his head stretched a deeply indented scar, and the blind eye gleamed opaquely. A fight with another bull, a brief but memorable bout with a boat prop... who knows?

"Yeah, I guess he is pretty distinctive at that," C. B. conceded.

"I'll have to go along with the distinctive part, anyway," I grinned. "He usually stays back in Minnie's Lake. I guess he must be the Boss Bull of the area. Anyway, he's got quite a racket working back there. He hangs around and watches the fishermen. When they hook one, he slides in and lightens their line for them. You got to reel fast to get ahead of him. I'll tell you!"

C. B. laughed. "He sure doesn't look like he's missed many meals. Not lately, anyway."

"Yeah, he's healthy all right. And meals aren't all he doesn't miss." I began splashing the water lightly with my rod tip. Immediately the water moved as the old bull swung his head in attention. There was scarcely a

The swamp is a good place to be alone with your thoughts. Once the din of your outboard motor stops, silence closes in, except for the occasional call of a bird or the swirl of a fish breaking the mirror-like surface of the water.



Once we left Billy's Lake and entered the old channel of the Suwannee River, we began having trouble again. Time and again, the outboard's prop chattered over some obstruction under the water. Each time I held my breath, hanking the Lord there was no sheer pain to break. And then we broke free and the motor sung happily again. So did I, almost. At several points, we had to get a running start to bounce over obstructing logs across the channel. I was worried about the first one. It was a big log, right in a sharp turn of the trail, and three or four inches of the thing were sticking up out of the water. I pulled up and stopped.

"Try it, J," C. B. suggested.

I looked at him as if he were crazy, then feeling absolutely insane, I decided to do just that. I put the motor in reverse and backed up about fifty yards. We sat there for a few moments, while the driver built up his nerve.

"O.K., hang on, Johnny," I cautioned, and cranked down on the throttle.

Johnny gripped the sides of the boat as we sped through the water, and I was wondering just what in the heck I was about to do to the boat and the three of us. With a thump, the angled prow hit the log. Another thump, and we were across it and speeding on our way. I quickly cut the throttle and looked back.

"Well, how 'bout that!" There was the log, and here we were, still on our way! Johnny still wasn't sure of it though. He'd look back at me as if I were an idiot, and then at C. B. as if he was no better for daring me to try it.

That was just the first of several, and each time, I had the feeling that somehow, we had to keep going. And as the channel got narrower and narrower, somehow the feeling of empathy within me grew stronger. This mighty giant, this colossal aquatic hulk was begging... of thirst.

But even in its agony it had strength and beauty. The slender cypress trees, their finger-like roots probing the earth under water, their tall trunks reaching toward the open sky, stood like sentinels, their branches hoarily festooned with grey Spanish "moss." And at their feet, stretching across the "prairie" as far as the eye could see, was a riot of yellow color from a million blossoms. "C. B., what is it?" I asked.

"Utricularia, J," he answered. "Bladderwort plants."

We stopped and examined a plant. Beneath a yellow blossom that resembled a sweet pea, there lives a plant as precious as its flower is beautiful, for I soon learned, the plant itself is a deadly silent hunter. A carnivore, the bladderwort captures aquatic insects among its stringy, clinging roots, and there, it digests them. It is but one of many

such "meat eating" plants of the swamp, for pitcher plants and other insect eaters thrive in great numbers.

It is well they do, for never on any of my trips have I been particularly plagued by insects. Certainly, these hungry plants must receive a good portion of the credit, for in a swamp area such as the Okefenokee, without such natural controls, the insect hordes would be high unbelievable.

After some time, we came within sight of the dam, and this was my first view of this much discussed structure. The Suwannee Dam was constructed following another severe drought... that of 1954. At that time, I was living in North Carolina, and can well remember the openly stated fears that the Okefenokee would dry up and might never reappear again in its well known form. Finally the rains came, and with them many sighs of great relief, for even in the Carolinas we were severely rationed on water. The swamp again regained its majesty. But in that time it had suffered terribly. During the prolonged drought, a series of fires had destroyed thousands of acres of timber, and the scars of this ravaging are evident throughout the swamp today.

It was decided, therefore that measures should be taken to assure that the Okefenokee would never again reach such a low water level, and a dam, some five miles long, was constructed across the lower end of the swamp at the headwaters of the Suwannee River. This controls the flow of the water leaving the swamp, and maintains a fairly constant level in at least portions of the swamp.

A great many biologists and geologists have disagreed with the construction of the Suwannee Dam, for they feel that the protection of the swamp against fire will ultimately greatly shorten its life through the acceleration of succession. The Okefenokee attained its characteristics of "The Land of the Trembling Earth" through a process biologists call "succession." A growth of aquatic plants eventually die and sink to the bottom. More plants grow, die, and also sink. And as they decay on the bottom, they become peat. Much of the so-called "land areas" of the swamp are actually vast islands of peat, with water underneath. It is this unstable "ground" that gives the swamp its name, for even the towering cypress trees are not actually rooted in the earth but in this vast blanket of peat which trembles and shakes, shifting constantly. This continual formation of peat will eventually spell the doom of the swamp, for it will ultimately be completely filled in.

During periods of drought, such as now and in 1954, natural fires burned away a great part of the peat which had formed. The fires of 1954 burned vast holes in the swamp, and the peat



One of the perils of swamp travel. It takes a mighty good motor to make it through the weeds, grass, cypress roots and stumps that have been left all but exposed by the low water.



There may be a lunker bass right by that stump, just waiting for the bait. The swamp is one of the most popular fishing grounds in south Georgia, and its dark water teems with bass, jack, warmouth and of course, the bowfin. It's not unusual for a big jack to leap right into your boat when the prop disturbs his hiding place.



Their mama loves 'em. These rather unlovely chicks were among hundreds in a large blue heron rookery found near Manor, at the edge of the great swamp, by Paul Johnston, Ware County Wildlife Ranger. Paul and the author kept a wary eye out for gators as they waded through tangled brush to get this unusual photograph.



Although the Okefenokee is a National Wildlife Refuge, game and fish biologists and wildlife rangers of the State Game and Fish Commission assist federal authorities in management and enforcement of conservation measures in the Swamp. Fish biologist C. B. O'Neal of Valdosta is one of these men.



smouldered for months. Now, biologists fear that the rate of succession will be accelerated because peat fires will now be impossible. Like so many problems, we become faced with two dilemmas and must make a choice. In this case, it was either face the danger that the swamp might be completely burned up some day, or eventually choke it to death with its own vegetation.

We left the boat and walked up on the dam to look at the Suwanee. The "river" was only a mud hole at the foot of the dam, and according to C. B., the only water being fed into the Suwanee at this point was coming through a hole in the dam's spillway. We soon saw that the pool of water was teeming with fish, and we unlimbered our rods to have a try at them, but they weren't having any. I decided they were too busy simply trying to breathe in that still, clogged hole to worry too much about something to eat.

Somewhat sickened by what we had seen, we went back to the boat and headed back to Billy's Lake. This time I wanted to go to Minnie's Lake to have a look there. We had been warned we probably couldn't get through, but we decided to go as far as we could.

As soon as we turned into the trail toward Minnie's Lake, we began hitting obstructions, and in a few minutes, we were steadily plowing the bottom, churning up a roiling wake of peat behind us. From time to time, the boat would lurch as the prop slammed into a log or stump. We continued for another mile or so until finally I began to fear for the motor. It was heating up, and I was afraid it might burn out, so, discouraged, we turned back. The water was getting shallower and shallower, in a trail that had always been no problem to boat passage.


C. B. and I were both preoccupied with our thoughts on the return trip, and even Johnny seemed to have caught the spirit of our despondency, for he also sat quietly in the boat, just looking around. It was pathetic to see the swamp in this condition, but we both knew this is only a passing stage. The mighty Okefenokee has lived for millions of years. It will continue.

And it will continue to be a naturalist's paradise. The swamp was formed millions of years ago as a great inland sea. When the coastal plain of Georgia emerged from the ocean, a great lake was formed. Through the years, as water drained into this vast basin, the salt was leached away and a fresh water lake was

formed. Within this lake, several islands stood out. . . Billy's Island, which became a refuge for the Seminole Indian and was named for their chief, Bill Bowlegs. Minnie's Island was named for Billy Bowleg's wife. Strange Island, and several others are there. And scattered throughout the swamp are a number of lakes such as Billy's Lake, Minnie's Lake, Big Water and others. Through succession, the areas around these lakes have gradually closed in, and travel between them is mostly limited to the boat "trails," many of which were hacked open by the Indians. Much of the swamp is covered by vast grass savannahs or "prairies." They look like solid ground, but it's risky to try to walk on them. Like most of the "land" in the swamp, they're simply a floating mass of vegetation, entangled roots and peat on which the grass has taken root, and the explorer might plunge through this "ground" into the water beneath.

This mysterious land abounds in wildlife and natural beauties. More than 200 different varieties of birds can be seen, and many species of wildlife thrive within the boundaries of the 341,000-acre National Wildlife Refuge, such as deer, bear, turkeys, and of course, the strange creature for which the swamp has become famous, the alligator. And there are enough of the big lizards to give the visitor a liberal thrill, but they aren't as plentiful as most folks think. Poaching is a major problem, and hides bring from five to seven dollars a foot. The intrepid poacher is pretty shrewd, stretching a six foot hide to a luxurious eight and pocketing the difference.

Fishing is good here too, and the swamp is noted for the stringers of warmouth and the lunker bass which lurk among the cypress roots. The water is clear and clean, and I personally have no fear of drinking it. The tannic acid from the cypress trees which gives the water its deep black color also purifies it.

Wild flowers fill the swamp with a riot of color during the spring, and in the fall, changing leaves produce another kaleidoscope of multicolored hues. Everywhere a million changing scenes rise to meet and fill the eye, and as the visitor travels through this silent land, so ancient yet constantly reborn, so mysterious yet seemingly so simple, so ugly in its harsh demands upon the life that exists within it, yet so utterly beautiful, a feeling of peace pervades the being, for he begins then to understand the meaning of constancy. 

The end of the long trail. This is the canal leading from the swamp to the landing at the Stephen Foster State Park at Fargo. Other entrances to the swamp are at Camp Cornelia, near Folkston, and the popular Okefenokee Swamp Park at Waycross. This picture clearly illustrates the magnificent reflective qualities of the dark water of the swamp.

■ George T. Bagby, director of the Georgia Game and Fish Commission, has announced that the Commission has purchased a new public fishing area, located in Floyd County about 18 miles northeast of Rome.

The new facility, known as the Arrowhead Public Fishing Lakes, contains two fishing lakes which will be stocked with largemouth bass and channel catfish. The larger lake, 28 acres, will be opened for public fishing beginning in October, 1969. The smaller 18-acre lake will be opened for public fishing in the fall of 1970. The area will also feature picnic tables, nature trails, and overnight camping sites.

Look ahead to **ARROWHEAD**

by Marvin Tye



Bagby said the new area also contains 29 ponds which were originally part of a commercial channel catfish hatchery. The hatchery facilities are now being used primarily to raise smallmouth bass and walleyes for stocking in northwest Georgia waters. These facilities are also being used in the experimental raising of striped bass utilizing new hatchery techniques.

"There are many streams in Northwest Georgia that are too cold for largemouth bass and too warm for trout," Bagby said. "We plan to introduce smallmouths into these streams and provide good fishing in locations where such fishing is not to be found at present. Walleyes will be introduced into some of the same streams and into some Northwest Georgia Lakes."

The new recreation area was purchased by the Game and Fish Commission in April for \$90,000 with assistance in funding from the U.S. Bureau of Outdoor Recreation. These federal funds, \$40,000, were derived from the Land and Water Conservation Act which authorized the sale of Golden Eagle Passports. These passports cost seven dollars and enable the holder to enter all national parks and other federal recreation areas and to use certain designated facilities at no further charge.



In addition to the public fishing lakes, the new area also contains 29 ponds which will be used primarily for the raising of walleyes and smallmouth bass. This was formerly a commercial hatchery for channel catfish.



Area Manager Jess Kinsey examines walleyes in the hatchery facility at Arrowhead. Striped bass are also being raised here in an experiment to discover new hatchery techniques.



Northern smallmouth bass fingerlings will be raised at the hatchery from adult brood fish and stocked in many Northwest Georgia streams that are too cold for largemouths and too hot for trout. This should greatly improve stream fishing.

Water Wizards!



Flying high! 100 feet up, Jeff Golden of Thomasville, Georgia, amazes spectators at the weekly Lake Spivey ski show at Jonesboro, near Atlanta.

by Jim Morrison/Photos by Ted Borg

Water Wizards!

If you'd like to see something different on your next trip to Atlanta, take in the unusual ski show at Lake Spivey.

Located 20 miles south of the State Capitol near Jonesboro, Spivey was opened as a privately operated recreational area 10 years ago. Since that time, it has become one of the most popular spots in North Georgia for picnicking, swimming, fishing, waterskiing, and a host of other amusements. In fact, Spivey is believed to be the only place in Georgia where a sailboat can be rented.

Each weekend on Saturday and Sunday at three p.m., Spivey's 600 acre lake is brightened by the ski show, a gala spectacular featuring five of the prettiest "Aquamaid" you're liable to run into around any beach, and five "Jumping Jacks," the male members of the show who do the less glamorous but possibly more exciting stunts like jumping, kite flying, and bare-foot skiing.





Look out below! By "cracking the whip" as they near the ski jump, the "Jumping Jacks" reach speeds of up to 55 miles an hour, enabling them to fly through the air for more than 130 feet. In one trick, skiers make a 360 degree turn in the air before landing.



Left: Looks like fun! Members of the Spivey group make the pyramid seem easy. As many as 15,000 people see the show every weekend from May through Labor Day.

Left: Nice work, if you can get it. After breaking the pyramid, the girls ride on the boys' skis. The Spivey shows are held every Saturday and Sunday at three p.m.



Two good reasons for the popularity of the Spivey ski show are lovely Jan Barrows of Atlanta (1) and Sarah Plunkett, Jonesboro.



By Jim Tyler

Field dog men are proud of their dogs. And they wouldn't argue if you said nothing is prettier.

■ Many sights bring a quick heart leap or a sudden flowing of inner pleasure to sportsmen. And to a bird dog man, this flush of soul-felt joy surely comes when a dog romping and sniffing through a field freezes suddenly to a good point. Here is his cup of tea.

I thought about this as I drove my station wagon up a dirt road north of Baxley, on the way to the Appling County Annual Field Trial. But until I parked my vehicle and stepped into the world of some genuine bird dog enthusiasts, I didn't know how deep their pleasure ran.

It was early morning, a November Friday. There was a chill to the air, but blue sky wouldn't last long. I

could see a large campfire, men standing around. Horses were tethered on pine trees, and dogs leashed on other pines.

"Have they started?" "What is happening?" I asked the first man I came to as I walked from the road to the gathering.

"Yeah, they've started, got a pair of them out on the back course now."

Soon one dog, and then another dog, came panting back into the general area where the men were gathered. Then came several men riding horses. I watched.

Two more dogs were brought up to a makeshift starting line a short distance from the campfire. A whistle blew. The

leashed dogs were released. Away they went, bounding through the high grass and pine terrain. They disappeared. Then several mounted men followed the dogs, going easy and slow, the horse walking.

About a half hour later, dogs and men returned. And, soon, the whistle blew again, and another pair of dogs and a group of men disappeared into the trees.

Later, after several such groups started and returned, I corralled Emmett Johnson, President of the Appling County Field Trial Association. "Emmett, you'll have to explain this to me," I said.

By now, the series of two different dogs, instead of coming back to the general vicinity of the starting area, would come hurrying into a relatively open area adjacent to the starting area. Soon the men following on horseback would arrive. The two dog handlers of the dogs on trial would dismount and walk into the field, each "talking" to his dog and working him around the area looking for quail. A number of quail had been placed in the open area. When a dog would come to point, there would be cheers from spectators on the edge of the "bird field." The handler would walk up to the pointing dog, then kick the grass or brush where the quail was hiding. When the quail flew up, the man fired a blank shell from a pistol. If the dog was a real good bird dog, he would not bound off after the flying quail.

"Why are these dogs pointing for quail? Several pairs of dogs left out of here and came back without going into the bird field," I said.

"Those were the dogs entered in the Amateur Puppy Trial," Emmett said. "They are young dogs and the judges just see how well they handle themselves and stay out in front of the horses. They do not try to point. Now we are in the Open Shooting Dog part of the trials."

"You always run just two dogs at a time?" I asked.

"Yes, the two dogs are called a brace. Each dog has a different owner."

"And the men on horses coming along behind the brace of dogs? Each dog has a handler or owner, and there are two judges, and the rest of the mounted men are spectators?"

"Yes, that's right," Emmett nodded.

"Now, in the Open Shooting Dog contest, what do the judges judge when the dogs tear off into the woods?"

"The dogs run a course. When they disappear from sight they run the back course. For 22 minutes. The dogs are judged on how good they show themselves, their style, how good they stay out in front, how good they range. And then the two dogs come into the bird field for eight minutes."

"That last dog pointed more quail"

the bird field than any other dog so far. Will he be the winner?" I asked.

"Not necessarily. The best dog could possibly do exceptionally good on the back course to make up for not many points in the bird field. It is a combination of both back course and bird field that makes the winner."

A pair of dogs, after running the back course appeared now in the bird field. We went over to the "sideline" to watch. By now, several wives were near the sideline under a canopied cooking area preparing over food. Young boys and girls were watching the dogs or riding around on their fathers' horses. A child was sleeping on the backseat of a car parked on the sideline.

One of the dogs in the bird field was a beauty to watch. He worked fast, covered a lot of ground, and would turn into a statue on point. He pointed four separate quail.

When quail were kicked up and flew out of the bird field, across the road or into a nearby heavy pine stand, they were replaced from a supply of quail kept in a cage.

This went on for two days. Dogs and horses and men going and coming. There were five categories, with cash prizes for one (the open shooting dog event, where professional handlers could compete), and trophies and ribbons for the other four. The last category to be won was the Bird Hunters Stake.

"Meat dogs compete in this one," Emmett said.

"Meat dogs?"

"A meat dog is fed meat, table scraps. It is not a kennel dog with a dog food diet. This is an event for the average man, a pleasure event. The dogs aren't well trained."

Emmett told me there are professional field trial dogs and professional handlers that tour the major circuit competing in trials every weekend. Professional field trial dogs do not go on tail hunts.

"How about you, Emmett, how many dogs do you keep and how often do you compete?"

"I have three dogs, use one for field trials only. I believe he might make a champion. I compete about five or six times a year, depending on my available time."

The smell of cooking meat finally got me. I went over to the cook area and ate a hamburger. As I enjoyed the beef and bread, I read through some of the dogs' names on a chart tacked on a tree: Andy Ridge, Jake, Dan's Rambling Rebel, Bit, Jack, Dee, Rocky Creek Billy.

Shouts of approval and encouragement from the sideline drew my attention. I walked over and joined the people enjoying a dog after a bird.

I got acquainted with some mighty dogs . . . and some fine people, too.

Two owners hold onto their dogs and wait for another go around. Some of the spectators are in the background.



And away they go! One pup leaps away as the whistle blows. The other pup, a first time competitor, is momentarily lost to the excitement. Emmett Johnson, President of the Appling County Field Trial Association, puts heels to his horse to follow. Two mounted men in background are judges. The man on horseback, right, owns the bewildered pup. And the two men on foot held the dogs until the whistle blew.




In the bird dog field where quail have been placed, a bird dog on trial snaps to point while the judge on horseback watches.



Challenge Noontootley

by Claude E. Hastings

North Georgia Fisheries Supervisor
State Game and Fish Commission



■ How would you like to fish a stream where there are large numbers of wild, well-colored trout in a remote, beautiful section of mountainous country away from the crowds?



Six miles of the most beautiful and uncrowded trout fishing in Georgia waits for the angler in Noontootley Creek, just north of Dahlonega. Mark Hastings can expect to fish a mile or more of it without seeing a single angler.

Well, it can be done. The name of this stream is Noontootley Creek and it is in the Upper Blue Ridge Wildlife Management Area.

Back in 1963, plans for a new type of trout stream were initiated. We felt that a stream needed to be set aside for those fishermen who like to fish for sport alone. Dr. Albert Hazzard, who started this kind of fishing in other states, was kind enough to visit us and help us begin this new program.

Noontootley Creek was chosen because of its size, because of its remoteness and because it was a good producer of trout. In 1964, Noontootley was officially designated a "Catch and Release" stream, and was opened to fishing four days a week at a charge of \$1.00 per day. When this was done, nearby Rock Creek was also opened to fishing four days a week so that fishermen who normally fished Noontootley Creek for stocked trout and wanted to keep their fish would still have a well-stocked stream to fish. These policies are still being followed.

Now, "Catch and Release" means just what it says. You can catch them, but you can't keep them. We do allow fish that are 16 inches or over to be kept because they are trophy fish, and because they feed to a great extent on small trout.

We have one other restriction on this stream. Only artificial lures can be used. The purpose of this restriction is to prevent the excessive killing of trout by

deep-hooking—not to ban the bait fisherman.

This type of management offers those fishermen who like to fish for sport alone a stream with a good population of wild, well-colored, stream-reared brook, rainbow, and brown trout in a remote atmosphere away from the crowds. It has not been our purpose to rear a total population of trout 16 inches or larger—this of course being impossible under known management methods. However, I personally know of at least five trout now in Noontootley that will run from 18 to 26 inches in length, and I have heard of others!

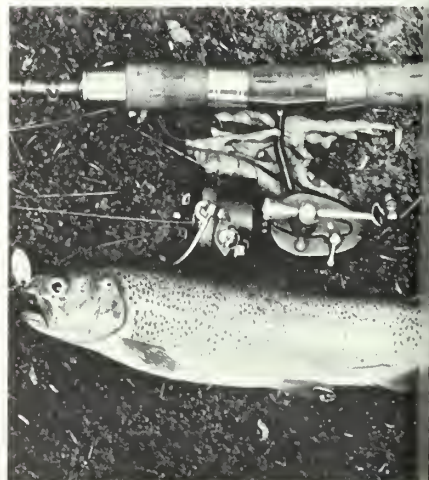
Our creel census and fish population studies have shown us that we have succeeded in establishing a good population of trout in this stream. The creel census also shows that the numbers of trout taken by good trout fishermen are high. Catches of 50 trout in one day by one fisherman have been recorded.

But remember this. When you are fishing for Noontootley trout, you are fishing for wild trout that become wilder every time they are hooked and released. Methods which would normally work on freshly-stocked hatchery trout will not work well on these fish. It takes skill, concentration, and real fishing know-how to catch these fish.

So you fishermen who believe that you are good anglers or you beginners who would like to become good fishermen, come visit Noontootley Creek and match your wits with really wild trout.



Got him! Noontootley produces some of the finest native trout fishing in North Georgia, for anglers who are a cut above the average fisherman. Why?



Most of the fish caught in Noontootley are in the 10 to 14 inch category, nice fish by mountain standards. The author personally knows of five fish now in Noontootley that are from 18 to 26 inches in length. Could you catch them?



Noontootley is unique . . . a catch and release or fish for fun stream. All the fish caught there must be released unharmed unless they happen to be a trophy over 16 inches long. Only artificial lures are allowed, so that fish can be released unharmed. This rule enables the native trout population to build up to a higher level than is possible in a normal trout stream.

the outdoor world



Happiness...

is catching a fish.

Fishing is one sport that breaks international boundaries. A good example is Joanne Sims of Tiajuana, Venezuela. On a recent visit to her uncle Mike Milligan in Newnan, Joanne went fishing in her uncle's pond with James Tommasson, editor of the Newnan *Times Herald*. Two happy faces tell the story. Isn't it about time you saw that look on your family's faces?



The \$100 proceeds from a tournament near Marietta at which archers shot at simulated animal targets in a wooded setting have been contributed to the Georgia Natural Resources Institute, a summer program of conservation education for school teachers which is in desperate need of more funds and teachers.

Winners in the animal target shoot, from left, Arnold Boyd of Mableton, overall high scorer in the bowhunter class with 414; Jeff Beyers of Marietta, a member of the Sequoiah Bowhunters, overall high youth freestyle, with 504; Mrs. Blanche Yearwood of Marietta, a member of the Black Arrow Archery Club, overall high women's freestyle with 440; Gene Beyers of Marietta, a member of the Sequoiah Bowhunters, overall high men's freestyle with 524; and R. C. Pate of Dallas, a member of Lockheed Archery Club, overall high men's bare bow with 470. Bill Cox, President of the sponsoring Cobb County Archery Club, is at right. Trophies for the Tournament were donated by Deercliffe Archery Supplies in Atlanta so that all of the entry fee could be given to the Institute scholarship fund.

Arrows for education



Sportsmen Speak...



Bluegill Spot?

I have certainly enjoyed your magazine and also enjoyed working with one of your photographers, Mr. Ted Borg. His work at the aquarium resulted in a fine cover picture in the March, 1968 issue.

In regard to your June, 1968 cover painting, I believe Mr. Rainey omitted the classifying color spot on the dorsal fin of the bluegill. (See illustration below.)



Herb Reichelt
Millen National Fish
Hatchery Aquarium

Mr. Reichelt knows his fish.

Bows, Swimming

I just can't tell you how much I enjoy each issue of Georgia Game and Fish Magazine. Marvin Tye's article on bow hunting was especially good. I have two sons, 14 and 18, who are avid bowmen.

Your article on swimming was especially interesting since Bill Searce is a graduate of our program in Statesboro. I can remember Billy as a little boy and later sending him to Red Cross Aquatic School.

Bill now is director of recreation at Joplin, Missouri.

Max Lockwood,
Director of Industrial
Affairs,
Georgia Southern Area
Planning and Development
Commission
Statesboro, Georgia

Striped Bass

My congratulations to you on the splendid article in the June issue of the Georgia Game and Fish, and also my congratulations to Billy Bryant, Zan Bunch, Glenn McBay, and Leon Kirkland for the fine work they are doing with the stripers.

What does the future hold for Lake Lanier regarding the development of the stripers in those waters?

Nick Long
Atlanta, Ga.

Fisheries biologists of the Commission say they may eventually stock some striped bass in Lanier when they become more readily available. However, they feel that stocking large numbers of this voracious carnivore in Lanier could be potentially harmful, since it does not have the high gizzard shad population of more southern lakes like Sinclair, Jack, and Blackshear and Seminole.

Cooper's Creek?

I am a reader of Georgia Game and Fish Magazine. I always think your write-ups are very good. I would like to see you about an article in the Sunday, June 10, 1968, Atlanta Journal-Constitution. I saw an article on page 36 about the state's plan to develop the Georgia Game and Fish Commission. I was wondering if the Georgia Game and Fish Commission is planning to stock Georgia's waters with trout. If you could, try to get on Inside Georgia's subject

a little more. If not, would you please write me back telling me about the article. Thank you.

Emory Oakes
Atlanta, Georgia 30318

Our game biologists do not feel that this is feasible because elk are not compatible with the highly populated agricultural situation in Georgia. For instance, instead of jumping the normal type of cattle fence, they simply walk right through it! Also, they are extremely bad tempered, and probably would end up being shot right away!

You might be interested to know that at one time, we did have elk and buffalo in Georgia before the white man arrived and wiped them out.

Valuable Wildlife

I have thoroughly enjoyed every issue of your Game & Fish magazine since I first sent my check for your first copy.

I was particularly interested in the article in your April issue by David Almand, entitled, "Wildlife: How Valuable?"

I have often wondered how much an average hunter will spend to carry out his favorite pastime of hunting, fishing, or boating. My favorite is deer hunting; and since I hunt both the bow and gun seasons, (for the past five years) I have often wondered how much an average hunter would spend. During this time I have driven about 90 miles round trip, two days a week, for about 18 days a year. I have eaten two meals out, bought two sets of licenses (1 for bow and 1 for gun), bought candy bars, belly washers, and such. If I camp out, I spend more on groceries, gas for lanterns, and stove.

The actual cost to the average hunter to bag a deer is unaccountable; one could only guess. I have carried on this great pastime for the past five years, but I have only been lucky enough to bring game home once.

What have I received for my time and money spent in those north Georgia mountains? Sometimes it was in cold and almost unbearable weather.

The very idea that I know that State laws and regulations have been enacted fairly for my benefit in designating the seasons throughout Georgia, in which I can carry out my endeavor for deer hunting has made it all worth it. This is but one of the many great pastimes and recreations aspects that encumbers the work of the State Game & Fish Commission. We should only stop to think what would happen if we did not have these laws and regulations to abide by. It would make you shudder to think that without the Commission, our wildlife and natural resources would diminish within a very short period of time.

The citizens of this State should pledge themselves throughout their lifetime to help support our Commission in their never ending struggle to preserve our wildlife and still harvest our fair share of game.

Carl Miller
Hartwell, Georgia

Cooper's Creek

First let me say that your magazine is delightful. We look forward to receiving it every month and almost race to see who gets to read it first.

However, I am writing to you about a matter which has been on our minds since last June. About four years ago, we "discovered" Cooper's Creek and thought it was one of the most wonderful recreation areas ever provided. Last June we made our first trip back to Cooper's Creek and were really outraged at what we saw. When we arrived, the entire area was jam-packed with "weekend" campers and Sunday picnickers. I have never seen more cans, paper and assorted litter in one place other than a designated trash dump! Recently one of your feature stories contained a picture of a beautiful "trout hole" which had

been badly littered by unthoughtful fishermen. I might say that we found the picture typical of every "hole" along the area Cooper's Creek which we fished.

I am not trying to place the full blame on the weekend campers, but must go on to say this. Any number of half-cleaned or just plain dead trout were found in the stream bed on Sunday evening and Monday. Almost everywhere we went we saw these fish. Apparently some fisherman felt they weren't worth the trouble to clean. Supposedly some of the fish could have been hooked in such a manner to have killed them, and then escaped before being landed. However, it is very doubtful that happened to all the dead fish we saw. It seems to me that this was a most wanton waste of our taxes which in our case, are paid monthly. Our first vacation in four years was almost ruined for us by the deplorable conditions found at Cooper's Creek. I realize it is heavily used area, but guess that I was naive in my supposition that sportsmen believed in conservation and preservation of the many lovely things which God has provided for us. I just cannot tell you how really heartsick we were at all the mess we saw. While there we made a careful effort to pick up any cans or paper we found and cart them to the nearest trash receptacle. We certainly left one area much cleaner than we found it, but shuddered to think what it looked like the next week. I must add that we saw no more dead fish later in the week, and therefore am placing the blame on the "weekenders".

We were also greatly disappointed at the amount of silting in the stream, despite the obvious methods which had been taken to prevent it.

I realize I am doing little but complaining, but must add still more to my tale of woe. The only person we saw other than campers during our stay was a local fellow selling firewood. There was no ranger anywhere within the area nor any of several areas we visited. Although we had purchased a Gold Eagle pass as instructed, we could just as easily have camped without it, and I suspect many were doing so. I do not regret having spent the money as I'm sure it was put to good use, but am saying that we feel more supervision should have been provided. I feel very strongly that rangers should patrol the area carefully, incognito, if necessary; and enforce very stringent fines on any infringement of the rules. Most especially the littering that was so offensive to us. I cannot bear to think what our camping areas will look like another four or five years if these practices continue at the rate we saw.

Now, looking on the positive side, we found it most interesting that many of the fish we caught were browns, and had been in the stream so long as to show little evidence of having had a clipped fin. The very first fish I hooked was such a one and I would estimate about 12-14 inches long. I could find no evidence of his having a clipped fin and I thought it was a "native", but am given to understand that brown trout are not native to the Georgia streams. None of our catch were quite as large as this one, but all nice in size. Some campers from Missouri who said they were old hands at trout fishing had nice strings of quite large browns. We did have a fish harder and longer than on our previous trip, but still found the fishing good. One beautifully marked "native" fish with bright red fins was caught, and one old sucker who the stream was muddy after a shower. I understand he put up quite a struggle!

I do hope I haven't sounded like too much of a "spoil-sport," but I wanted to express our great disappointment before planning another trip this summer. I would like very much to visit the Warwoman area this summer, but see no camping facilities marked on the map I have. Can you advise me of the nearest facilities and of what they include?

Mrs. Eugene F. Miller
Wadley, Georgia

Sportsman's Calendar

SEASONS OPENING THIS MONTH

Squirrel

Early Season—Aug. 15, 1968 through Sept. 7, 1968 in the following counties only: Dawson, Fannin, Gilmer, Habersham, Lumpkin, Murray, Rabun, Towns, Union, and White.

Bag Limit—10 Daily

SEASONS NOW OPEN

Mountain Trout

Open Stream Season April 1, 1968 through October 15, 1968.

Creel Limit—Eight trout of all species per person per day. Possession limit eight trout.

Fishing Hours—30 minutes before sunrise to 30 minutes after sunset on all open trout streams. Trout fishing is allowed at night on all large reservoirs.

Management Area Stream Season—May 1, 1968 through Sept. 2, 1968 on designated days only as shown in the chart. For a complete set of trout fishing regulations and directions to managed streams and the most popular open streams, write to the State Game and Fish Commission, 401 State Capitol, Atlanta, Ga. 30334.

MANAGEMENT STREAM SCHEDULE

Management Area	Stream	May	June	July	August	September
BLUE RIDGE	Jones (Artificial Lures)	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Montgomery	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Nimblewill	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Noontootley (Artificial Lures) (Catch and Release)	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
	Rock Creek	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	Wed., Thurs. Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
CHATTAHOOCHEE	Chattahoochee	Sat., Sun.	Sat., Sun., Wed.	Sat., Sun.	Sat., Sun.	(Sun., Mon. Sept. 1 & 2)
CHESTATEE	Dukes	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	
	Boggs	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Dicks	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
LAKE BURTON	Waters	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Dicks	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	Wed., Thurs.	
	Moccasin (Not stocked)	Sat., Sun.	Sat., Sun.	Sat., Sun.	Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
	Wildcat	Sat., Sun.	Sat., Sun.	Sat., Sun.	Sat., Sun.	(Sun., Sept. 1) (Mon., Sept. 2)
WARWOMAN	Finny	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Saraha	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)
	Tuckaluge	Wed., Thurs.	Sat., Sun.	Wed., Thurs.	Sat., Sun. (Thurs., Aug. 1)	
	Walnut Fork and Hoods Creek	Sat., Sun.	Wed., Thurs.	Sat., Sun.	Wed., Thurs. (Sat., Aug. 31)	(Sun., Sept. 1) (Mon., Sept. 2)

Holding a Field Trial?

If your club or organization is holding a meeting, convention, field trial, etc. that the public is invited to, send *Game and Fish* the dates, location, and other pertinent information for use on the Sportsman's Calendar page. All notices must be received at least two months prior to the date of publication from the first of the month to be used in the magazine. The editor reserves the right to determine if a notice is used, depending on space requirements and the subject matter.

EVENTS THIS MONTH

Georgia Mountain Fair, Aug. 9-17, 1968, Hiawassee, Ga. See the wildlife exhibit of the Game and Fish Commission.

AUGUST 1968

Day	A.M.	HIGH WATER		LOW WATER	A.M.	P.M.
		HT.	P.M.			
1 Thurs.	12 19	6.3	1 07	6.8	6 43	7 31
2 Fri.	1 19	6.0	2 01	6.8	7 43	8 43
3 Sat.	2 19	5.8	3 19	6.9	8 49	9 49
4 Sun.	3 31	5.7	4 31	7.1	9 55	10 55
5 Mon.	4 49	5.8	5 43	7.4	10 55	11 55
6 Tues.	5 55	6.1	6 37	7.4	12 01	
7 Wed.	6 55	6.4	7 31	7.9	12 49	12 55
8 Thurs.	7 49	6.7	8 19	7.9	1 43	1 49
9 Fri.	8 31	6.9	9 01	7.7	2 31	2 43
10 Sat.	9 19	7.0	9 43	7.4	3 13	3 25
11 Sun.	10 01	6.9	10 25	7.0	3 55	4 13
12 Mon.	10 49	6.8	11 07	6.5	4 37	4 55
13 Tues.	11 31	6.6	11 43	6.1	5 19	5 37
14 Wed.			12 13	6.4	6 01	6 25
15 Thurs.	12 25	5.7	1 01	6.3	6 43	7 19
16 Fri.	1 07	5.4	1 49	6.2	7 31	8 19
17 Sat.	2 01	5.1	2 43	6.2	8 25	9 19
18 Sun.	2 55	4.9	3 43	6.2	9 25	10 13
19 Mon.	4 07	5.0	4 43	6.4	10 19	11 07
20 Tues.	5 07	5.2	5 37	6.7	11 07	11 55
21 Wed.	6 01	5.5	6 19	7.1	11 55	
22 Thurs.	6 43	5.9	7 01	7.3	12 43	12 43
23 Fri.	7 25	6.3	7 43	7.5	1 19	1 31
24 Sat.	8 01	6.7	8 19	7.6	2 01	2 43
25 Sun.	8 43	7.0	8 55	7.6	2 37	2 55
26 Mon.	9 20	7.3	9 37	7.4	3 19	3 43
27 Tues.	10 07	7.4	10 19	7.1	3 55	4 25
28 Wed.	10 55	7.4	11 07	6.8	4 37	5 13
29 Thurs.	11 43	7.3			5 25	6 07
30 Fri.	12 01	6.4	12 43	7.1	6 19	7 13
31 Sat.	1 01	6.0	1 55	7.0	7 19	8 25

TIDE TABLE

AUG.—SEPT. 1968

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
Osabaw Sound	0	05
Verion 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
AUGUST	1	3	15	23
SEPTEMBER	6	14	22	29

SEPTEMBER 1968

Day	A.M.	HIGH WATER		LOW WATER	A.M.	P.M.
		HT.	P.M.			
1 Sun.	2 06	6.1	3 06	7.3	8 36	9 42
2 Mon.	3 24	6.1	4 24	7.5	9 48	10 48
3 Tues.	4 42	6.3	5 36	7.8	10 54	11 48
4 Wed.	5 48	6.8	6 30	8.1	11 54	
5 Thurs.	6 48	7.2	7 18	8.2	12 36	12 48
6 Fri.	7 30	7.6	8 00	8.2	1 24	1 42
7 Sat.	8 12	7.8	8 36	8.0	2 12	2 24
8 Sun.	8 54	7.9	9 18	7.7	2 54	3 12
9 Mon.	9 30	7.8	9 48	7.4	3 30	3 48
10 Tues.	10 06	7.6	10 24	6.9	4 06	4 30
11 Wed.	10 48	7.4	11 00	6.6	4 42	5 06
12 Thurs.	11 24	7.2	11 36	6.2	5 18	5 48
13 Fri.			12 12	7.0	6 00	6 36
14 Sat.	12 24	5.9	1 00	6.8	6 48	7 36
15 Sun.	1 12	5.6	1 54	6.7	7 48	8 42
16 Mon.	2 12	5.5	2 54	6.7	8 48	9 42
17 Tues.	3 24	5.6	4 00	6.9	9 48	10 36
18 Wed.	4 30	5.9	4 54	7.2	10 42	11 24
19 Thurs.	5 24	6.4	5 48	7.6	11 36	
20 Fri.	6 12	7.0	6 30	7.9	12 06	12 24
21 Sat.	6 54	7.6	7 12	8.1	12 48	1 12
22 Sun.	7 36	8.0	7 48	8.2	1 30	1 54
23 Mon.	8 12	8.4	8 30	8.2	2 12	2 42
24 Tues.	8 54	8.6	9 12	8.0	2 54	3 24
25 Wed.	9 42	8.5	10 00	7.7	3 36	4 12
26 Thurs.	10 36	8.4	10 48	7.2	4 18	5 06
27 Fri.	11 30	8.0	11 42	6.8	5 12	6 00
28 Sat.			12 36	7.7	6 06	7 06
29 Sun.	12 48	6.4	1 42	7.4	7 12	8 18
30 Mon.	2 00	6.2	3 00	7.3	8 30	9 30

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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Volume III

Number 9



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation.

Contents

The Fox... or The Hunter?	Jim Morrison	1
Writers Love Georgia!	Dean Wohlgemuth	6
Bear Facts... and Fables	Marvin Tye	9
An Island Called Cumberland	Jim Morrison	11
Sportsmen Speak		15
Sportsman's Calendar		16
Tide Table		17

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COASTAL PHOSPHATE MINING UNWISE

Georgia conservationists are facing their greatest threat to the State's natural resources in many years with the advancement of a proposal to mine phosphate deposits located under the ocean floor up to three miles out from the Georgia coast.

The Kerr-McGee Corporation of Oklahoma has proposed to lease 25,000 acres of estuaries and offshore sea bottoms in Chatham County from the State Mineral Leasing Commission for a ridiculously low bid figure of \$750,000 initially and approximately \$500,000 for each year of dredging.

Under the sketchy details of the company's plan revealed to the public so far, Kerr-McGee proposes to mine the phosphate deposits under the ocean floor by dredging or pumping up the overburden of millions of cubic yards of muck, sand, dirt and rock lying over the phosphates from 70 to 300 feet below the ocean floor itself.

Solid fill material removed from over the deposits would then be used to fill in more than 14,000 acres of so-called "useless" marshland that the company has already leased or purchased on Little Tybee and Cabbage Island, producing real estate that might very well be sold by the company for 140 to 150 million dollars or more at current prices for a fabulous profit over their original investment.

During the processing of the phosphate, a messy colloidal slime the consistency of cold cream is produced which never dissolves, and which will remain the same consistency 2,000 years from now under the current technology. This material the company proposes to pump out into the ocean and "dump", for lack of a known permanent solution to the disposal problem.

The entire proposal is frightening in concept when the possible consequences are considered, especially when the potential long-range damages to so many people are weighed against the advantages to so few individuals for such a short period of time.

Three principal threats are presented by the proposal: 1. Possible destruction of the freshwater supply of Savannah. 2. Pollution of ocean water and destruction of sport fish and seafood production areas. 3. Filling of marshes, resulting in total destruction forever of the seafood industry and sport fishing in the area that is dependent on the marsh.

More than 160,000 people in Savannah and surrounding communities are dependent on wells for freshwater. This water is drawn out of a layer of limestone known as an aquifer that extends out past the seashore into the ocean in the area just below the phosphate deposits. How close they lie to each other is a matter of controversy, but should the dredging break into the freshwater limestone layer, saltwater probably would flow into the area wells, forcing Savannah to construct a 10 to 15 million dollar surface water treatment plant to take its water out of the Savannah River.

(Continued on page 15)

ON THE COVER: The wily gray fox, the most common Georgia fox. For a look at fox facts, see the opposite page. Color photo by Ted Borg.

ON THE BACK COVER: Sand dunes on Georgia's beautiful Cumberland Island, proposed as a National Seashore. See "An Island Called Cumberland" on page 11 by Jim Morrison, who also made the color photograph on the back cover.

PHOTO CREDITS: Bill Baab: 13, 14 t. & b.; Ted Borg: i.f.c. 6, 7, 8, 9; Jim Morrison: 12, 14 c.r. & l.; Leonard Lee Rue, III: 1, 3, 5; Marvin Tye: 10.



THE FOX OR THE HUNTER

By Jim Morrison

■ There's never a dull moment when the subject is fox hunting.

It's a hard decision to make: which is the most controversial, the fox . . . or the fox hunter?

If you want to get a good rousing discussion started around any gathering of Georgia sportsmen, just bring up either subject, and then step back! The fireworks are about to begin, pro and con.

But before we put any heat into the arguments, let's shed some light on the subject first.

To begin with, there are two types of foxes found in Georgia, each clearly distinguishable from each other: the common gray fox, and his more elusive cousin, the red fox. In spite of rumors to the contrary, red foxes and gray foxes don't inbreed.

Gray foxes have some red on them around their ears, the sides of their forelegs, and their ankles. The easiest way to tell the difference is by the black tip of their tail and rusty colored legs. In comparison, the red fox has a white tipped tail and black legs. (See illustration)

There is a lot of argument about whether or not the red fox is a native of Georgia, and North America. Many fox hunters claim that he was stocked in America by early English settlers who had hunted him in England. In fact, a good bit of fox stocking has been done by fox hunters and their clubs during the past two hundred years, but most naturalists believe that the red fox was here all along, before the arrival of the white man. Fossil records substantiate this view.

They point out that the gray fox is more at home in forest areas, which were most common before the settlers began clearing land for farming, making it more open and better habitat for the less numerous native red foxes, who rapidly expanded in the more open terrain. Thus, many people attributed their sudden appearance with the advance of civilization to stocking by hunters. Today, biologists estimate the relative percentage of reds to grays in Georgia at fifty-fifty, for the sake of argument. Grays may be more plentiful.

The red is much more popular with fox hunters than the gray because of his tendency to give the dogs a long, exciting chase for miles across the countryside before finally going into a den in the ground. The gray is less likely to run for great distances, frequently climbing a tree, cat-like, within a half hour or less. Since fewer reds are caught by the dogs compared to the gray, he is generally considered either a faster runner, more intelligent, or both. The reds generally run farther ahead of the dogs than the gray, leaving less scent to follow. Curiously, the red never climbs trees.

Basically, the fox is a little wild dog, and belongs to the same biological family as domestic dogs, wild coyotes, and wolves. He's really a little fellow—averaging eight to 12 pounds or less in size. The male is usually the larger of the pair, and has a stronger scent than the female, apparently a defense for the young kits.

The fox is a predator. He'll eat just about anything he can get his mouth around: wild game, snakes, frogs, bugs, poultry, young livestock, fruit, vegetables, you name it. But the bulk of his diet is composed of mice and rabbits. Since he is also not above eating carrion when he can get it, he frequently gets blamed for killing and eating ani-

mals that died of starvation, disease, wounding by hunters, or attacks by dogs.

Actually, fox menus vary considerably with the seasons. During the winter, they must depend on meat dinners out of necessity, since little else is available, and wild animal surpluses are most common at that time. Mice and rabbits are the number one items, along with a good deal of carrion. In farming country, this may be a dead cow, pig, chicken, etc. In deer country, animals crippled by hunters that die later are cleaned up by foxes, along with fellow predatory scavengers like raccoons, crows, etc.

In early spring, foxes start out eating basically the same items they ate in winter. But as spring progresses and insects appear, foxes begin adding them to their menus. By summer, they are eating more and more fruit and insects and less meat, except for mice. By fall, fruits and mice are still important, but crippled game is added to their diet.

It's quite true that foxes will eat quail adults and eggs in the nest alike, along with other game birds and smaller animals. In addition, disease, exposure, and even hunting. Even in the case of the rabbit, the fox takes a much smaller percentage of the annual surplus than is removed by natural causes. In years when rabbits are more plentiful, foxes will also be more abundant. But when the rabbit (and rat) population is low, fox numbers follow their prey downward.

For these reasons, biologists feel that in most instances, attempts to reduce fox populations are a waste of time and money. Intensive studies of the fox have been made in northern states which clearly showed that reduction of the fox population on study areas had little effect in increasing game species, especially when the cost of control programs are considered in comparison to the good accomplished. This is especially true of the much-abused bounty system, which failed to reduce fox populations or increase game, in spite of the expenditure of millions of dollars over several decades. Today, most states with a modern game management program, including Georgia, do not offer bounties.

But what about Reynard's fabled raids on the chicken house? Foxes are famous for proving that chickens are slower and more stupid than wild prey, and they taste just as good. You can't blame the farmer for resenting this type of attack on his income, and more than one thief in the night has ended up with his pelt plastered on the barn wall by a load of number sixes!

But even this situation has changed today. In Georgia most poultry is kept closed up indoors for maximum production, greatly decreasing the fox's chance

to sneak into the barnyard for a quick meal. Similarly, pigs and livestock frequently are under closer control, so the fox is no longer the pest he once was considered.

In fact, the men who hunt him sometimes rank as a much greater problem for the farmer, especially when a pack of dogs runs through a herd of dairy or beef cattle or a ripening grain field in full pursuit of one of the neighborhood foxes. If the hunters didn't bother to ask for permission to hunt in advance, tempers sometimes flare.

Mating in late winter, foxes pair up to take care of the young kits, which are born in March, April, or May. The average litter is about five pups, but may range anywhere from one to as many as 11. Cases of more pups being found usually are the result of a pair of adults taking over a litter whose parents have been lost.

Nearly always, foxes are born in dens, which may be a hole in the ground, a cave, an opening under a pile of rocks or a big log, under an old house, or almost anywhere that a den opening can be found. The den may be located in fence rows, fields, or woods in brush or grass, on a hilltop or a hillside, or on level ground. Usually, it is on a raised elevation of ground, sandy, gravelly soil.

Foxes can dig their own dens, but usually prefer something ready made. Frequently, they take over an old woodchuck hole and enlarge it for their own needs. Usually there are two openings to the den, but three are not uncommon. While foxes may clean out several dens, only one is used for the kits. The others are remembered for emergency refuge from hounds or men.

After birth, both parents hunt for the young through late spring and early summer, when they begin learning to catch their own food with mother. In late summer and early fall, young foxes leave home and disperse into the surrounding areas at about the time many animals have produced their maximum number of offspring... the fall surplus, which hunters, as well as predators, harvest without harming the breeding stock.

Like most predators, foxes travel more widely than herbivorous animals like Georgia's whitetail deer, who normally live and die within a half-mile radius. After leaving the den, the young foxes may travel 10, 20, 30, or even 100 miles before settling down in a "home range," which may be many square miles wide. But should food needs dictate, the fox can and will migrate readily in search of quarry.

Usually, he moves about the most

ght, on the average of about five miles. During the daytime between meals, he may put in a mile and a half's travelling, hunting, or playing. Typically enough, compared to humans, the male foxes do more moving around than females, and tend to go much further before settling down to a domestic role. Travel is most extensive in the winter when there are no young.

In Georgia, except for man and his dogs, the fox has few natural enemies. Some are killed by bobcats and coyotes, but these losses are insignificant. Probably the greatest killers of foxes are disease, starvation, and old age. Foxes are one of the most susceptible of all wild species to rabies. A serious fox rabies epidemic occurred in 1954. Few cases have been recorded in recent years, but a serious outbreak is now in progress in Tennessee. Distemper, brain encephalitis, and mange are threats when the fox population gets too high. These diseases are one of the best reasons for hunters to adhere to game laws and health regulations against illegal fox stocking. If diseased animals are turned loose on healthy native foxes, an epidemic could seriously decrease the number of foxes present, and in the case of rabies, threaten man himself.

Few foxes are trapped because the market brings a ridiculously low price on the market, and fox furs aren't in style. Now that we've looked at the fox, what about the other side of the picture — the hunter?

Basically, there are three types of fox hunters in Georgia, but only one of them is numerous enough to be important: the night hound hunter.

The night hunter holds only one animal in more esteem than the fox: his hounds. Actually the average hunter is primarily a dog lover, breeder, trainer, competitor, and lastly, a hunter. The time, effort, and money that he spends on his dogs is a labor of love. Frequently, it is his only source of recreation.

Fox hunters are the sociable sort. They're organization men, too. Many of them belong to county or regional fox hunting clubs, primarily for the purpose of getting together to compare dogs, hold field trials and bench shows, and to swap, buy, or breed dogs with each other. Seldom do these large groups meet together.

The typical fox hunter may be a farmer or a millionaire, a truck driver or a successful businessman. He'll go to any length to buy, barter, breed, borrow, or otherwise obtain the finest hounds he can. He thinks nothing of trips to the veterinarian, dog feed bills, complaining wives, driving hundreds of miles for a field trial, or staying out all night long listening to the sweet music of "Old Blue" in full voice.

And traditionally, the fox hunter has been regarded as a friend of the farmer and the small game hunter, a man who is helping to remove a pesky problem while enjoying some wholesome sport with his dogs. Thankfully, this traditional role of the fox hunter isn't extinct, although a few bad eggs have created an odor that detractors of fox hunting have seized upon for their own purposes. For instance, a wit once described fox hunters as "the unspeakable in pursuit of the unedible."

Within recent years, the nature of fox hunting in Georgia has begun to change with the times. Since before the War Between The States, Georgia fox hunters have been prominent on the sporting scene. In the early days, most of the hunting was done from horseback, some of it in the old English Style. In fact, there are three groups of fox hunters in Georgia who still ride to the



hunt dressed in the traditional riding "habit" behind their hounds: one group near Atlanta, another at Midland near Columbus, and a third at Thomson, near Augusta. This type of hunting is done in the day.

But more commonly, hunting is done at night, when the weather is cooler and fox scent is stronger on the dew. And foxes move more at night. Once, hunters followed their hounds through the woods with a lantern, getting in plenty of good exercise and fresh night air, while enjoying the excitement of being near the dogs when the chase ended. Some hunters still do this, using modern flashlights. Occasionally, they may even kill the fox for a trophy, or let the dogs satisfy their desires. Frequently, the fox is allowed to live for another chase.

But more commonly, two to four more hunters get together, pooling their dogs for a hunt. The group casts their hounds on top of a hill, builds a campfire, and enjoys the pleasure of each other's company, re-telling stories of famous old hounds and their masters, perhaps "taking a nip," and listening for the dogs to top out a nearby ridge in

pursuit of their prey, before they go out of earshot into the valley beyond.

Sometimes, the group may pile into their trucks and race to the next hill, or a favorite road crossing, hoping to catch the sound of the hounds again, or perhaps even see the fox bound past their headlights. If the hunters should get tired, sleepy, or cold and wet, they may leave an old coat or other item of clothing with their scent on the ground where their dogs were let out. Theoretically, the dog is supposed to associate the coat and its odor with his master, remaining with it until he is picked up the next day or two after the hunt.

Unfortunately, it doesn't always work out that way. The hounds may pursue a particularly long-winded fox for miles before either catching, treeing, denning, or losing him. If their owner is not with them, they may not be able to find their way back to the release spot, or may strike up another scent.

Tired, weary, and footsore, they may get into trouble at a farmer's house on the way to find their master, perhaps chasing a calf, pigs, or a chicken, or rummaging around in the trash pile. In any event, it is usually the owner's fault, not the dogs. He should have been present at the end of the chase, if at all possible.

But perhaps the most serious complaint of all comes from the fact that it is difficult for the fox hunters to know what their dogs are actually chasing, for instance, a fox, or a deer? Even worse, some hunters don't care. One of them in North Georgia once told a State game biologist, "I don't give one — what my dogs are chasing, just as long as I can hear them barking. Lots of times if they strike up a deer, I can hear him coming by the sound of his breathing, long before I can hear his feet hitting the ground." And a small minority of deliberate illegal deer doggers like to disguise their activities as "fox hunting", helping to give a bad name to thousands of law-abiding sportsmen.

The fact of the matter is that fox hunting is much more difficult in areas where deer are plentiful, since the dogs frequently jump or wind a fresh deer scent and leave the trail of the fox. Because of this, some scattered fox hunting groups have made concentrated efforts to wipe out deer that have been introduced or spread naturally into their hunting areas.

The following night after deer were stocked in a Gwinnett County area on the Alcovy River, a group of fox hunters released their dogs there in an effort to wipe out the newly-stocked animals while they were still in a confused state. Fortunately, their effort failed, but it did help to delay opening the county for legal deer hunting until this year. A

similar effort helped cause the abandonment of the Gumlog Game Management Area in Towns County on the North Carolina line.

Some outlaws even have tried to poison deer by leaving old car batteries in the woods in hope that the deer would eat the lethal lead content, but biologists say deer ignore the batteries.

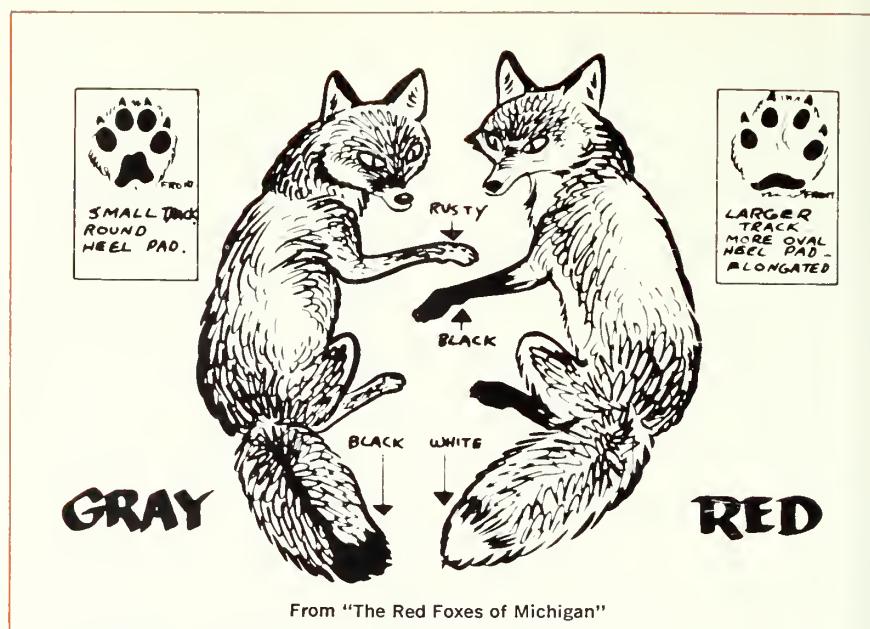
A few instances of this type, perhaps blown out of proportion in the retelling, have caused resentments between fox hunters, deer hunters, and game managers, especially since fox hunters are allowed to hunt their unprotected prey all year long, including the spring and summer months when deer are pregnant or dropping young fawns that are especially susceptible to dogs. This fact has created the opinion in many deer hunters that the fox hunting season should be stopped during the deer fawning period, and resulted in Senator Paul Brown of Athens introducing a bill in the State Senate at the last session to close the fox season from April 20 to August 1, and to specifically require fox hunters to have permission from landowners to hunt (already law).

Alarmed by this threat to their sport, aroused fox hunters bombarded Brown and his fellow legislators with angry opposition in the form of letters, petitions, phone calls, and delegations of club officers. At Brown's request, the bill was killed in committee. The State Game and Fish Commission did not initiate the bill, and did not take a stand on it one way or another, primarily because the issue was too controversial, and little factual information is available as to how damaging the use of fox dogs is to deer during the reproductive period. Coon hunting in North Georgia is already not allowed during the spring and summer, primarily at the request of coon hunters.

In any event, the closed fox season bill did serve to stimulate a lot of valuable discussion by both fox and deer hunters, and responsible leaders in both groups have moved to head off any possible conflicts.

For instance, the officers of many fox hunting groups have urged their members and fellow fox hunters to make every effort to prevent their dogs from running deer, and to reject any suggestions of trying to annihilate deer, a futile idea at best in the face of greatly expanded deer herds and habitat. These men point out that any such efforts are not only illegal and would provoke action from the State Game and Fish Commission, but they also might cause deer hunters to retaliate on fox hounds seen running in the woods by shooting them or putting out poison.

Seriously, leaders of deer hunting group urged restraint and respect



From "The Red Foxes of Michigan"

for the valuable hunting dogs of fox hunters. And should such animals stray into a deer-rich game management area of the Game and Fish Commission and be captured or trapped, they are returned to their owners, if the dog is wearing a collar with the owner's name and address on it. Obviously good dogs that might have slipped their collar are frequently kept by wildlife rangers and refuge managers at their own expense until claimed by their owners, who have sometimes failed to even offer to pay for the food the dog ate while the ranger kept him. Should a dog be run over while crossing a heavily traveled roadway or fall victim to some disaster, rangers frequently are unjustly accused.

But in any event, while there are unresolved problems on both sides of the question, one thing is sure. Sportsmen in both the fox hunting fraternity and the deer hunters group would both suffer the most in any widespread outbreak of hostility and reprisals. It is of the most benefit for both groups to calmly work toward mutual cooperation.

Almost insignificant in comparison to the fox hunter-deer question is the furor that has been kicked up among the night hunting hound hunters by the arrival on the scene of a third kind of fox hunter: the predator caller.

Usually a dogless individual with a varmit rifle or shotgun, flashlight, and an electronic or mouth-operated caller that imitates a rabbit in distress, this fellow takes a few of the dumber foxes once in a while, and a whale of a lot more abuse from hound hunters, who fear that extermination of their favored species may result.

The argument of the predator callers is where philosophy and practice split for the fox hunter who has been using the "farmer's friend" argument that he is ridding the community of a pest. So

is the predator caller, but his relative easy success quickly brings the scorn of fox hunters, many of whom actually wouldn't think of killing a fox, at least not without dogs.

Game biologists feel that the number of foxes taken by predator callers is worth worrying about one way or another. Only a handful of individuals are doing it, and they are taking only a small number of the more credulous foxes that probably would otherwise die of disease or old age anyway, without them being chased by a pack of dogs. They also point out that foxes will come to any type call, even a crow or duck call.

But regardless of that, worried hunters reacted by calling for the abolition of nefarious calls to kill foxes. At their request, Representative Walter Snow of Chickamauga and William Crowe of LaFayette introduced a bill to outlaw the statewide use of callers for fox hunting. At the request of the State Game and Fish Commission, that bill was killed in committee, but a similar measure applying only to Walker County was passed as a local bill and signed.

With the rapid increase of forest areas that are good deer habitat, the difficulty of hunting foxes there will increase, and breaking dogs of running deer is no easy task, if not an impossible one. The scent of a deer is almost irresistible to a hound hot on the trail.

"It's easy enough to understand," says one hunter. "It'd be the same way with me if you undressed Brigitte Bardot and ran her around the block. I guess I'd just have to chase her, even if my dog was standing there with a shotgun to my head. And if I ever caught her, it'd be Katie bar the door from then on. I might get to like it!"

One hunter who tried to break his dogs of chasing deer by whipping them

every time he caught them on a deer's trail found his technique worked, but not the way he intended. "Instead of trapping chasing deer, they just learned not to bark," he said.

One interesting technique used by some hunters in training a new dog that has produced some results utilizes a bottle of stinging fluid that is tied to the top of the dog's collar, along with a plug attached to a dangling string and a fish hook. The dog is then taken out and lured on a known deer scent. As he charges off into the woods hot on the deer scent, the fish hook catches on a bush, jerking the plug out and giving the dog an unpleasant experience that hopefully will be associated with the smell of deer in the future.

Another technique is to spray a dog with deer scent at the same time that something unpleasant happens to him, like an electrical shock. A deer pelt or scent gland serves the same purpose. One hunter even raised a pet deer with his dogs, who soon became completely accustomed to the animal. Whether these experiments can be regarded as successful is still an open question.

But for a number of reasons, fox hunting is declining in popularity in Georgia, at a time when the population of the state is rapidly increasing and there are more foxes than ever before. A 1966-67 survey by the State Game and Fish Commission showed that there were only 11,000 fox hunters in the state that year, compared to 119,000 deer hunters. Only 18 per cent of the fox hunters, or about 2,000 owned fox dogs themselves, which is not too surprising, considering the social nature of fox hunting and the increasing difficulty of keeping a large pack of dogs.

Primarily a rural sport, fox hunting flourished in the days when agriculture was king in Georgia. In the open cotton and rowcrop fields, the gamey red foxes flourished, producing magnificent chases over the open countryside that was relatively free of fences. Farmers and quail hunters applauded their efforts, which served a much more useful end than exists today.

But as Georgia has become an industrialized, urban state, the picture of fox hunting has changed. Many rural fox hunters have since moved to the city, where keeping a large number of dogs is expensive, difficult, and time-consuming. Frequently, neighbors complain, families object, and feed bills for the big dogs have skyrocketed. Regular exercise and hunting for the dogs is a greater problem, since the hunting areas where the hunter is welcomed in his native community may be many miles away. As a result, many ex-fox hunters have sold, bartered, or loaned their dogs away. Few fox dogs, usually Julys or walkers, are seen in the average kennel.



A male red fox in summer coat scans the countryside from the mouth of his den.

The remaining fox hunters for the most part are the elderly men left in the rural areas, with few young recruits to fill the gaps in their widening ranks.

Then too, fox hunting just isn't as much fun as it was in the old days. With the abandonment of thousands of acres of farmland after World War II, cotton rats, mice, and rabbits flourished in thousands of old fields, and with them, the fox flourished as well. Actually, fox hunting is more exciting in areas with few foxes. Where there are many, the dogs split into different groups chasing more than one fox, confusing each other and aggravating the listening hunters. A whole pack chasing one fox a long distance sounds much better, and makes for a more satisfying hunt. Now, some fox hunters have traded their hounds for less expensive beagles and taken up rabbit hunting.

On top of that, with the increase in woodlands, the gray fox is making a comeback in numerical superiority sure to culminate in his assumption of most of the land once occupied by the open-country loving red. Since the gray fox doesn't run very far before being treed, he's not nearly so exciting to hunt.

And with the tremendous expansion in the number of deer in the new forested areas, hunts will be even less enjoyable and more frustrating than before. Since the hunter is spending money, time, and effort on his dogs to have fun, it is only natural for him to get discouraged about his sport when the fun goes out of it.

In his frustration, the fox hunter seeks a solution for his problem. Sometimes he lashes out at the Game and Fish Commission for spending so much time and effort at making his problems with deer even worse, a process that has not yet reached its peak. Why, he

asks, can't the Commission set aside some areas where deer will never be stocked or encouraged?

Even if such areas could be legally kept free of deer expanding naturally into suitable habitat, to do so would be to rob an even greater number of sportsmen of the opportunity to hunt the species of their choice, an animal for which they do not have to own an expensive pack of dogs to hunt for. With an investment of \$20 or \$30 in a military surplus rifle and a Saturday, with a little luck and skill, they can bag a trophy rack for their wall, and meat for their freezer at the same time.


A recent economic survey by the Game and Fish Commission showed that every deer bagged by sportsmen put more than \$400 into the pockets of their fellow Georgians, meaning that in 1966-67 alone, deer hunting was worth more than ten million dollars to the State. Meanwhile, the fox is still considered by most people to be a worthless, dangerous predator who deserves no protection or special advantages.

Since most areas that are leased by paper companies to the Commission are forest areas, they provide much better deer hunting than fox hunting, for a much larger number of people. In fact, four Commission leased areas are open for fox hunting: Allatoona, Whitesburg, part of Oaky Woods, Grand Bay, and Brunswick Pulp and Paper, but few hunters use these areas because of the large number of deer and the prevalence of the woods loving gray in them.

Strangely, perhaps there is one disguised ray of hope for fox hunters. With the rapid trend toward forests or grasslands for cattle in Georgia, the habitat of rabbits and mice, the fox mainstay, will eventually decrease so sharply that a noticeable decrease in the fox population inevitably will occur. With less foxes, fox hunting will be more exciting!

In any event, fox hunters and deer hunters agree with game biologists that fox hunting can be a tremendous amount of fun, if it is done right. For the man who is willing to spend the time, money, and effort, it is a rewarding sport, when landowners, cattlemen, farmers, and other types of hunters aren't harmed by it. If a man isn't willing to take the time and trouble necessary to hunt foxes, then the best thing for him to do is to quit, rather than going over the countryside, spreading destruction and resentment in his path.

Actually, the future of fox hunting is clouded with very real problems. As one hunter put it, "I can't help but feel sorry for the old fox hunter. He's one of the few rugged individualists left. I think we should always have a place for him."

And that's the way it should be for the fox, and the men and dogs who hunt him. 

The Outdoors Writers Association of America finds Georgia hospitality and outdoor resources irresistible.

Writers Love Georgia!

By Dean Wohlgemuth
OWAA 1968 Convention Chairman

■ The ceremony is over — Georgia has been to the altar, and now, the honeymoon begins.

Writers, photographers, radio-TV men and outdoor motion picture photographers, wives, children and representatives of outdoor recreation-related industries took over Callaway Gardens at Pine Mountain, Georgia, for a week in June at the 41st annual convention of the Outdoor Writers Association of America.

The convention had the largest number of active writers of OWAA. There were 246 actives at the Georgia convention this year, nine more than Florida's record breaker of 237 two years ago.

The previous second highest record was by Colorado in 1966, when 170 active writers and a total of 441 attended. Had housing needs been more accurately estimated, Georgia might have set a higher record — space was filled by early June, with others wanting to come at the last minute.

Assurance has already been given that most of the major outdoor publications

will carry articles about the writers' adventures in the Peach State.

A number of newspaper columns from across the nation, describing the writers' visit to our state, have been sent in to the Game and Fish Commission.

But this is only the beginning. More such good publicity is soon to be coming. And with it, will be a new and brighter, better reputation for Georgia throughout all the nation.

Tourism is bound to increase over a period of years, thanks to the convention having been here. All this will mean a big boost to the overall economy of the state.

One writer, for example, when selecting his post-convention story-gathering trip, extracted a promise that his guide answer all mail he receives as a result of an assured magazine article in one of the big three outdoor publications in the nation. "You'll have to answer as many as 2,000 letters from readers," he warned. He wasn't bragging. He knew from experience.

Of course, to assure that a writer will

present Georgia in a desirable light was necessary to be sure the writers enjoyed their stay here. They did. Evidence is given by excerpts from some of the letters from the OWAA members to the convention chairman.

From Don Cullimore, OWAA executive director:

"The general consensus of opinion from comments at the convention, and in letters received since from members is that — all things considered — it was the most successful meeting OWAA ever has held. I would certainly call that.

"That's taking into consideration over-all pre-organization, the precise logistics during the meeting, services and trips provided by Georgia personnel, press room handling, displays, sponsored affairs, workshops, and outdoor activities, and just generally very pleasant surroundings, and the number and quality of the membership present!

"You did one heck of a fine job. You were way out ahead of my best expectations, timewise, in nailing down

It was a fun convention for 246 members of the Outdoor Writers Association of America (OWAA) this summer at Callaway Gardens, Ga. Writers started off with a bang at the Winchester Gun Club shooting clinic.



ance-planning details — which, in the
st analysis, is the major contributory
factor in successfully organizing any-
thing as complicated as an OWAA
meeting has become. You were fortune-
ate in having some hard-working vol-
unteer aides. And believe me, I sure ap-
preciate what you accomplished!"

From Bill Potter, outdoor editor of
the Joplin, Mo., Globe:

"Sure had a delightful time in your
state and owe you a personal vote of ap-
preciation . . . Callaway Gardens really
is a wonderful place and I would like
to come back. . . ."

From Catherine E. McMullen, editor,
Better Camping Magazine:

"I just want to say thanks a million
for the wonderful time you arranged at
the Outdoor Writers convention. The
hospitality extended by your state was
much appreciated. Thanks for the me-
morable time in Georgia."

From Seth Myers, OWAA secretary-
treasurer and outdoor editor, Sharon,
Pa., Herald:

"We (OWAA) can never make you
and your grand people in Georgia know
how much we appreciate the thousand
and one things you all did for us at the
OWAA National Convention. I shall
never forget you — your Governor Les-
ter Maddox and your director, George
H. Bagby — what a great team of Ameri-
cans — We love all of you."

From John W. Marsman, Advertis-
ing Manager, Savage Arms Co.:

"You and your people put on a first
class convention. Just want to thank you
for the fine job you and they did."

From Willard T. Johns, National
Wildlife Federation, Washington, D. C.:

"Just a short note, but an important
one, to express our sincere congratu-
lations and appreciation for all you and
your co-workers did to make the 1968
OWAA convention such an outstanding
success. I, for one, rate it as the best
organized and most efficiently run meet-
ing of its kind that I have ever at-
tended. I know most everyone else who
was there felt the same way. I didn't
hear one single complaint."

From Eddie Finlay, S.C. Wildlife Re-
sources Commission:

"Let me congratulate you on the
smoothness with which the convention
went off. I know how much work must
have gone into planning the convention
and think you and everyone else in-
volved should be congratulated."

From Mrs. Rae Oetting, free lance
writer, Minneapolis, Minn.:

"How do you expect Minnesota (next
year's convention site) to follow you
when you did such a magnificent job on
the convention in Georgia? I don't know
if we're pleased or not, you see you have
made us a great, big pile of work and
we'll never be able to top you!"



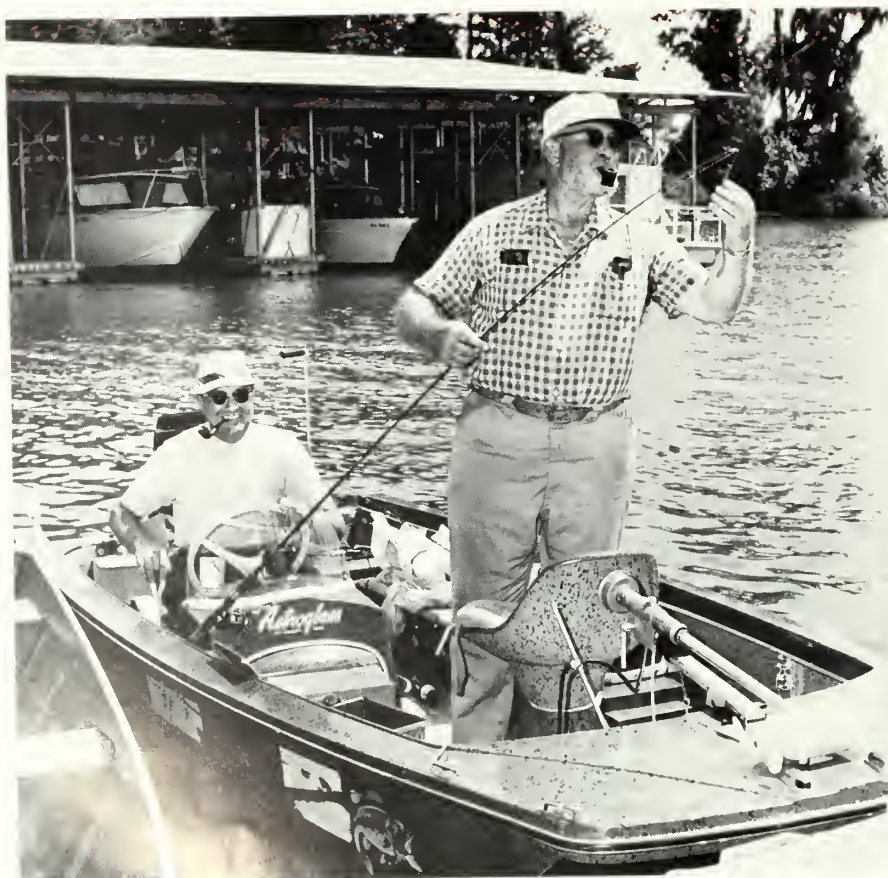
School was never like this! Manufacturers of outdoor equipment and supplies flocked to the convention to demonstrate their latest products, including modern reloading equipment for shotgun shells.



Back to the bow, boys! Representatives of the American Archery Council gave OWAA members instruction in archery, one of the fastest growing outdoor sports.



As general chairman of the convention, Georgia GAME & FISH staff writer Dean Wohlgemuth, left, was busy as a one armed paper hanger all week keeping things running smoothly, but he still found time to give some tips during the fishing clinic to Kenneth Sprenger, outdoor editor of the Tonawanda News (N. Y.)



During the OWAA convention, most of the writers took off an entire day for a fishing trip on Walter F. George Reservoir. Many writers took other trips before and after the convention to visit Georgia communities to gather information and photographs for stories on fishing, and vacation sites.

"I think it was a wonderful convention, smooth-running and best of a very helpful. Personally, I made many contacts which may prove helpful, ran into a story at the Marine Lab on Sapelo Island that excites me very much, got a picture story from my shrimp trawler ride and came home happy, tired and too well-fed."

From Karl H. Maslowski, noted producer of outdoor wildlife and conservation films, Cincinnati, Ohio:

"This letter should be simply a little ripple in the flood of complimentary mail you receive from OWAA members concerning the magnificent job you did in organizing the Callaway Garden meeting. I want to thank you and the Commission for being so extremely helpful and generous."

From Dick Kotis, president, Fred A. Bogast Co., Inc., Akron, Ohio: "The courteous Game and Fish people sure did a great job. . . ."

From Will Rusch, McCulloch Corp., Los Angeles: "Everything was just great!"

From Garrett Sutherland, free lance writer, Southern Pines, N. C.: "Heard all sorts of excellent comments about the Callaway Gardens meeting was one of the finest I've ever attended — bar none!"

These are just a few of the comments received. Others were similarly complimentary. As one writer said, "I never dreamed Georgia had so much to offer. And to think, I've been overlooking it for all these years!"

Georgia won't be overlooked any longer. 🐟



One of more than two dozen guest speakers and lecturers at the OWAA convention was Georgia's Bill Baab, the outstanding outdoor editor of the Augusta Chronicle. Baab told writers how he covers hunting, fishing, and boating in his daily paper and pointed out the need for expanded outdoor coverage by most newspapers.

BEAR FACTS ...and fables

By Marvin Tye

Far ahead we could hear the savage
aying of the hounds that indicated a
eed bear. Hunting outfitter Don Wil-
ox and I ducked our heads and shielded
ur eyes from the low limbs of aspens
nd pine trees as our horses raced down
e side of Snap Canyon.

A neighboring rancher reported that
bear was killing his sheep. He asked
r aid in tracking the animal down.
ilcox and I had hunted the rugged
nyons for the past three days in a
in attempt to find the rogue bear.

Finally on the fourth day we were
successful. Almost at the bottom of
nap Canyon, the bear glowered down
us from his perch high in an aspen
ee. I dismounted, placed an arrow on
e string of my hunting bow, and pro-
ceeded to end the career of a tremen-

dous black bear which had lived almost
past his prime and now menaced live-
stock in this remote section of Utah.

This bear was recognized by the Pope
and Young Club as the largest ever to
be bagged in Utah with a bow and ar-
row. The handsome brown-haired skin,
now made into a six-and-one-half foot
rug, commands the attention of every-
one who visits my home.

Bear hunting can be hard work, de-
manding a lot of planning, but the re-
sults are usually worth it. The successful
hunter will have a magnificent trophy,
as well as a truly exciting experience.
For the gourmet, bear meat is a bonus.

It's possible to experience this thrill-
ing pastime right here in Georgia. Al-
though the sport is not publicized here
as it is in many other parts of the coun-

try, bears can be legally hunted in five
Georgia counties, surrounding the Oke-
fenokee National Wildlife Refuge:
Brantley, Charlton, Clinch, Echols, and
Ware. Hunting in this area can be ar-
ranged through a good outfitter. One
such outfitter is Jack McKey, P. O. Box
1006, Valdosta, Georgia 31606. McKey
operates Wilderness Camping and
Guide Service and also arranges fishing
trips and hunts for other game animals.

Hunters kill at least 25 and maybe
more black bears in Georgia each year.
Many of these are legal kills in the area
where such hunting is allowed; however,
a large number of bears are illegally
killed in sections of the state where they
are entirely protected.

The most recent incident of this type
was the killing of a bear which wan-





Georgians are missing out on the thrill of bear hunting found in many other states because of unreasonable public fear, resulting in a miserable lack of protection for the animals. The author bagged this record class bear in Utah with a bow and arrow. Why not in Georgia?

dered into Atlanta during the past spring. The bear was sighted a day or two before, and local law enforcement agencies tried to locate the bear and capture it. A guard at a local country club spotted the bear on the golf course and killed it.

Many irate citizens thought that the man should be prosecuted for violations of several laws such as killing a bear out of season, killing a bear in a county which does not allow bear hunting, illegal discharge of firearms, and others. Some individuals just as strongly believed that the bear should have been killed. They argued that in such a densely populated area, the unpredictable reactions of the bear would make it a threat to the safety of children and pets as well as adults. In this case, the killing of the bear may have been justified. Both sides have their merits.

A bear was spotted near a Missouri city two months ago. According to newspaper reports, a near hysteria gripped the inhabitants of the area. They formed posses and searched the countryside hoping to destroy the animal, despite pleas of local officials to leave it alone. Early efforts to stock bears in North Georgia were abandoned when the roaming animals were killed.

Folklore and legend have always portrayed the bear as a vicious killer. Fear of the bear as a menace to humans and their livestock has prompted many persons to kill any bear on sight.

Most of the cattle killers and other bears dangerous to man have been the grizzly bear of the American West or the Alaskan brown bear, the world's largest flesh-eating animal. Neither of these species are found in Georgia.

The black bear is the smallest of all North American bears, its maximum weight being somewhere in the neighborhood of 800 pounds. Alaskan brown and polar bears sometimes weigh as much as 1,200 pounds. A Georgia black

bear weighing more than 300 pounds would be considered extremely large. In addition to being the smallest species of bear, the black is also the most widely distributed. It is found in almost every state in the Union, from Florida to Alaska, throughout Canada, and in certain locations in Mexico. Coloring of this species ranges from jet black to a white phase found in sections of British Columbia. Generally, black bears found in the eastern portion of the United States and Canada are of the darkest shades of black, while those found in the West are more likely to be a lighter brown or almost blond color.

According to Hubert Handy, Chief of Game Management for the Georgia Game and Fish Commission, the bears found in Georgia are most likely to be harmless to humans and to livestock.

A bear will eat just about anything. Fruits, berries, grasses, buds, the inner bark of evergreen trees, insects, fish and carrion are important items in their diets. In this state, the forests provide all of the food of this type that the bears could need. There is no reason why they should kill livestock.

The owner of bee hives might have a justified complaint against the black bear. A bear will eat honey just about anytime he can find it. Many have been killed in South Georgia by hive owners protecting their property.

In a way the hive owner can't be blamed for killing a bear. He has a lot of time and money at stake. Yet, there is a relatively simple, cheap method to protect the hives without killing any bear which happens to pass by.

A small amount of materials and labor will provide a completely bear-proof hive platform. This platform, designed by the Florida Game and Fresh Water Fish Commission, has adequate space for 50 hives and is serviceable for fifteen years. Cost varies with location, but averages about \$170. This would cost the hive owner about 22½ cents per hive per year. Plans for constructing this hive can be obtained by writing the Georgia Game and Fish Commission, 401 State Capitol, Atlanta, Ga. 30334.

Normally, a wild bear will not molest a man. The bear tries to avoid humans and will usually disappear as soon as it gets the scent of man. Even where they are plentiful, bears are rarely spotted in the wild, providing of course that there is adequate cover to conceal their movements.

The bigger danger to man comes from a female bear, which will fight to defend its young, or from the seemingly tame bears found in parks.


One big problem with Georgia bears is that they will not stay in a small area for any great length of time. Bears like to roam. They might wander as far as 100 miles from the areas in which they

are normally found. When they pass too close to a small town or farm, the human population is likely to fear for their lives and kill them. The Game and Fish Commission urges these people to leave the bears alone or to call the Commission if the bear becomes a nuisance.

After the first bear which wandered into the Atlanta area earlier this year was slain, two more were discovered on the outskirts of the city. These, a male and a female, were captured with the aid of a tranquilizer gun and released in the Blue Ridge Management Area.

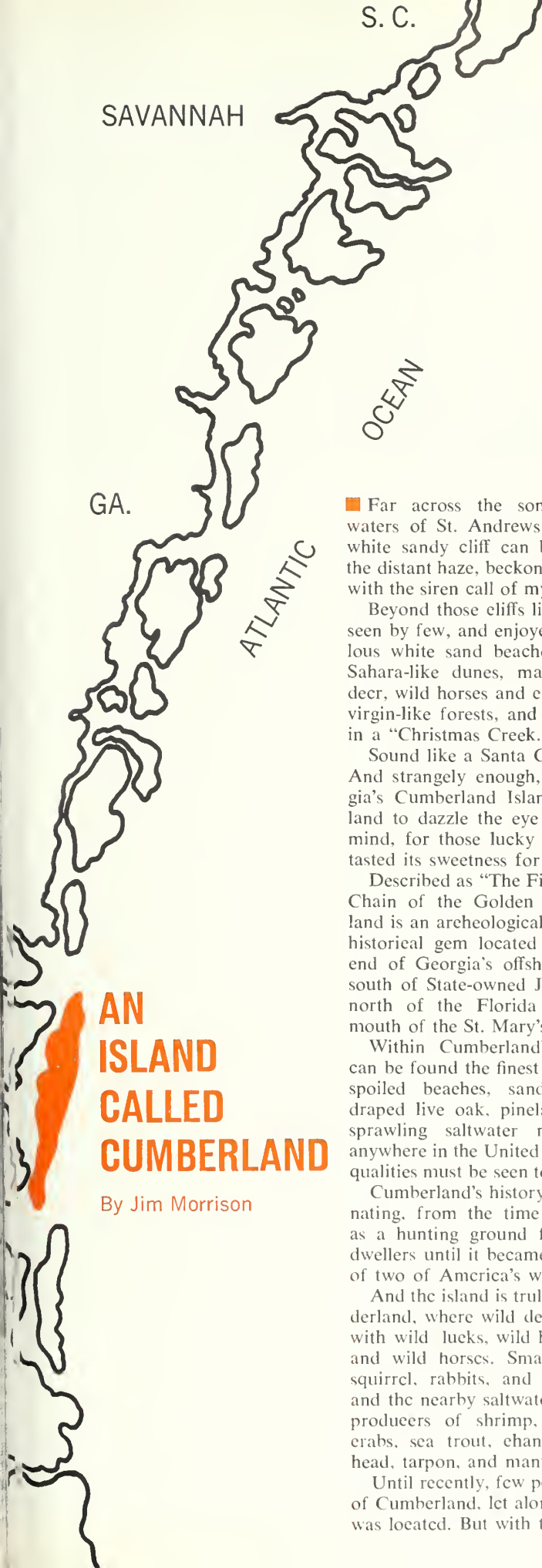
If a large population of bears could be established in Georgia's wildlife management areas, a limited amount of hunting would be permitted. Besides offering an exciting sport for the hunter with a real trophy for those who are successful, this hunting could help to boost the economy of towns around the management areas.

At this time, the only places where the bears are safe are in the wildlife management areas where they are found and in the remote swamps of South Georgia. According to estimates by the U. S. Bureau of Sport Fisheries and Wildlife, only 110 or 120 bears are located in the 340,000 acres of the Okefenokee Swamp designated as a federal wildlife refuge. Many of those that stray off the refuge are killed.

If man could become more tolerant, he could gain another valuable wildlife resource. 



A few bears have been stocked on Georgia's wildlife management areas in North Georgia, including a bruin captured with the aid of a dart gun by the Atlanta Game Society inside metropolitan Atlanta this summer. Released by area manager Walt Sutton on the Lower Blue Ridge Game Management Area above Dalton, the frightened animal did waste time making tracks for the wood-



SAVANNAH

S.C.

OCEAN

GA.

ATLANTIC

AN ISLAND CALLED CUMBERLAND

By Jim Morrison



■ Far across the sometimes choppy waters of St. Andrews Sound, a high, white sandy cliff can be seen through the distant haze, beckoning the onlooker with the siren call of mysterious beauty.

Beyond those cliffs lies a wonderland seen by few, and enjoyed by less: fabulous white sand beaches, mountainous Sahara-like dunes, majestic mansions, deer, wild horses and cattle, sea turtles, virgin-like forests, and fantastic fishing in a "Christmas Creek."

Sound like a Santa Claus story? Yes. And strangely enough, it's true. Georgia's Cumberland Island is a wonderland to dazzle the eye and delight the mind, for those lucky enough to have tasted its sweetness for themselves.

Described as "The Finest Pearl in the Chain of the Golden Isles," Cumberland is an archeological, biological, and historical gem located at the southern end of Georgia's offshore islands, just south of State-owned Jekyll Island and north of the Florida border on the mouth of the St. Mary's River.

Within Cumberland's 23,000 acres can be found the finest examples of unspoiled beaches, sand dunes, moss-draped live oak, pineland forests, and sprawling saltwater marshes located anywhere in the United States. Its scenic qualities must be seen to be appreciated.

Cumberland's history is equally fascinating, from the time when it served as a hunting ground for early Indian dwellers until it became the playground of two of America's wealthy families.

And the island is truly a wildlife wonderland, where wild deer abound along with wild ducks, wild hogs, wild cattle, and wild horses. Smaller species like squirrel, rabbits, and raccoons thrive, and the nearby saltwaters are abundant producers of shrimp, oysters, clams, crabs, sea trout, channel bass, sheepshead, tarpon, and many other fish.

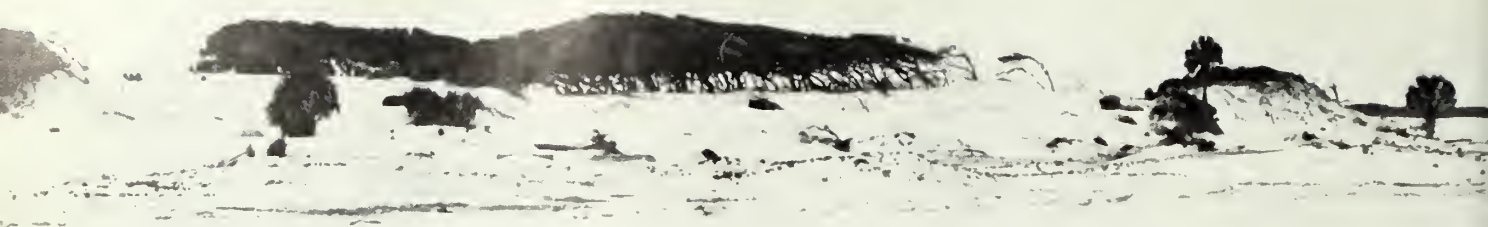
Until recently, few persons had heard of Cumberland, let alone knew where it was located. But with the proposal that

it be added to the growing chain of National Seashores, the spotlight of publicity struck Cumberland and has refused to move from it, primarily because of the controversy over what the future fate of the island will be.

Because of its exclusive private ownership, few people in recent years have ever visited Cumberland, at least as invited guests, until now. For years, Cumberland has been the domain of its handful of owners and their lucky visitors who have enjoyed its great beauty and fabulous hunting and fishing unmolested by the general public, except for an occasional marine poacher.

Sometimes punctuated by exchanges of gunfire, these forays by a few individuals willing to risk arrest and stiff punishment have sometimes reached extreme levels. Once, two of them disarmed one of the female owners of the island of her rifle and left her tied to a tree all night before she was rescued. Another time, vandals are believed to have burned the old unoccupied Dungeness mansion of Thomas Carnegie to the ground. Recently, wildlife rangers captured two poachers by following an all night trail of destruction that left more than a dozen deer, wild horses, and cattle dead across the island. Such occurrences are less common now that wildlife ranger patrols have been beefed up.

But now, for the first time it is possible for a few selected sportsmen and sightseers to visit Cumberland on a pay-as-you-go basis. Searching for a way to make a living off his Cumberland inheritance without being forced to sell or develop it, Rick Ferguson, one of the Carnegie heirs, decided to open his family's portion of the island to a few paying guests. So far, the project is a successful one. Even though Ferguson has made no effort to advertise his "lodge" on the island, he has drawn a steady capacity quota of visitors since he first began accepting guests for hunting and fishing in 1966. Since then, he



*Like a scene from another world . . .
Cumberland's unspoiled beach is the
most beautiful on the entire Georgia
coast.*

has also begun catering to groups who just want to explore the island, comb its thirteen and a half mile long white sand beach for driftwood and sea shells, or just to poke around in the ruins of its old mansions, perhaps looking for valuable antique bottles.

My long awaited chance to visit Cumberland came last year. I jumped at the invitation issued by Rick Ferguson through David Almand, the wildlife specialist of the University of Georgia's Cooperative Extension Service in Athens. Along with Jim Adams of Tucker, President of the Georgia Sportsmen's Federation; Bill Baab, Outdoor Editor of the *Augusta Chronicle*; and Dr. Joe Daniel of Macon, we were invited to spend two days hunting ducks and deer on the island.

Loaded to the gills with hunting equipment, we met Rick Ferguson at his normal port of call Friday morning at the city docks in Fernandina, Florida, the nearest major city to Cumberland, which is also seven miles away by water from Woodbine, the small county seat of Camden County, Georgia, in which Cumberland lies.

We were hardly out of sight of the dock before Dave Almand and Jim Adams began to excitedly point out wild ducks bobbing up and down on the sound, or darting past the boat, along with many other varieties of water birds. Over the roar of the engines, we shouted eager questions to Rick, a soft spoken man who hasn't lost the slight Scottish accent of his ancestors. Tall, slim, and sandy brown haired, Rick is obviously a man in love with an island.

"I don't know of anywhere I'd rather live than Cumberland," Rick said. "I guess when you've grown up on a place and gotten to know it like I have, you don't want to part with it. If you want to know how I feel about the National Park idea, I'm against it. Cumberland has been preserved like it is because it's stayed in private hands, and I think

that's the best way to save it." Rick is especially against building a causeway to the island, feeling that the widespread construction of roads, parking lots and gas stations on the island would ruin its scenic charm. "The island should be left just the way it is," Rick says with feeling. "They've already ruined Jekyll. We don't need another one."

Passing by the ruins of the Dungeness mansion, we soon arrived at the dock of the old family mansion known as Greyfield used by Rick as a lodge, where we were met by the island's pick-up truck, which we rapidly filled up with gear. Walking along the short road to the house, we began to drink in the sub-tropical beauty of the island, walking through the moss-draped live oaks surrounding the mansion. As we walked, Rick explained that after we settled in our rooms and had lunch, he planned to give us a quick jeep tour of the island before hunting hours began.

Leaping into two of the island jeeps after lunch, we roared down the main shell road south to the ruins of Dungeness, a huge palatial mansion built by Thomas Carnegie, brother and partner of Andrew Carnegie of Pittsburgh. Both magnates of the steel industry, Andrew is well known as the endower of many "Carnegie" libraries across the country.

The spot was originally named Dungeness by General James Oglethorpe, founder of the colony of Georgia, who built a hunting lodge there on the site of an old Indian shell mound, the leftover dinner remnants of the island's early residents, perhaps as far back as 8,000 B.C.

Not far away in an old family cemetery bordered by one of the many salt-water tidal creeks on the west side of the island stands the tombstone of General Lighthorse Harry Lee, famous Revolutionary War general and father of Robert E. Lee, the commander of the armies of the Confederacy.

Returning on a ship from the West

Indies in 1818, the old general fell ill and asked to be put ashore at the home of his old friend General Nathanael Greene's widow and her family, where he died and was buried until the Virginia Legislature removed his body in 1913 to lie beside that of his famous son at Lexington, Virginia. His tombstone still stands on the island, erected by Robert E. Lee, who visited his father's grave there many times. It was the elder Lee who described General Washington on his death as "first in War, first in Peace, and first in the hearts of his countrymen."

Although we had seen only a small portion of Cumberland's historic ruins, the afternoon was at an end, and evening would begin shortly. Rushing back to Greyfield, we quickly changed into our hunting clothes and drove to the upper section of the island, where Rick dropped us off one by one from the jeep in the best deer sections.

Evidence of heavy use by deer and wild hogs was abundant at the game trail crossing where I stepped off. Carrying my portable tree climbing stand on my back, I began scouting both sides of the road for a good location. It did not take long to tell that one side of the road was as different from the other. The mountains of north Georgia are the flatland Thomasville plantation. The north side of the road was an open, thickly overstoried live oak, and mild hardwood-pine-palm forest, while the southern side was a fern-covered, moss-draped live oak forest with a thick ground cover of saw palmetto clumps, bordering a shallow wooded freshwater swamp, one of many stretching across the island.

Since I had already killed a deer earlier in the season with my rifle, I was anxious to bag a buck with my hunting bow. Knowing that I would not be able to take a shot more than 40 yards away, I decided on a tree commanding a narrow clearing along the swamp.

I had scarcely settled on my stand when the thunderous roar of a 12-gauge shotgun exploded over the other side of the swamp, where Dave Almand was hunting. When the first shot wasn't followed by others, I was sure he had bagged his second deer of the season. Now I was even more anxious than before to do the same.

Perhaps an hour of impatient waiting later, it happened.

Out of the corner of my eye, I saw a slight movement along the palmetto. Slowly turning my head to the left, I saw the outstretched head of a doe, carefully scanning the undergrowth in each direction. At last, satisfied, she stepped forward several steps, followed by a second doe, equally cautious. Taking turns keeping watch, they slowly moved forward a few steps at a time, stopping to look, then quickly taking a few bites off some low bushes.

Suddenly, both deer stopped, and looked intently back down the small trail they had followed out of the palmetto. With my heart pounding at a fever pitch, I drew back the knocked arrow on the string, waiting for the buck to step out in the clearing, just 20 yards away!

And then my heart dropped back out of my throat, as another doe, larger than the first two, stepped out into the clearing. Frustrated, I nervously watched the opening until dark, long after the three does had gone on their way, waiting for the antlered buck to make his appearance. But he never came.

That evening, we picked up a sheepskin David Almand, shotgun in hand. "I missed the biggest wild hog I've ever seen in my life!" he groaned. "He must have been seventy yards away, running thirty miles an hour after I shot that buckshot!" Cursing his luck for not taking a rifle instead of his shotgun, Dave slumped in the back of the jeep. Earlier, he had also seen two does.

Joe Daniel had taken a rifle with a telescopic sight to a stand on one of the sand's dune areas where deer tracks were abundant. Although he saw several does, some of them fairly large, no bucks were evident. Where were they?

Jim Adams may have solved the mystery. "Take a look at this," he said, pulling a three point deer antler out of the pocket of his hunting coat. "That antler just fell off a buck," he exclaimed. The antler was still in perfect condition, bleached by the sun and without the usual squirrel and rat gnawing marks seen on old antlers found in the woods before they are completely eaten up by the calcium-seeking rodents.

"I bet the bucks on this island have already shed their antlers," Dave said. "I've heard that they start dropping

them this far south in December, but this is the first time I've seen it for myself!"

Back at the house, we met a jubilant Bill Baab, who had decided to go fishing in one of the freshwater lakes at the northern end of the island with Rick. "Well, I've caught my supper," he beamed, flashing a stringer of several nice two-pound bass. "Where's yours?"

The next morning, we woke before daylight for breakfast to the sound of a sudden coastal shower drenching the sandy soil, soon turning to a slow misty drizzle as we drove to Rick's duck blinds, constructed around one of the long, narrow "finger" lakes in the middle of the island.

Just when I had about gone to sleep, the first duck sped over the pond from behind us and flew away, without a shot being fired. "Would you look at that!" I said.

Before we could close our open mouths, three more ducks burst through the mist over the thick bushes screening our blind and darted away, still without a shot being fired!

When the next duck, a large gadwall, flew over the pond, we were ready. "Blam!" Bill blasted away with his 12-gauge pump, but the duck kept flying, unscratched. "Blam, Blam!" I blazed away with my "Sweet Sixteen," only to see the quarry getting farther and farther away. Almost certain that he must have been 60 or 70 yards away by then, I fired the third shot, and watched in amazement as the bird plummeted from the sky into the far edge of the pond!

"I got him, I got him!" I cheered.

Before I could get over my elation five gadwalls flashed over the pond. "Blam, Blam, Blam, Blam!" I emptied my gun, and Bill fired twice, but in vain.

Just then, a small hooded merganser flew down the length of the pond, giving me my first crossing shot. "Blam." A miss. "Blam." He came tumbling down, hitting the water like a ton of bricks, with a loud "splash!" the kind of satisfying sound that only a dead duck can make.

By the time the morning's shooting was over, our party had its limit of ducks, primarily gadwalls and green-winged teals. Just as Rick had predicted, few mallards were resting on the island at the time, although we did see some. Like all migratory species, flocks of mallards fly in to Cumberland, feed and rest awhile, and fly on their way. Hunting them is unpredictable for this reason, although we later learned from some other hunters that the mallards favor a few of the smaller interior ponds that we didn't try hunting on.

I can't say that I am convinced Cumberland should be a National Seashore, although the National Park Service is



Their limit of Cumberland Island duck shooting in a single morning is reason enough to make David Almand and Joe Daniel happy. (l. to r.)



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So near, yet so far away. Members of the author's party gaze longingly at hundreds of sea ducks diving in the shallow water off the Cumberland beach, just out of shotgun range. Duck hunting is better during bad weather when the ducks must return to the island to feed in calmer waters.

One of the Carnegie family members decided to sell the island to the U.S. government. The government would then build a road to the island, and the island would be preserved as a national seashore.

probably right in saying that Cumberland potentially is the most popular and finest such area remaining undeveloped on the Atlantic or Gulf coasts.

Cumberland has the finest, longest, and most beautiful beach of the entire Georgia and perhaps Southeastern coast. Its magnificent 50-foot high, shifting mountains of sand dunes constantly covering live trees and uncovering gaunt dead ones fascinate the eye. Its multitude of freshwater lakes, ponds, and marshes are a waterfowl haven. Its forests are a virgin-like sanctuary for deer and wild game by the score. Its marshes are miniature laboratories of sea life in its infancy. Its crumbling ruins are the monuments of man's past, and perhaps of his future.

One thing does seem certain to me, and that is that the Cumberland that exists today should be, and must be, preserved. If it is destroyed, there will never be another.

Perhaps Rick Ferguson is right. Perhaps the best way to preserve Cumberland as a wild scenic wonder is for it to remain in private ownership, just as it has almost since the white man first drove the Indians off it. Perhaps the National Park Service is right in believing that the only way to protect Cumberland from future commercial real estate or mining exploitation is to place the island in public ownership as a National Seashore. Some individuals have even suggested that the State should acquire it, perhaps as a game management area, allowing hunting.

At the present, the National Seashore proposal faces a rough road to adoption. Most of the island owners, heirs of the Carnegie and Candler families, understandably are opposed to giving up their family island. The Camden County Commission and Congressman William S. Stuckey of Eastman, who must introduce any bill to make Cumberland a National Seashore, are both on record as opposing the project, unless an automobile causeway is built to connect the island with the mainland just as St. Simons and Jekyll Island are today.

So far, the Natural Park Service has refused to agree to the causeway, on the grounds that automobile access would help to destroy the very qualities of the island that a National Seashore would be designed to preserve, both because of the greater human visitation with its impact on the island's wildlife and scenic purity, and because of the destruction of portions of the island that would be necessary to build roads, parking areas, gasoline stations, and the other facilities that would be required by a large number of motoring tourists. They say that Jekyll and St. Simons, the two most developed islands and the only major ones with causeways, illustrate what happens to the natural values of

the islands when they are so accessible.

The arguments on all three sides are many, and all have their merits. Each group has its own, and I have mine. Personally, I would regret seeing the island ever changed much from what it is today, and whatever plan would accomplish that goal would seem the wisest.

I'd like for many other people to have a share in the pleasure that I experienced by visiting the island, but not by doing so, they destroyed the qualities I went there for, including solitude and quiet. I can't convince myself that turning 25,000 automobiles a day loose on Cumberland's 24,000 acres is the answer. I'm equally apprehensive over the



The main highway around Cumberland is a moss-draped live oak forest is a shoulder road, made to order for jeep transportation needed in the sandy sections of the beach and dunes area.

prospect of door to door subdivision and summer "cabins", and for that matter, of stake to stake tents in a public campground, picnic areas, bathhouse, boat docks, and buses.

And even more personally perhaps as a hunter, I hate to see one of the finest 24,000 acre hunting areas in Georgia locked up forever under the "No Hunting" policy of the National Park Service, a wasteful practice which denies sportsmen justifiable recreation on public land which actually benefits, rather than harms, wildlife if properly controlled to prevent overharvesting as well as harmful overpopulation.

If we could be assured that Cumberland would remain undeveloped and commercialized in private ownership perhaps this is the answer, at least until the public is ready to realize why Cumberland is unique, to avoid "killing the goose that laid the golden egg" the Golden Isles.

More influential, and I hope, will be the men than I will decide the ultimate fate of Cumberland, and in doing so, to convince many other men that they are right. While they argue, I only hope that I will still be able to call "Greyfield" Fernandina for another trip with Rick Ferguson back to one of the most wonderful spots on earth — an island called Cumberland. 🐾

That this is a real threat is graphically illustrated by the nearby Port Royal Sound in South Carolina where dredging for shipping channel resulted in saltwater encroachment in the water supply of Beaufort, S. C., forcing that town to construct a million dollar canal to the Savannah River for water.

Dredging of any kind is a sloppy operation that results in heavy siltation of the river, reducing the production of aquatic organisms in the water that shellfish and fish feed on. The ocean floor in the area question out to the three mile limit is under 20 feet of water or less, and in undisturbed state is an important proper of aquatic organisms that marine life depends on. The productivity of this floor could not only be destroyed by actual removal, but also by possible coating with colloidal slimes that the company proposes to pump 10 to 15 miles out to sea. On the continental shelf there is 80 miles of material dumped short of that distance which might easily return to shore in a tidal current, coating the marshes for miles up and down the coast and destroying their productivity. Pollution of the ocean itself seems impossible now, but operations of this kind could have that effect on the entire sea in time, with the increase of such "dumping" operations. Storing the material in inshore ponds is not a permanent solution either, since the threat of a coastal hurricane breaking the dikes and releasing the slimes would always be present.

But probably the most important reason for the State Mineral Leasing Corporation denying the request of Kerr-McGee is the proposed filling of the marshlands, an unnecessary step that would forever destroy a portion of the seafood and fin fish production capacity of the Georgia coast, as well as the scenic beauty of the unique marshlands.

At present, the commercial seafood industry in Georgia alone is valued at more than \$35 million dollars a year. Sport fishing in the area is just getting started, and is already estimated in value at more than \$7 million dollars a year. Many aspects of commercial fishing for species like mullet, snappers, clams, and crabs are almost unexplored, and have a potential future value of many more millions of dollars, year after year... unless the marshlands are eliminated.

Recent studies have indicated that 100 percent of the shrimp and 85 percent of the fin fish caught in the ocean on the Atlantic coast are dependent on the adjacent marshland as a breeding or food production area. Many species of wildlife, including migratory waterfowl, also rely in some measure for their very existence. Science now feels that the marshes, so unappreciated, are actually the most productive lands known to man. It has been said that one acre of marshland is equal in food production and fertility to 100 acres of the best cropland.

It perhaps could be argued that the fishing industry would be worth more to

the local economy than the seafood, sport fishing, and duck hunting, at least for the short period of years until the phosphates are exhausted and mining stops. Some valuable real estate might be created to temporarily provide jobs in construction and add to the tax rolls, but good building sites on dry ground aren't in short supply in Chatham County, just as phosphates really aren't in much demand now.

So which would be the most valuable to Georgians in the long run: the temporary influx of mining industry payrolls that will peter out in five, ten or fifteen years, or a booming industry like seafoods and sport fishing that will become even more valuable in future years as marshlands disappear in other locations, and that will continue to produce money for the local economy for the next 100 or 1,000 years... long after the phosphates are gone and construction stopped... if the marshes are preserved in their natural state?

As chairman of the State Mineral Leasing Board, Governor Lester Maddox has called two public hearings on the proposal so that interested citizens may be heard, the first hearing in Atlanta at 9:30 a.m., September 16, in the State Capitol, Room 314, the second in Savannah at 9:30 a.m., September 30, in the Chamber of Commerce Building, 100 East Bay Street in the Assembly Room. Persons desiring to testify should indicate their intention to do so by registered mail 10 days before the hearing date to the Honorable Arthur K. Bolton, Attorney General of Georgia, Room 132, State Judicial Building, Atlanta, Georgia 30334. Persons who cannot be present may send a representative to present a statement for them, or may submit written statements for inclusion in the record of the hearings.

A report by a special study team has also been requested by Governor Maddox from the University of Georgia, Georgia Tech, and the Skidaway Oceanographic Institute before the Leasing Commission makes a decision by November 30 on whether or not to accept the bid of Kerr-McGee, giving the green light for mining to begin.

The proposal has already been opposed by the State Game and Fish Commission, the State Water Quality Control Board, the Georgia Council for the Preservation of Natural Areas, the 1,000 member Georgia Conservancy, and the 6,000 member Georgia Sportsmen's Federation. More importantly, through the public hearings and by personal letters to Governor Maddox and the members of the Mineral Leasing Commission, individual Georgia citizens have an opportunity now to make their views known, before it is too late.—J.M.

(In addition to Governor Maddox, members of the State Mineral Leasing Commission include Secretary of State Ben Fortson, Jr.; Attorney General Arthur Bolton; A. S. Furcron, Director of the Department of Mines, Mining and Geology; W. Perry Ballard, Jr., 360 Nelson St., S.W., Atlanta; J. C. Bible, Jr., 748 Greene St., Augusta; Joseph Isenberg, 4226 9th St., St. Simons Island; Hugh R. Papy, 5714 Sweetbriar St., Savannah; and H. H. Sancken, 420 Pine Ave., Albany. All letters should be brief, courteous, and to the point.)

Sportsmen Speak...



S. E. Georgia Deer Season

I always enjoy reading your magazine, and am pleased to note the progress the Department is making. Congratulations to all of you good folks!

But I want to especially commend your very fine editorial in the July issue concerning the need for a uniform deer season. That was an excellent job, and I am proud of you for the way you handled this touchy problem.

Seth Gordon
Sacramento, Calif.

Seth Gordon is a former director of both the Pennsylvania Game Commission and the California Department of Game and Fish, as well as an internationally known conservation authority. He headed a team of consultants who conducted an important efficiency study of the Georgia Game and Fish Commission in 1964 which led to many significant advances in the Department's operations. (See the next letter comment on the S. E. Ga. deer season.)

May I express my congratulations on your timely and cogent editorial in the July issue of Game & Fish, on the merits of Georgia's uniform deer season. The establishment of a later opening date for South Georgia has long been needed and the State Game & Fish Commission is to be commended for taking this action. As one who has been born and reared in South Georgia, I have felt that hunting conditions there could and should be improved. Now, if we would just take a hint from our Canadian friends and limit deer dogs strictly to the breed of beagle hounds, it would go a long way to reducing "dog-kill" and would continue to allow those with a penchant for dog hunting to pursue their sport. It is an idea well worth considering.

Keep up the good work!

M. Francis Stubbs
Macon, Georgia

At the regular meeting of the Game and Fish Commissioners in July a number of members of the General Assembly and officers of deer hunting clubs from Southeast Georgia appeared carrying petitions with several hundred names. At their request the Commission changed the deer season in Southeast Georgia back to last year's opening date of October 15.

I would like to call your attention to your article in the July issue on the deer season.

I know we have capable biologists in the State and I am not attempting to criticize them, but in your article about the bag check is no indication of the population of deer because they do not walk up for you to shoot them in these thick woods. I am sorry to say that we have so many people that do not turn in deer tags when a deer is killed. I

(continued on the next page)

believe that most of the organized clubs do turn them in.

We have in this area of the State game and fish rangers that are as good as can be found and they are here all the time and see the deer population and I am sure they would agree that the population warrants an October season.

When you pay a high price to lease land, plant feed for deer, feed dogs, and protect the deer, it costs a high price for such a short season. On the Georgia side of the Savannah River are high grounds and planted fields and deer come from South Carolina and feed in Georgia and then go back to South Carolina where they are killed in season because these private clubs you talk about have large acreage and the membership is large on these clubs. Members come from many miles to hunt these acres.

J. I. Moore
Springfield, Georgia

As was pointed out in the article, we agree with you that the deer population is increasing in Southeast Georgia, but not nearly as fast as it should. Hunting would be much better than it presently is if sound conservation practices were implemented, especially shortening the length of the season and not allowing the use of dogs except in the lower coastal plains section. Our game biologists would allow the use of dogs to continue in your county, but in most counties further inshore they feel it should be abolished.

If you have ever had the pleasure of still hunting in the deer-rich section of Middle Georgia, you would be amazed at what modern game management can produce in the way of excellent deer hunting.

Many South Georgia deer hunters agree with and are glad the deer season will not open until November 4 this year. In previous years the October season has been extremely hot on man and beast (deer dogs). Also rattlesnakes seem to be out and crawling more. I'm not saying that it won't be hot after November 4, but the chances are that it will be cooler.

But my real complaint is that all hunting and fishing seasons should open on a Saturday to give the largest portion of the hunters a chance on that first day. There is just something special about that first day to most hunters. Last year (1967) most seasons did open on Saturdays and I heard many people comment on the fact. It just seems that Mondays and other weekdays are just a little biased against people who work and attend school on weekdays.

As a student of forestry, fisheries and wildlife at University of Georgia, I partially understand many of the reasons for hunting and fishing season opening dates, but I don't see any reason why all opening days for deer, quail and other game controlled by the Commission can't be arranged to open on Saturdays, and I believe I speak for other sportsmen that agree.

I am a subscriber to Georgia Game and Fish and enjoy it.

Ray Adams
Douglas, Georgia

The deer season was set to open on the request of a number of game and wildlife rangers from around the state that opening the season was a violation of the law.

Sportsman's Calendar

SEASONS OPENING THIS MONTH

DOVES

Early Season—Sept. 7, 1968 through Oct. 5, 1968.

Bag Limit—12 Daily, possession limit 24.

OPOSSUM

Early Season—Sept. 30, 1968 through Jan. 20, 1969 in Coweta County only.

Bag Limit—None.

MARSH HENS

(Gallinules & Rails)

Season—Sept. 21, 1968 through Nov. 29, 1968.

Bag Limit—15 Daily, possession limit 30.

SEASONS NOW OPEN

MOUNTAIN TROUT

Open Stream Season—April 1, 1968 through Oct. 15, 1968.

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. 15, 1968 through Sept. 7, 1968 in the following counties only: Dawson, Fannin, Gilmer, Habersham, Lumpkin, Murray, Rabun, Towns, Union, and White.

Bag Limit—10 Daily.

SEASONS OPENING IN OCTOBER

DEER

Archery Season—Oct. 1, 1968 through Oct. 26, 1968 in a county of a portion of a county which has an open gun season for deer hunting in the 1968-69 season.

Bag Limit—Two (2) bucks, or one (1) buck and one (1) doe or antlerless deer.

RUFFED GROUSE

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.

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. 29, 1969.

Bag Limit—10 Daily.

PIEDMONT NATIONAL WILDLIFE REFUGE

Turkey—October 21 thru 26. Refuge permit required. Applications must be in Refuge office by 4:30 PM September 25. Limit is one turkey of either sex.

Deer—Archery—October 1 thru 13. No refuge permit required. Bag limit as per State regulations.

Deer—Gun—Bucks only November 4 and

5. Bag limit 2 deer. Either sex. November 30. Bag limit 1 deer. Refuge permit required. Applications must be in Refuge office by 4:30 PM October 3, 1968.

Scouting—Daylight hours September 1 and 22 and October 26 and 27.

Camping—The camping area will be open one day before and one day after each of the above dates.

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. 23-26, 1968; Nov. 23-30, 1968; Dec. 30, 1968-January 2, 1969. *Archery hunt for turkey gobblers; bag limit*—two per season: Same dates as deer hunt periods. Applications for the deer hunt must be made by Oct. 17, for the turkey hunt by Nov. 20, and for the duck hunt by Dec. 23. Write to the Refuge Manager, Savannah National Wildlife Refuge, Rt. 1, Hardeeville, S. C. 29927.

STATE MANAGED AREA HUNTS

JOHNS MOUNTAIN AREA

DEER: (Archery) EITHER SEX. Open dates October 21 through October 26, 1968. Hunters may take one deer of either sex and small game as allowed by State regulations.

BLUE RIDGE AREA

DEER: (Archery) EITHER SEX. Open dates October 14 through October 20, 1968. Hunters may take one deer of either sex and small game as allowed by State regulations.

SMALL GAME: Open dates October 12, 25-26, 1968, December 6-7, 13-14, 1968. Hunters will be allowed to hunt grouse and squirrel.

CHATTAHOOCHEE AREA

SMALL GAME: Open dates October 19, 25-26, 1968, and December 6-7, 13-14, 1968. Hunters will be allowed to hunt grouse, squirrel, and rabbits.

CHESTATEE AREA

SMALL GAME: Open dates October 12, 25-26, 1968. Hunters will be allowed to hunt grouse and squirrel.

SPECIAL RACCOON HUNT: (.22 caliber fire rifles only). Open dates October 12, 25-26, 1968. Hunters will be allowed to hunt raccoons with tree dogs.

LAKE BURTON AREA

SMALL GAME: Open dates October 13-19, 25-26, 1968, and December 6-7, 13-14, 1968. Hunters will be allowed to hunt grouse and squirrel.

WARWOMAN AREA

DEER: (Primitive Weapons) EITHER SEX. Open dates October 14-19, 1968. Hunters may take one deer of either sex, any number of wild hogs, and small game as allowed by State regulations.

SMALL GAME: Open dates October 12, 25-26, 1968, and December 6-7, 13-14, 1968. Hunters will be allowed to hunt grouse and squirrel.

LAKE RUSSELL AREA

DEER: (Archery) EITHER SEX. Open

lates October 21 through October 26, 1968. Hunters may take one deer of either sex and small game as allowed by State regulations.

SPECIAL RACCOON HUNT: (.22 rim-fire rifles only). Open dates October 18-19, 1968, and 25-26, 1968. Hunters will be allowed to hunt raccoons with tree dogs. Dogs chasing deer will be barred from further hunting. Owners are responsible for their dogs and for any damage they may do to game other than raccoons.

CEDAR CREEK AREA

SMALL GAME: Open dates October 16, 19, 23 and 26, 1968; December 4, 7, 11, 14, 18, and 21, 1968; January 4, 8, 11, 15, 18, 1969. (Wednesdays & Saturdays). Hunters will be allowed to hunt quail, squirrel, rabbits, doves and ducks.

CLARK HILL AREA

DEER: (Archery) EITHER SEX. Open dates October 14 through October 19, 1968. Hunters may take one deer of either sex and small game as allowed by State regulations.

OAKY WOODS AREA

SMALL GAME: Small game hunting for quail, squirrel, and rabbits will be allowed on Wednesdays and Saturdays beginning September 11 through October 2, 1968.

SMALL GAME: Small game hunting for quail, squirrel, and rabbits will be allowed on Wednesdays and Saturdays beginning October 16 through October 26, 1968; December 4 through December 21, 1968, and January 1 through February 1, 1969.

SWALLOW CREEK AREA

SMALL GAME: Open dates August 15 through September 7, 1968, Fridays, and Saturdays only for squirrels. October 18-19; 25-26, December 6, 1968, through January 25, 1969, Fridays and Saturdays only. Hunters will be allowed to hunt quail, squirrel and rabbits.

COLEMAN RIVER AREA

SMALL GAME: Open dates August 15 through September 7, Fridays and Saturdays for squirrel only. October 18-19 and 25-26, 1968, December 6, 1968, through January 25, 1969, Fridays and Saturdays only.

ALLATOONA AREA

SMALL GAME: Hunters will be allowed to hunt any small game in season subject to State seasons, regulations, and bag limits.

LAKE SEMINOLE AREA

SMALL GAME: Hunters will be allowed to hunt any small game in season subject to State regulations, seasons and bag limits. Camping will be permitted. No hunting will be allowed on the refuge area at any time.

CARROLL-DOUGLAS COUNTY AREA

SMALL GAME: Hunters will be allowed to hunt any small game in season subject to State regulations, seasons, and bag limits.

COIHUTTA AREA

SMALL GAME: Hunters will be allowed to hunt any small game in season subject to State regulations, seasons, and bag limits.

ALTAMAHA WATERFOWL AREA (DARIEN)

Hunters will be allowed to hunt any game in season as provided by State law and bag limits except on Butler Island during waterfowl season and the refuge portion of Butler and Champney Islands at all times. **WATERFOWL:** Hunting for waterfowl will be allowed on Butler Island during waterfowl season by permit only. Permits must be applied for by mail from October 1 through October 31, 1968. All letters of application must specify the date requested with a second choice if desired in the event the first date is filled. Applications will be accepted on a first come, first served basis

and 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, Georgia.

Hunters whose applications were accepted will be mailed their permits no later than November 10. All applications that could not be filled due to dates selected being filled will have their \$5 refunded.

Assignments for blinds for each day's hunt will be made at the area headquarters the evening prior to each hunt. Each blind is assigned a number which is drawn at random and blinds assigned as the numbers are drawn and in the order in which applications were received and processed. Hunters will be assigned to the blind selected at the checking station the morning of the hunt. Hunters who have their permits do not have to come to the area until the morning of the hunt. All hunters should be at the checking station no later than 5:15 A.M.

The Game and Fish Commission will furnish blinds, boats and decoys to accommodate 50 hunters per day and all hunters must hunt from blinds as assigned. Transportation will be furnished to the boats. Hunting hours will be from 30 minutes before sunrise (same as Federal Migratory Waterfowl Regulations) until 12 Noon. Hunts will be conducted on Tuesday and Saturday only during the open season. Hunters will be limited to not more than 25 shells to carry onto the area.

All hunters 16 years old or older will be required to have a Federal Migratory Bird Hunting Stamp in addition to a valid Georgia hunting license.

For a complete copy of all management area hunt dates and directions, write to the State Game and Fish Commission, 401 State Capital, Atl., Ga. 30334.

SEPTEMBER 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1. Sun.	2:06	6.1	3:06	7.3	8:36	9:42
2. Mon.	3:24	6.1	4:24	7.5	9:48	10:48
3. Tues.	4:42	6.3	5:36	7.8	10:54	11:48
4. Wed.	5:48	6.8	6:30	8.1	11:54	
5. Thurs.	6:48	7.2	7:18	8.2	12:36	12:48
6. Fri.	7:30	7.6	8:00	8.2	1:24	1:42
7. Sat.	8:12	7.8	8:36	8.0	2:12	2:24
8. Sun.	8:54	7.9	9:18	7.7	2:54	3:12
9. Mon.	9:30	7.8	9:48	7.4	3:30	3:48
10. Tues.	10:06	7.6	10:24	6.9	4:06	4:30
11. Wed.	10:48	7.4	11:00	6.6	4:42	5:06
12. Thurs.	11:24	7.2	11:36	6.2	5:18	5:48
13. Fri.			12:12	7.0	6:00	6:36
14. Sat.	12:24	5.9	1:00	6.8	6:48	7:36
15. Sun.	1:12	5.6	1:54	6.7	7:48	8:42
16. Mon.	2:12	5.5	2:54	6.7	8:48	9:42
17. Tues.	3:24	5.6	4:00	6.9	9:48	10:36
18. Wed.	4:30	5.9	4:54	7.2	10:42	11:24
19. Thurs.	5:24	6.4	5:48	7.6	11:36	
20. Fri.	6:12	7.0	6:30	7.9	12:06	12:24
21. Sat.	6:54	7.6	7:12	8.1	12:48	1:12
22. Sun.	7:36	8.0	7:48	8.2	1:30	1:54
23. Mon.	8:12	8.4	8:30	8.2	2:12	2:42
24. Tues.	8:54	8.6	9:12	8.0	2:54	3:24
25. Wed.	9:42	8.5	10:00	7.7	3:36	4:12
26. Thurs.	10:36	8.4	10:48	7.2	4:18	5:06
27. Fri.	11:30	8.0	11:42	6.8	5:12	6:00
28. Sat.			12:36	7.7	6:06	7:06
29. Sun.	12:48	6.4	1:42	7.4	7:12	8:18
30. Mon.	2:00	6.2	3:00	7.3	8:30	9:30

TIDE TABLE

SEPT.-OCT 1968

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
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SEPTEMBER 6 14 22 29
OCTOBER 6 14 21 28

OCTOBER 1968

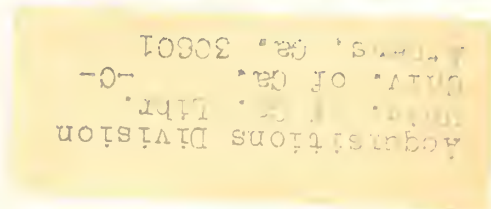
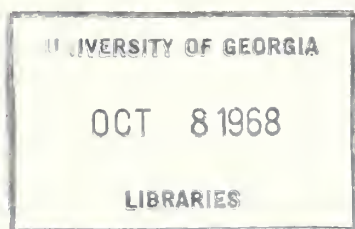
Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
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6. Sun.	7:48	8.1	8:12	7.7	1:42	2:00
7. Mon.	8:24	8.1	8:42	7.4	2:18	2:42
8. Tues.	9:00	8.0	9:12	7.1	2:54	3:24
9. Wed.	9:30	7.9	9:48	6.8	3:30	4:00
10. Thurs.	10:06	7.6	10:18	6.4	4:06	4:36
11. Fri.	10:48	7.4	11:00	6.1	4:42	5:18
12. Sat.	11:30	7.2	11:42	5.9	5:24	6:00
13. Sun.			12:18	7.0	6:12	6:54
14. Mon.	12:36	5.7	1:12	6.8	7:06	8:00
15. Tues.	1:36	5.7	2:12	6.8	8:12	9:00
16. Wed.	2:42	5.9	3:12	6.9	9:10	9:54
17. Thurs.	3:48	6.3	4:12	7.2	10:12	10:42
18. Fri.	4:48	6.9	5:06	7.5	11:06	11:30
19. Sat.	5:36	7.5	5:54	7.8	11:54	
20. Sun.	6:24	8.1	6:42	8.0	12:12	12:42
21. Mon.	7:06	8.6	7:24	8.1	12:54	1:30
22. Tues.	7:54	8.9	8:06	8.1	1:42	2:18
23. Wed.	8:36	9.0	8:54	7.8	2:24	3:12
24. Thurs.	9:24	8.9	9:42	7.5	3:12	4:00
25. Fri.	10:18	8.5	10:36	7.1	4:00	4:54
26. Sat.	11:18	8.1	11:36	6.7	4:54	5:48
27. Sun.			12:24	7.7	5:54	6:54
28. Mon.	12:48	6.4	1:36	7.4	7:06	8:06
29. Tues.	2:00	6.4	2:48	7.2	8:18	9:12
30. Wed.	3:12	6.5	3:54	7.1	9:30	10:06
31. Thurs.	4:18	6.9	4:54	7.2	10:30	11:00



GEORGIA

VOL. 3, NO. 10 / OCTOBER, 1968

GAME & FISH





GEORGIA

GAME & FISH

October 1968

Volume III

Number 10



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation.

Contents

Big Buck Bonanza!	Jim Morrison	1
Hunting's Great For Sixty-Eight	Marvin Tye	4
Big Deer Contest		7
Coyote Culprits	Dean Wohlgemuth	9
Load 'Em From The Muzzle!	Dean Wohlgemuth	11
Outdoor World		15
Sportsmen Speak		15
Sportsman's Calendar		16
Tide Table		17

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GAME LAW VIOLATORS

The Georgia Bowhunters Association offers a reward of \$50.00 to any person who furnishes information to any Wildlife Ranger or officer of the Georgia Game and Fish Commission, which results in the arrest and conviction of any person or persons involved in the illegal killing of a deer, turkey or bear during the special archery season or at a special archery hunt.



THE GEORGIA BOWHUNTERS ASSOCIATION
1401 North Clark Street
East Point, Georgia 30641



BOWHUNTERS ARE CONSERVATION CLUBS

One of the most encouraging conservation projects undertaken by a sportsman's organization in recent years is the reward program being initiated this year on a trial basis by the Georgia Bowhunters Association. The GBA is a group of almost 700 archers in 38 affiliated clubs dedicated to improving the hunting and shooting skills of their members, while educating the general public in their sport, encouraging them to take up archery.

By offering a \$50.00 reward for violators who kill a deer or turkey, or bear during the archery season and management area bow hunts, archers are doing something that benefits more people than just their own group.

At the same time, they are taking an active role in combating the destructive acts of a handful of unscrupulous violators who would poach a deer with a gun during the archery season and claim they had killed it legally with a bow. Undoubtedly, the overwhelming majority of bowhunters are law-abiding. Just a few bad apples disguised as archers could give the entire group a bad name, and result in complaints by other sportsmen to close the pre-season archery hunts.

In the past, there have been reports of such violations. Exactly how many occurred is impossible to know. Many never be revealed, but quite frequently, the number of violations of this type is exaggerated through the rumor-mill, and gets blown out of proportion. It will be interesting to see how many violators are reported and caught this year.

The reward gives added inducement to archers and any person to turn in culprits that are threatening their sport's very existence. All too frequently, violators are allowed to go unmolested by other hunters who "don't want to be a tattle-tale" or who "don't want to get involved." Such an attitude is shortsighted.

In any event, now is the time for archers, hunters, sportsmen, wildlife conservationists, and the public in general to unite and close ranks in the battle against their common enemy, the game hog—a thief in disguise.—J. M.

ON THE COVER: Back to the good days, Georgia style, with the opening of the 1968 primitive weapons hunt on the Viduan Management Area Oct. 14-19. Last year's successful hunters, complete with period clothing and beards, bagged a nice 6-point buck with a muzzleloading rifle. Color photo by Ted Borg.

ON THE BACK COVER: Can you guess what picture on the stream this is? Well, it's the Amicalola River on Georgia's border between Dawson and Tate. Incidentally, it's open for trout fishing year 'round, even though most Georgia trout streams close from 15 until April 1 of next year. Color photo by Ted Borg.

PHOTO CREDITS: Ted Borg 1, 3, 4, c. 5, 10, 11, 12, 13; Dan Keever 9; Ron Simpson t. 5; C. W. White b. 5.

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BIG BUCK BONANZA

Records fall in the first year of Georgia's Big Deer Contest

By Jim Morrison

■ Barry Hancock and Leonard Shirley are the two luckiest deer hunters in Georgia, at least at the moment.

The two young men showed their elders how last year with the first deer either one had killed. Hancock's 320 pound field dressed buck was the heaviest known deer ever bagged in Georgia while Shirley's buck carried the finest rack taken by a Georgia hunter in 1967.

Both men won a high-powered deer hunting rifle for their trophies in the first annual Big Deer Contest sponsored by Georgia Game & Fish Magazine and the Georgia Sportsmen's Federation. Their prizes will be awarded at the awards banquet of the Georgia Sportsmen's Federation at Macon on December 7.

Shirley's buck is the fourth largest typical whitetail rack recorded for a Georgia hunter, measuring 172 $\frac{7}{8}$ points by the Boone & Crockett Club system. The largest officially recorded rack from Georgia is a 184 point buck bagged the previous season in 1966 by Gene Almand of Riverdale, also taken in Newton County. (The world's record typical whitetail rack is 206 $\frac{5}{8}$.)

Hancock's monster 320 pound dressed buck is the largest officially recorded deer ever taken in Georgia, although there are unofficial reports of larger deer that were not uncovered by the beginning of the deer contest and certification program for past large kills. (The world's record whitetail weighed 402 pounds field dressed, and was taken on November 22, 1926 in Cook County, Minnesota, by Carl J. Lenander, Jr. of Minneapolis.)

Needless to say, both deer set off a wave of excitement among deer hunters in Georgia. With the opening of a new season and a fresh contest, hunters are eager to break the new records by bagging the granddaddy of 'em all—it they're lucky enough.

The experiences of Shirley and Hancock probably would lead most deer hunters to agree that deer hunting is about 90 per cent luck, five per cent skill, and live per cent being in a good place at the right time. Neither man had killed a deer before. Neither had any idea they had killed a record buck at the time.

Just 17 years old when he bagged his big rack, Leonard W. Shirley, Jr. is now



The finest rack taken by a deer hunter in Georgia during last year's season was bagged by 17-year-old Leonard W. Shirley of Atlanta, hunting in Newton County. Shirley's trophy rack placed in the records of the Boone and Crockett Club.

a meter installer for the Georgia Power Company who lives with his parents at 1716 Cecile Avenue, S. E., in Atlanta.

A slender six-foot 150 pounder with brown hair and blue eyes, Leonard is an avid hunter who first went deer hunting three seasons ago. He also likes to hunt quail, doves, and rabbits. "He's a good shot," his mother verifies. Now engaged, Shirley says his fiancée has already promised to go deer hunting with him this year!

On the morning of November 18 when he bagged the big buck, Leonard was hunting with his fiancée's father and his brother-in-law on pulpwood company land in Newton County.

"It was pretty cool and foggy with a little wind," Leonard recalls. "I sat down on my stand, but I couldn't see anything until about 7:30, when the fog lifted. My brother-in-law and my girl's dad were to my left, and I was on top of a hill.

"At about 8:30, my brother-in-law lit a cigarette, just about the time I heard something coming up out of the swamp. It sounded just like a man walking, but I got my gun up anyway, just in case.

"Sure enough, here he came running toward me. There was a ditch between us. I figured I'd let him cross the ditch before I shot him, so he'd have less chance of getting away from me. Just as he came out of the ditch, he stopped and looked toward me, then started a slow run," Leonard said.

"He was crossing at a 45 degree angle to me when I aimed at his right front shoulder and shot—it just knocked him over! He jumped up and took a big jump, then fell back down again on his left side and went around

and around in a circle.

"Quick as I shot him, I started running down there to him and pushed him into that ditch with the butt of my gun—then I started screaming, I thought. My brother-in-law said that I just had my mouth open—that they couldn't even hear me! He was so excited, he just shot into an oak tree!"

After field dressing the buck, the three men dragged him a hundred yards to the road, where they were met by about a dozen excited hunters. "One man even offered me \$100 for his head when I got him to the road," Leonard said. "But I wouldn't have taken anything for it. I was mainly afraid they'd try to stick my head in the carcass.

"That was the first'n I ever killed," Leonard proudly says. "I'd seen some before, but never good enough to shoot. I saw six or seven the first day in the same spot twice before last season, and once the year before. I don't know if I'll go back there this year or not—I know where a bigger one is somewhere else!," Leonard smiles.

He was hunting with a surplus German Mauser 98 .8 mm rifle with iron sights that he bought for \$30, along with some 180 grain rounds of soft point ammunition. He heart-shot the deer.

Shirley didn't know about the state contest, but he did take the buck into Covington to be weighed in a local contest. The buck dressed out at 186 pounds, 15 pounds under a deer that had already been entered.

"I was really glad to hear about your contest," Shirley said, "so I took the head up to the Capitol and Mr. Jack Crockford measured it for me."

Estimates vary, but on the hoof, Shirley's buck probably weighed from 232 to 238 pounds. Dyed-in-the-wool trophy hunters couldn't care less about its weight, with a rack over the 170 point minimum of the Boone and Crockett Club.

But for laymen who don't understand the finer points of judging and scoring trophy racks, the greatest amount of excitement was probably generated by the 320-pound buck bagged by then 22-year-old Barry Hancock of Thomaston, a business administration major at Georgia Southwestern College at Americus.

A strong 210-pound six-footer, the black-haired, green-eyed Hancock was president of the Thomaston Archery Club last year. While bow hunting during Upson County's first deer season in recent history, he spotted the track of an extraordinarily large deer. Although he saw several deer in the area too far away for a shot, he didn't see the big buck.

On the opening day of Upson's first gun deer season November 4, Hancock

went back to the same area with his brother Barney, an Army major who had just returned from Vietnam.

"I didn't much want to kill a deer that day," Barry recalls. "I was most interested in my brother killing one. We got on our stands about 6:30. It was cold, windy day. After a while, I decided I'd get up and stalk around a little and run one over my brother if I could. You know deer don't move much on a windy day," Barry said.

"Since my brother was up-wind from me about a hundred yards, I started walking with the wind—I know I was against all the rules. I was wearing a camouflage suit, since there weren't any other hunters on the property.

"I came up on a pine thicket, where I heard one snort and stomp off. I went down right there and waited for him to come back and see what I was, since it was the rutting season," Barry continued.

"Pretty soon I heard him grunting like an old hog, coming down an old ditch. I stood up just before he came out of the ditch about 65 yards away, giving me a broadside shot. I figured I better take it!

"I got off one shot—the deer flinched—I figured I had him—then he began running! He ran right to me and came within 15 feet of me before he turned and went the other way. I shot him again two times in his rear end, but he just kept on running!

"I tried to track him, but there was no blood trail—just a little meat on the ground where I had hit him. About the time I had decided to get some help to look for him, I walked back to my stand to pick up my jacket 70 or 80 yards away, and there he was, lying right beside my jacket!"

For Barry, that was when the war really began. Getting down on his knees, he tried to move the big deer without any success. "Finally, I wrestled him up beside a tree to dress him. My brother helped me, and then we pulled him out to the road, a few feet at a time. It took us about an hour to carry him a hundred yards, up an incline."

Then Barry carried the record buck to L. O. Fowler's Grocery in Thomaston, where it was weighed on Fowler's Chatillon hanging balance scale, used to weigh meat carcasses. The scale bears the inspection seal of the State Department of Agriculture, and is legal for trade purposes. It can weigh up to 500 pounds.

More than a dozen or so witnesses saw the weighing, including Fowler and some of his employees at the time. Frank Wheelless. Later, wildlife ranger Herman Truelove inspected Fowler's scales and verified their accuracy.

Hancock has hunted deer about a

The heaviest officially recorded deer ever killed in Georgia was shot by 23-year-old Barry Hancock of Thomaston, hunting in Upson County. The record buck field dressed at 320 pounds, and probably weighed over 400 pounds on the hoof.





Shirley's trophy was scored by Game and Fish Commission Assistant Director Jack Croekford, who is the principal official measurer for the Boone & Crockett Club in Georgia. Most hunters would describe Shirley's buck as a 12-pointer. Under the complicated Boone & Crockett system, the rack scored 172-7/8 points.

ears with the bow and the gun, primarily in Georgia and Alabama. He shot at a deer, but missed it.

"My first shot must have been deflected by some little pines," Barry says. "I never looked at the rack too much until I downed him, then I was amazed. I've never seen anything like it in my life! It looked to me that his rack would have hindered his running, but it didn't. It was something like a dream—I never expected to run up on something like that in the woods. I've never seen anything with so many horns on deer. It is just like a child with a new toy!"

Unfortunately for Barry's rack measurements, one of his trophy buck's antlers on the right side extends downward approximately a foot, ruining his qualifications under the Boone and Crockett system, which favors more "typical" symmetrically formed racks, as well as size. Hancock's rack measured 124 1/8 points under the typical formula, with a non-typical score of 147-24/8 or 171 7/8 points (The world's record non-typical rack is 286 points).

Although he hunted deer several times after killing the big buck without getting another shot, Barry didn't go back to the same spot. "A lot of people tried to go there and take advantage of the owner's private property," Barry said. "They didn't have permission, and it caused him a lot of trouble."

Like Shirley, Hancock says he knows

of an even larger buck, but he won't say where, either! But game biologists of the Commission feel that the largest deer in the State are along the Flint River in newly opened counties that were stocked with a large substrain of Wisconsin deer that have not yet lost their original characteristics. Barry's buck may have been part of the original stocking, or a first-line descendant.

There is no public hunting land in either Upson or Newton County, although pulpwood company land is found in both. Most companies don't like hunters going on their property, but some allow it anyway, with permission from the nearest company office. Georgia law requires that hunters and fishermen have permission from the landowner, regardless of whether the land has posted signs or not.

Two of the Commission's game management areas have trophy bucks: Oaky Woods near Perry, and Piedmont Experiment Station near Eatonton.

Hancock used a Marlin .30-30 lever action rifle with Federal 170 grain soft-point ammunition to fell the buck, which was heart-shot, even though the bullet entered the deer from behind.

Exactly how much Barry's buck weighed on the hoof is impossible to tell. A rule of thumb used by game biologists is to add one fourth of the dressed weight to determine the live weight, adding 80 pounds to 320 for a

total of approximately 400 pounds live weight! (To find the dressed weight from the live weight, subtract one fifth.) Another method is to add 28 per cent of the dressed weight, which gives a figure of 409 pounds. Neither rule is foolproof, however. And since the deer's jawbone and teeth were diseased by the taxidermist, there is no way to determine how old the deer was. Estimates range from 3 1/2 to 5 1/2 years in age.

Antler measuring for the contest was done by Game and Fish Commission Assistant Director Jack Croekford, who is an official Boone and Crockett Club measurer. Only racks that were obviously contenders for the top prize were remeasured by Croekford, who is one of the three judges of the contest. The other two are the president of the Georgia Sportsmen's Federation, Jim Adams, and the editor of *Game and Fish Magazine*.

Hunters would do well to follow Croekford's admonishments about weighing their deer: not to be offended if the validity of their claims are examined. "Deer are like fish," Croekford says, "they tend to get bigger in the telling!"

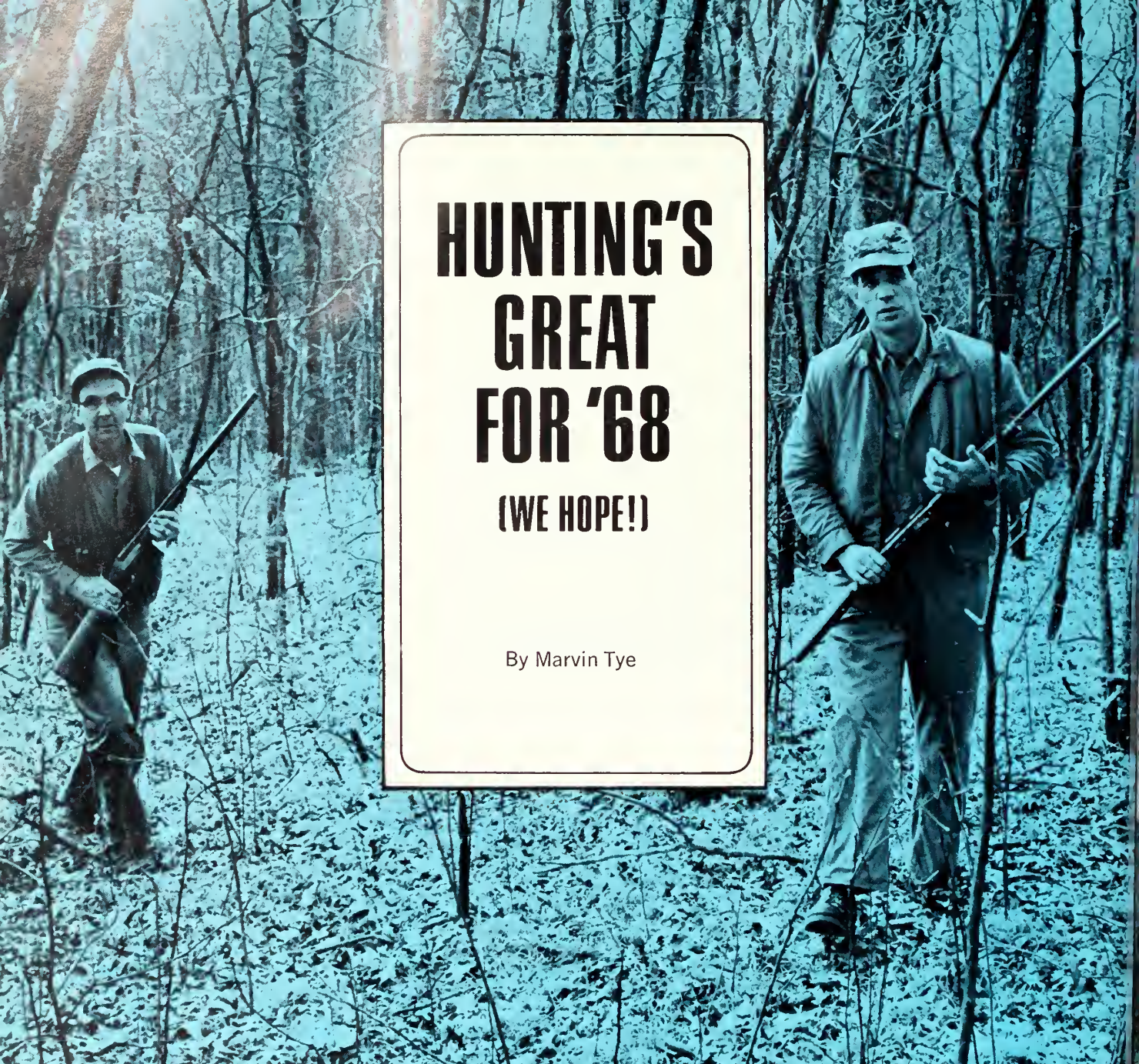
Croekford advises hunters to not follow the example of one hunter who called him up in the middle of the night raising Cain because a deer larger than his had been reported in the news media. "He had already cut up the deer, so he weighed the meat on a bathroom scales. Then he went to the taxidermist and weighed the skin and head, and added them all up!" Croekford smiled. "Another fellow entered a head he had killed two years ago and said he killed it this past season."

The contest rules specifically say that deer must be weighed in one piece after field dressing, which includes removal of the heart, liver, and lungs, as well as intestines. The hide, head, and legs must still be attached to the carcass. Weighing must be done on a balance type scales acceptable for trade purposes such as meat or cotton scales.

Twenty deer were entered in either the antler division or the weight division, including several deer from previous seasons entered for certification only as records. Certificates are given to any hunter from any past season with an authenticated kill of more than 200 pounds field dressed weight or rack of 150 typical or 175 non-typical points, Boone and Crockett.

Extra entry forms are available from the Game and Fish Commission's Atlanta office, wildlife rangers, affiliated clubs of the Georgia Sportsmen's Federation, and recognized Big Deer Contest weighing stations.

Who knows... maybe there's a world's record Georgia whitetail out there somewhere... waiting for you!



HUNTING'S GREAT FOR '68

(WE HOPE!)

By Marvin Tye

WHAT'S ABOUT THE
GAME FOR GEORGIA HUNTERS?
THE ANSWER IS
PROBABLY NOT GOOD
UNLESS YOU'RE A DEER SPECIES.

■ According to the Georgia Game and Fish Commission's wildlife management personnel, hunters in the Peach State should be able to enjoy one of the finest hunting seasons to come their way in many a moon.

The deer herd seems to be growing in number. Dry weather has helped to reduce the mortality rate on quail and insured that the hunter will have a greater number of feathered targets than normal in some areas. Indications are that the dove population will be as good as last year. Squirrel and rabbit populations are at least holding their own and seem to be increasing in some areas.

Hubert Handy, Chief of Game Man-

agement for the Game and Fish Commission, says that the trend for the deer kill for the past few years has been for a one percent to two percent increase each year. Twenty percent of the deer killed last year came from the North Georgia mountains. Thirty-seven percent were taken from the Piedmont and nine percent from Southwest Georgia and the remaining 34 percent from Southeastern Georgia, especially Forsyth and Stewart.

In addition, 125 of the state's 159 counties are open to deer hunting this year. Nine counties or portions of counties which have been closed for several seasons are open this year. These counties



1968 is expected to be an unusually good year for quail hunters. The nesting season was very successful, due to a decreased amount of heavy rains during the winter and early spring.



Rabbit hunting is still poor in most of Georgia. The best hunting will be along the Georgia coast.



Squirrel hunting prospects are poor, due to a poor mast crop in North Georgia. South Georgia is the best bet.

ties are Gwinnett, Forsyth, Troupe, Heard, Colquitt, Lanier, Ware and Telfair. Each of these should have good hunting with the added bonus of a chance at a big buck in an area that has not been over-hunted.

Handy says the mountains have a good deer population but are a difficult area to hunt. He rates Rabun, Towns, White, Lumpkin and Fannin as the top counties for deer hunting in North Georgia. In the Piedmont, he favors Jasper, Jones, Butts, and Putnam as the top counties with those counties bordering them ranking almost as high. In the Southeast, he says that the counties bordering the Savannah River and those bordering the coast are superior to those further in the interior.

The finest quail hunting in the state, according to Handy, is in the Southwestern counties — Decatur, Grady, Colquitt, Brooks, Lowndes, Mitchell, Dougherty, and Worth. He says that the quality of the quail hunting decreases as the hunter moves north. Unfortunately, there are few areas open to the public for quail hunting in Southwest Georgia. Fairly good quail hunting is found in the agricultural land around Macon, with decreasing numbers of quail to the north. The Piedmont area also produces fairly good quail hunting with the poorest quail hunting to be found in the mountains. Quail hunting in all sections of the state should be as good as could be normally expected, with the decline in farmland habitat.

Rabbit hunting is expected to be good in South Georgia. North Georgia

rates a poor second as a cottontail hunting section.

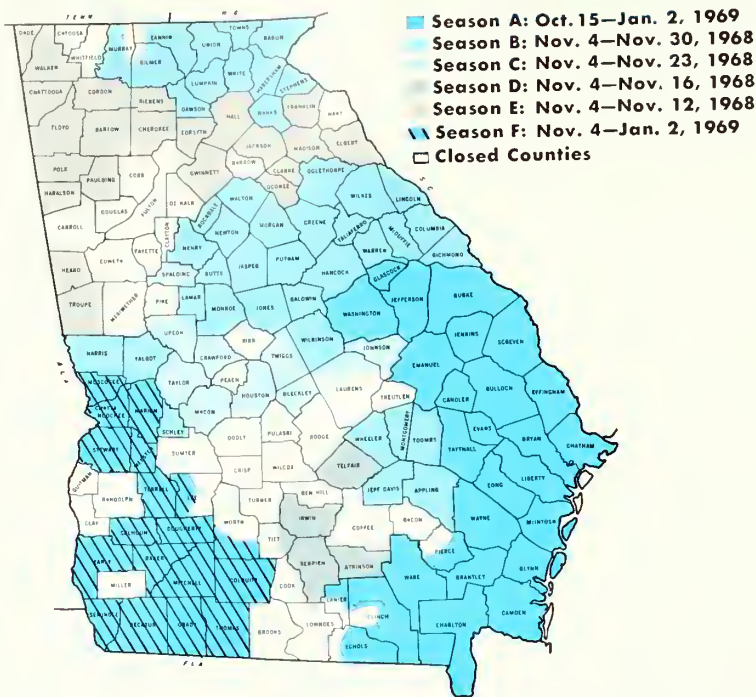
Squirrels are not overly abundant in North Georgia. Handy blames this fact on a poor mast crop. The hardwood forests of the Piedmont are expected to yield good squirrel hunting. Squirrel hunting in South Georgia will be more limited because of the predominance of pine and a smaller number of hardwood trees. Hunting in hardwood patches should be good.

Middle Georgia Game Management Supervisor Dick Whittington agrees that this should be one of the finest years for deer hunting in Georgia's history. He claims that deer herds are now expanding into areas where there were no deer before. In his section of the state, two new counties will be open for deer hunting this year, Troup and Heard. Dick believes that the Oaky Woods Wildlife Management Area will probably offer the best deer hunting of any management area in his section of the state. He also believes the Piedmont Experiment Station Area will offer good hunting for big racks.

Dick says that the unusually dry conditions of the past year have helped the quail population to build up to a large number. Heavy rains and low temperatures can cause death to young quail by drowning or freezing.

Doves are abundant in Dick's section and he believes this will be one of the best years for dove hunting in a long time. The rabbit and squirrel population seem to be about the same as usual and should offer good hunting.

DEER SEASON



Sid Painter, Waycross District Game Biologist, says the deer population on the Suwanoochee Management Area is healthy and abundant and should provide good hunting. Parts of Lanier County will be open for the first time and should offer good deer hunting. Other top counties for deer hunting are Echols and Clinch. The Arabia Bay area will be open for its first deer hunt this year and should be a good bet.

Although the Waycross Management Area was open for deer hunting last season, it was only lightly hunted due to heavy rains during the period when it was open. That area will offer almost virgin deer hunting this year. Hunters might even bag a bear there this year—the first time bear have been legal game on a state management area. If last year's hunter success is any indication of this year's results, the Chickasawatchee Area should be a winner. Hunters bagged 147 bucks there last season.

Painter also says that there is a heavy population of rabbits in his district, a fair population of squirrels, a fairly good population of doves, and that quail are fairly abundant.

Oscar Dewberry, Coastal Region Game Management Supervisor at Darien, says that the deer hunting in this area should be as good if not better than it was last year. The Brunswick Pulp and Paper Company Area will be open to the public for the second time and should provide some good hunting. The area is open from October 14–19 and from November 4–January 2. Firearms users with specified

days on certain portions of the area reserved for hunting with dogs only. No other game can be taken during these hunts. With the exception of the deer hunting with dogs, no permits or checking in or out are necessary. Any small game in season can be hunted.

Oscar believes the quail hunting should be better than last year, with the best hunting in Tattnall, Wayne, and other inland counties. According to Dewberry, the rabbit hunting should be good this year; turkey hunting in Camden County should be good; squirrel hunting should be good; and hunting for waterfowl and marsh hens should be about the same as last year.

According to James Scharnagel, wildlife biologist in the Game and Fish Commission's Gainesville office, a good population of deer is located in his district. Hall, Gwinnett, and Forsyth counties will be open for deer hunting for the first time this season and should produce good hunting.

Jim reports that the dry North Georgia hills will be a poor area for the raccoon hunter. Rabbits, quail, and squirrel are also said to be found in small numbers. Dove hunting is expected to be about average this year.

October is the month for bowhunters to begin pursuing deer all over Georgia. Firearms users will get their chance to hunt the wily bucks in some Southeastern counties on October 15. Primitive weapons users will be able to hunt the Warwoman area October 14–19. Dove season began September 7, closing October 5. Grouse season starts in October

and opening dates for other species during the next two months. For more detailed breakdown of Georgia hunting seasons, see the calendar page of this issue.

For those of our readers new to hunting, especially for deer, it should be kept in mind that hunting on the property of another is legal only with the landowner's consent.

It is now illegal to hunt non-game species with any weapon other than shotgun with #4 shot or smaller, rimfire rifles, centerfire rifles with bullet diameter of .225 or smaller, all caliber pistols, muzzle loading firearms, bows and arrows.

Other regulations pertaining to hunting are printed in the Game and Fish Commission's hunting and fishing regulations booklet and its booklet on management area hunting. These can be obtained at no charge by writing Game and Fish Commission, 401 State Capitol, Atlanta, Georgia 30334.

Know the law, practice firearms safety, bow-handling safety, and have a good time. This hunting season should prove to be a fine one.

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 drawing in advance of the hunt. For details on each area, consult the directory.)

PRIMITIVE WEAPONS (EITHER SEX)

Dates	Areas
Oct. 14-19	Warwoman
Nov. 22-23	Chickasawatchee
Dec. 16-21	Piedmont Exp. Station

ARCHERY (EITHER SEX)

Dates	Areas
Oct. 1-14	Brunswick Pulp & Paper Co.
Oct. 14-19	Clark Hill, Blue Ridge
Oct. 21-26	John's Mt., Lake Russell
Nov. 7-9	Suwanoochee

BUCK ONLY

Dates	Areas
In Season	Altamaha and Lake Seminole
Nov. 4-Jan. 2	Brunswick Pulp and Paper Company (Special regulations apply to each tract of this area. See special section in this brochure for details.)
Nov. 18-23	Arabia Bay
Nov. 25-27	Allatoona (QH 400)
Nov. 25-30	Blue Ridge, Bullard Creek, Chattahoochee, Chestatee, Coleman River, John's Mt., Lake Burton, Lake Russell, Oak Woods, Swallow Creek, Warwoman
Nov. 25-29	Cedar Creek, Clark Hill, Piedmont Exp. Station
Dec. 2-7	Waycross State Forest
Dec. 6-7, 13-14	Chickasawatchee (QH 300 each 2 days)
Dec. 16-21	Suwanoochee (permit required, no fee)

ANTLERLESS ONLY

Dates	Areas
Dec. 2	Blue Ridge (QH 500) Chestatee (QH 300), Lake Burton (QH 300), Coleman River (QH 300)



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	205½ 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**, 401 State Capitol, 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.

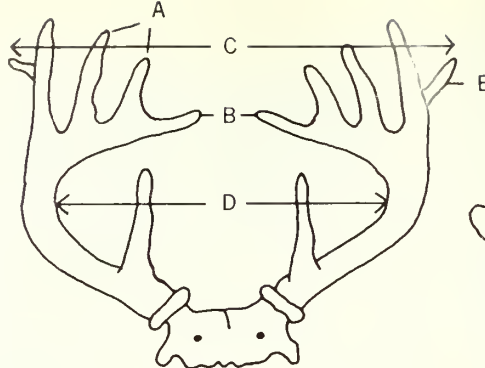
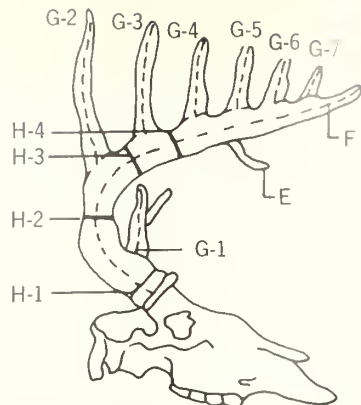
D. Inside Spread of Main Beams measured at right angles to the center line of the skull at widest point between main beams. Enter this measurement again in "Spread Credit" column if it is less than or equal to the length of longer antler.

E. Total of Lengths of all Abnormal Points. Abnormal points are generally considered to be those nontypical in shape or location.

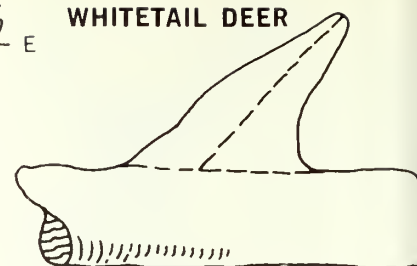
F. Length of Main Beam measured from lowest outside edge of burr over outer curve to the most distant point of what is, or appears to be, the main beam. The point of beginning is that point on the burr where the center line along the outer curve of the beam intersects the burr.

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		Column 1	Column 2	Column 3	Column 4
	R.	L.	Spread Credit	Right Antler	Left Antler	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						
Circumference at Smallest Place						
H-1. Between Burr and First Point						
Circumference at Smallest Place						
H-2. Between First and Second Points						
Circumference at Smallest Place						
H-3. Between Second and Third Points						
Circumference at Smallest Place between Third and Fourth Points or half way between Third Point and						
H-4. 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 _____

Time of day animal _____

Performance _____

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 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, 401 State Capitol, Atlanta, Ga. 30334.



Coyotes illegally stocked in Georgia have now spread into more than 20 counties of central Georgia. Rabbits, rats, and mice are the chief prey of coyotes, but they aren't above eating chickens, pigs, calves, or fawns.

COYOTE CULPRITS

By Dean Wohlgemuth

In the headlights of my car, the gray form flitted out of the shadows, crossed the road and dashed through an open gate into a field.

Just a youngster in my late teens and eager for excitement in nearly any form, I slammed on the brakes, whipped the car through the gate, gunned the motor, and gave chase.

Surprisingly, I kept the car on the tail of the coyote longer than I should have. The field was small and fenced with hogwire. Each time the coyote hit the wire, he'd bounce back and have to run parallel to the wire once more. Finally he found a hole, and a chase of perhaps ten minutes was over.

Traction hadn't been the best in the world for my car, but the old bus had responded valiantly to my urging, and the speedometer needle rocked at 45 and 50 miles per hour. Slippage of the wheels probably made the speedometer register somewhat higher than actual speed . . . nonetheless the coyote gained ground on me.

On occasion, I hunted coyotes more traditionally in my native Kansas, a state where this predator animal is so common he's a genuine nuisance. Hunt-

ing there takes one major form, with perhaps only one real alternate. Hunters with coyote hounds loaded into dog trailers, travel the open spaces at night, shining spotlights around in hopes of locating the quarry. Once spotted, the dogs are released, and ears give chase, either on roads or through fields. Sometimes shortwave radios are employed to help follow the dogs in races that may last a great many miles and several hours. More often than not, however, the coyote is the winner. And even though there is an abundance of coyotes in that country, you certainly can't count on spotting one on each outing.

Another variation in hunting is that hunters go in daytime rather than night, with at least one small airplane flying low, to spot the coyotes. The pilot radios to hunters on the ground, who drive to the area and release the dogs. Then the plane holds as close as it can to the area, trying to keep an eye on the coyote. Some airplane hunters have shotguns mounted in the aircraft and shoot coyotes from the air.

Yet, the only effective means of killing coyotes in the Western plains still seems to be the cyanide boobytrap gas

gun, which can be dangerous to other animals, and to persons.

This summer, I went coyote hunting again. But this hunt was completely different. First of all, the difference was in the country. Instead of wide open, flat plains, I was hunting in heavily wooded country. There was no use in employing dogs, if I could have found dogs trained for that specialty . . . which I couldn't. Speedy dogs used in the prairies wouldn't have had a chance in timber. And slower trail dogs would have been left miles behind in no time.

Then how in the world could I hunt them? Frank Parrish, regional game manager for the Southern Region for the Game and Fish Commission, thought he had the answer.

So, equipped with cameras, shotguns loaded with buckshot, electric lanterns and a predator call, we went into the woods of the country around Fitzgerald, in the Ben Hill County Ocmulgee River bottoms.

Stops were made at perhaps a dozen places in the county where coyotes had been reported. The hunt lasted well into the night. Frank worked hard on the call, but not a single coyote, or even a

fox or raccoon did we see.

What did all this prove? Well, maybe that at least the coyote population in South Central Georgia is not so high that we were stampeded by them. Actually, the only thing proved was something that I learned long ago. A coyote is a loner. He's shy about letting his whereabouts be known. He's there, but your chances of seeing him are mighty slim.

Yet, reports of seeing coyotes come in frequently to the Bowen Mill Office of the Game and Fish Commission at the Fish Hatchery near Fitzgerald. Farmers and wildlife rangers say they see them quite often.

An area of some 10 counties now have established populations of coyotes. These include Irwin, Tift, Turner, Crisp, Ben Hill, Wilcox and Coffee counties, with some in portions of Bleckley and Pulaski counties.

Also, coyotes are reportedly to be found in middle Georgia, around Jasper, Monroe and Butts counties.

It's possible that many, many years ago, coyotes could have roamed Georgia. Buffaloes did. But in recent decades, the Mississippi River was considered a natural barrier to the coyote, keeping him west of that point, limited to the Western prairies.

However, coyotes have appeared in Georgia. Evidence points to a few fox hunters who sought a newer, more exciting animal for their dogs to chase. Numerous reports reached the Game and Fish Commission that groups of hunters were importing coyotes from the West. This is highly illegal. Game management should be left in the trained, qualified hands of game biologists, rather than assumed by ignorant individuals.

The coyote apparently made a very poor substitute for foxes, because fox hounds couldn't keep up with them, and the dogs couldn't trail the wily animals. As a result, coyotes established themselves well in Georgia.

Earliest reports of coyote stockings date back to the early 1940s, but apparently they were brought in on several other occasions, the most recent reports being within the past couple of years or later.

Just what impact the coyote has in Georgia is indeed a difficult question to answer. Many theories could be ventured. Few can be well supported with

On occasion, groups of livestock producers angrily blame the coyote for livestock losses. Perhaps these reports are true. However, it is extremely difficult to catch a coyote in the act, especially at close range. To get a good look at the culprit, it is likely that some kills blamed on coyotes actually were

committed by wild or free running dogs . . . and vice versa. A person may have difficulty distinguishing a coyote from a dog, especially at the distances a coyote would likely be seen. And it is indeed rare to see a coyote in full daylight. He's a night hunter, and may move some at dusk or dawn, but usually keeps well out of sight in broad sunlight.

This trait, of course, makes it all the more possible that the coyote may be the culprit in some killings and never be detected.

A coyote's diet cannot principally be considered livestock. His chief foods are rabbits, field rats, birds, mice, and grasshoppers and, where available, prairie dogs. He is seldom if ever abundant where there is not also an abundance of rabbits or other small mammals.

That he sometimes kills small pigs, calves, and probably quite a few chickens, if he can get to them, is a known fact. In deer country, deer fall prey to this predator, especially the fawns.

The coyote is cunning, and is capable of killing cattle and large game animals. While not pack animals by and large, occasionally a pair of coyotes will team up on kills.

A favorite trick of Western coyotes is for a pair to approach a prairie dog town, making no effort to hide their presence. Once the coyotes are seen, the

prairie dogs go into hiding, but soon curiosity overcomes them and they have to look to see if the coyotes are still around.

One coyote is still there, but the other has sneaked around to the other side of the colony. The remaining coyote, in plain sight and at a safe distance (for the prairie dogs) begins a series of tricks and amusements, chasing his tail), rolling over on the ground, and generally keeping the dogs busy watching the entertainment. Meanwhile, the mate sneaks up behind the prairie dog, and snatches an easy meal.

But what real effect does the coyote have on livestock and game in Georgia? It's highly unlikely that anyone can give an honest answer to this question. You can't convict a killer on the lack of in-the-act eye witness evidence he'll leave. Probably he takes a certain toll, but how much is impossible to estimate.

Perhaps only time will tell. And if, in 20 or 30 years, perhaps more, perhaps less, if the coyote becomes so prominent as to be a real threat to stock and game, he may be so prevalent that there will be little that can be done to eliminate him. Trapping, bounties, poisons, shooting, and hunting have all failed in the West.

Chances are, that however he goes here, the coyote has become a permanent resident of the Peach State, wanted or not.



Game and Fish Commission game biologist Charlie Marshall examines a coyote killed by a Walton county farmer protecting his chickens, about 30 miles east of Atlanta.

LOAD 'EM FROM THE MUZZLE!

By Dean Wohlgemuth

■ Shades of Dan'l Boone and Davy Crockett! So you've bought yourself a muzzle loader, and you're figuring on giving it a try on deer this year?

Well, if you don't know where to begin with that long gun, it's high time you started learning a few things. And brother, you've got a few things to learn about those muzzle loaders. They're a good bit different from that nice, new automatic resting there on your gun rack.

Let's hope, first off, that when you plunked down that hard-earned green stuff for your fancy traditional piece, that it actually was a good rifle. If you're not a good enough judge of old style weapons to tell, take it to a pro, a muzzle-loading gunsmith with a good reputation. If there's doubt about the quality of your arm, have it rebuilt or chalk it up to experience and get a better one. And when you do, make sure that beautiful old piece is .40

caliber or larger for deer hunting. If it isn't, it's illegal for deer hunting in Georgia. Better yet, make it .45 caliber or larger, so there's less chance of getting a cripple.

One more tip along these lines . . . remember when you shoot that it is a muzzle loader, shooting black powder only, and not as mighty as that new auto, lever, pump or bolt. Pick your shots carefully, not going for heavy muscle or bones, but go strictly for the vital spots where the ball can penetrate. You only have one shot, you know, and it must be good.

Now, lest we go too far in this article without giving proper credit where it's due, the words of wisdom herein are really not the brainchild of this author. They're the result of careful coaching under the watchful eye of a master in the art of making and shooting muzzle loaders, Jack Croekford, Game and Fish Commission assistant director. Game

Surrounded by black powder smoke, Bill Croekford holds a steady bead on his target. The flintlock, which Bill is shooting, pours out plenty of smoke from both ends.



1. Some of the necessary ingredients for happy muzzle loading hunting: a hunter's bag, in which will be stored such items as balls and patching, a tin of tallow or shortening to grease the patches, caps if you're using a caplock. On the thongs attached to the shoulder strap: a short-and-



long starter, powder measures, and a loading block. The loading block holds balls already wrapped in a greased patch, ready for starting down the barrel. If using a flintlock, you'll need a second powder horn for finer powder in the flash-



2. Filling the brass powder measure, which may be an empty cartridge case, is the first step. Pour powder from the horn into the measure, then from the measure into the barrel.



3. Place the ball on top of the strip of greased patch material on the muzzle. To grease the patch, run the end of the strip in the tallow or Crisco.



4. Using the short starter, press the ball down just flush with the muzzle.



5. Hold the patch material with one hand, then trim it off at the muzzle with a sharp patch knife.



6. Now the long starter gets the ball enough down the muzzle for the ramrod to take over.



7. The ramrod, which attaches below the barrel of the rifle, pushes the ball down to the powder. Jack Crockford's expression proves it takes firm pressure to seat the ball against the powder.



The cap is fitted into the nipple. Using a strip of leather to hold a supply of caps makes the job easier, particularly with cold fingers. Once on the nipple, the cap is seated firmly by pressure of the thumb or the hammer against the cap.



In priming the flintlock, fine powder is poured from a separate horn into the flash pan and into the touch hold (vent).

he has felled with either a caplock or flintlock has graced more than one dinner table . . . many more.

Loading the flintlock and caplock rifle has much in common. The difference, obviously, is that a cap is used to fire the charge in the caplock, whereas the flintlock uses a piece of flint striking a steel plate with the ensuing sparks igniting powder in the flashpan which in turn ignites the powder loaded inside the barrel.

Loading the powder and ball into both rifles is the same operation. We'll start first with the caplock, then later detail the difference as it applies to flintlocks.

Before seriously loading for actual hunting or firing, you'll need to go through these preparatory steps. Wipe the barrel to clear out the oil, using a patch. Fire a cap or two, without powder in the barrel, holding the muzzle near a leaf or blade of grass. The puff of air should visibly move the grass indicating the barrel and nipple are open (The nipple is the fitting over which the cap is placed, with a small hole which must be open to the inside of the barrel where the shot and charge will be. This tube is called the "drum.")

Now, load a charge of powder with a patch above it, but without the ball. Using a cap, fire off this charge. If it fires, you're ready to load for business. If not, using fine powder such as 4fg, poke the powder into the nipple with a pick and try again. If that still doesn't clear it out, remove the nipple and pour the powder into the drum, replace the nipple and try again. This should solve your problem.

Making sure the nipple is properly in place, you are now ready for business. Load immediately to prevent the black powder from attracting moisture. If you're not yet quite ready to shoot, particularly in wet weather, you should place a small strip of leather or rubber on the nipple, without a cap, and close the hammer on it to prevent moisture from entering.

To start actual loading, your first step is the powder. Use 2fg or 3fg black powder for hunting loads in rifles of .40 to .60 caliber. Never, absolutely never, use smokeless powder.

Don't be too stingy with powder. If in doubt, for hunting loads, use more powder. Don't load too light. Target loads won't do. Minimum hunting loads should be 60 grains for .40 caliber, 70 grains for .45 caliber and 90 grains for .50 caliber. Three rules of thumb for proper loads are :

1. Cover the ball in the palm of your hand with powder.
2. Three grains weight of powder for each seven grains of ball weight.
3. One and a half times the caliber for up to .40 caliber (1½ times 40

equals 60 grains of powder); twice the caliber in grains of powder for over .40 caliber (if .50 caliber, two times 50 equals 100 grains of powder.)

Make sure, before starting, you have all the necessary ingredients. Beside having powder, balls and caps, you need some patching material. Indian head cloth is one of the favored materials. It should be torn in strips a little more than an inch wide.

Tools you'll need include a short and long starter, which can be the same tool with a common knob. A shaft of four or five inches from the knob will serve as the long starter.

You should also have a powder measure, a powder horn, a shoe polish tin or small jar of tallow or solid shortening (to grease the patches), a sharp knife to trim the patches, and of course, the long ramrod, which should be a part of your rifle.

As you progress, you'll want other accessories, some which can very well be made by yourself, such as a loading block to hold balls and a small strip of leather punched with holes the size to securely hold a few caps to facilitate reloading quickly.

To avoid trapping air in the barrel, place the lock at half cock. Pour a charge of powder into your brass powder measure (which can be an empty shell case), then pour the powder into the muzzle.

Make sure the small flat side of the ball is on top before starting it into the muzzle. Lay a greased patch on the muzzle and carefully center the ball and start it in the muzzle with the short starter. Trim the patch flush with the muzzle with a sharp patch knife. Then push the ball deeper using the long starter with one sharp blow with the heel of your hand. Don't peck at the long starter, to prevent deforming the ball, thus affecting accuracy.

Now, take the ramrod and push the ball onto the powder with a gentle push. Seat the ball against the powder with a firm but steady pressure, without pounding it.

Place the cap on the nipple. If you use the cap strip, you can put the cap on the nipple while it's still in the strip, then press it out directly onto the nipple. Close the hammer gently onto the cap, then press the cap on firmly by pressing your thumb on the hammer. Now you're ready to shoot!

There are three major ways a muzzle loader really can get in trouble without much effort: if he uses smokeless powder instead of black powder, if he smokes around black powder, or if he fails to get the ball deep enough into the barrel to seat it against the powder charge. A ball stuck midway down the barrel will probably ruin the rifle when shot out, not to mention the shooter.



Larry Hunter of Hiram, Ga., bagged this nice four-pointer on the Warwoman Primitive Weapons Hunt in the 1957 season with a Hopkins and Allen muzzleloading buggy rifle. Three primitive weapons hunts will be held on State management areas this year: Warwoman, Oct. 14-19; Chickasawhatchee, Nov. 22-23; Piedmont Experiment Station, Dec. 16-21.

To prevent getting a ball stuck halfway down, it pays to clean the rifle the field between every few shots. If you notice you have difficulty in getting a ball down the barrel, clean the barrel before loading another round. To clean simply use a patch and liquid household detergent, wipe dry, then oil the barrel thoroughly with rust inhibiting oil.

With the flintlock, instead of using a cap, you pour 4fg black powder, kept in a separate powder horn, into the flash pan. When it ignites, it sets off the charge through the touch hole.

Before starting, wipe oil from the barrel, vent, pan, frizzle and flint. Pour a charge of powder into the barrel, prime it, and fire without a ball to burn the oil out of the barrel. A good way to keep the vent or touch hole clear is to keep a pipe cleaner in it until ready to prime.

Larger charges may be used in flintlocks, since some powder may be lost through the open vent.

Rainy days are not the days to use a flintlock. Since black powder residue attracts so much moisture, the powder in the flash pan may easily become wet, thus preventing firing. Even if it does fire, there may be a long time lag before it actually sets off the charge.

Even in dry weather, there is a noticeable time lag from the time the hammer falls, the priming powder ignites, then the main charge goes off. Therefore, it is necessary to be very careful to follow through on all shots. Keep those sights on game after pulling the trigger!

And be sure to use sharp, clean flint in order to produce good sparks.

When the shooting is over, clean your rifle thoroughly to prevent corrosion. Black powder residue will rust a barrel badly. When through cleaning, oil the gun liberally, inside and out with rust inhibiting oil. Check it again in a day or two with a clean patch, and re-oil.

Good care of the gun and care in shooting should give years of pleasure and open new avenues of old-time traditional sport!

Biological Survey Begins Ogeechee River

Five white styrofoam floats, each supporting a subsurface basket of rocks, have been placed at strategic intervals in the Ogeechee River as part of a new phase in Georgia's expanding water quality surveillance program.

The floats, labeled "Pollution Detector — Georgia Water Quality Control Board", are built to collect various stream life organisms for subsequent biological laboratory analysis. Mayflies, stoneflies, crayfish, leeches, and other arcoinvertebrates attach to the rocks. Depending upon the presence or absence of certain species in a collection and the ratio dominance of one species to another, biologists can determine the relatively long-term quality of water in a stream.

According to J. Leonard Ledbetter, director of the Board's Water Quality Survey's Service, additional floats will eventually be situated on other major Georgia streams. Most of these devices will operate in conjunction with continuous and automatic monitoring stations which will collect other stream data—water temperature, water clarity, the degree of dissolved oxygen, etc.

"When we are able to correlate biological data with the automatically recorded measurements, we will have a total and continuous picture of stream quality in several major basins throughout the State," explained Ledbetter. "At present we often discover an adverse change in stream quality too long after the fact to prevent the damage. As biological sampling coupled with continuous chemical and physical measurement of stream water becomes more prevalent, we'll have the knowledge to deal with problem areas much more quickly."

"We realize that, at first, the styrofoam floats are going to be a curiosity. Fishermen along the Ogeechee River can help us get good samples if they refrain from lifting these floats out of the water. It takes about six weeks for a representative sample of organisms to collect. However, if a basket is lifted above the water level without appropriate safeguards, much of the sample will be lost. We feel that, realizing this, people will want to cooperate with the program by not tampering with the floats."

Wild Dog Committee Named; Hearings Set

■ House Speaker George L. Smith has named seven members of the General Assembly to a special wild dog study committee.

The committee is authorized under the resolution setting it up to investigate damage done by wild or uncontrolled dogs to agriculture, wildlife, and public health, and to make a recommendation for correction of any problems found to the next session of the General Assembly in January.

The committee has already held two public hearings on the problem at the State Capitol in Atlanta and at Valdosta, and plans to hold a hearing at Ringgold on October 8, at 11:00 a.m. in the Courthouse. A second Atlanta meeting will be held on a yet to be determined date.

Game and Fish Commission Director George T. Bagby has made the services of his Department fully available to the members of the Committee, and has urged sportsmen and other individuals and organizations concerned with the problem to express their views at the public hearings or by personal contact with the members of the committee through cards, letters, telephone calls, and personal visits.

"The problem of uncontrolled dogs slaughtering our wildlife, especially deer, is the greatest threat to Georgia's hunting that we face today," Bagby said. "These same dogs kill thousands of calves each year, and are a major public health threat."

The chairman of the committee is Rep. Howard H. Rainey, 201 8th St. S., Cordele, Ga. 31015. Other members of the committee include Burton M. Wamble, Rt. 1, Box 119, Cairo, Ga. 31728; Kent Dickinson, Rt. 2, Douglasville, Ga. 30134; Henry L. Reeves, Rt. 2, Quitman, Ga. 31643; Richard M. Scarlett, P. O. Box 190, Brunswick, Ga. 31522; Dewey D. Rush, Rt. 4, Box 262, Glennville, Ga. 30427; and Jack W. Shuman, Rt. 1, Pembroke, Ga. 31321.

Letters to committee members should be courteous, to the point, and brief.



Gun Laws

It is misleading and irresponsible to say that gun legislation will interfere with the rights of hunters.

We lived in New York State for some time. New York has rigid gun control. Every autumn when the pheasant season opened the countryside was deep in red-coated hunters. In fact there were so many hunters it wasn't safe to let the dog out because they shot at everything that moved, including each other. They enjoyed every minute of it.

Until you have the facts, it is irresponsible to tell the Press that gun legislation will cripple the rights of hunters.

J. M. Maloney
(No Address Given)

Mr. Maloney is as uninformed as he is closed-minded by leaving his return address off his letter so that it could not be answered personally. Before pointing to New York as an example of the desirability of gun control, he should get his facts straight first. New York City enacted the stringent Sullivan law in 1911. Since then, the criminal homicide rate there has increased from 3.0 to 9.2 in 1966, or more than 200 per cent. That criminals do not register their guns is shown by the documented fact from New York City police records that in 1966, no licensed firearm was used in the commission of any criminal homicide, aggravated assault, or robbery in New York City. Who is being irresponsible and misleading?

I have just received that August issue of *Georgia Game and Fish* and as usual enjoyed it very much. It is truly a great magazine.

There are a couple of things I would like to comment on in this issue.

First—The article by J. Hall on the Okefenokee was excellent. The swamp has always fascinated me. In reading this article I renewed an old acquaintance of several years ago. I had lost track of C. B. O'Neal since he moved to Quitman from Thomasville some 18-20 years ago.

Second—I was glad to see the article by Governor Maddox. This was the third time that I had seen it. It appeared in the Lawrenceville paper in Tom Kinney's column. I am glad to hear there are still people with enough courage to stand up for the rights of the people they represent. There should be more of them in high offices.

Before closing, I want you to know that the magazine *Georgia Game and Fish* goes to Vietnam and is read from cover to cover by many.

Thanks for a fine magazine.

Warren Stevens
Lawrenceville, Georgia

Wild Dogs

My subscription to *Georgia Game and Fish* lapsed around the first of the year. When last I received it we were living in South Dakota. A check for \$2.50 is enclosed. Please re-enter my subscription.

SPORTSMEN SPEAK/*continued*

I have noted with great interest the recent controversy over wild dogs in Georgia. As noted by you, many conservationists all over America have been alarmed for years by this menace.

Before moving back to Georgia, in early summer, we looked at considerable rural property around the area in which we finally bought. One man who has cattle and sheep on 500 acres told me that dogs were harrasing his sheep and that "with a bottle of strychnine and two pounds of hamburger meat" he killed 13 in one weekend.

On one of our first visits to the place we eventually bought, three deer were driven by us, followed by a pack of stray dogs.

The proper results will not be accomplished by any kind of a law requiring inoculation for rabies. Such a law would be commendable but can't and won't be enforced in rural areas where relief is most needed.

The kind of law needed is simplicity itself. Just give the landowner the unquestioned right and duty to destroy any unwanted dog on his premises. Further make the landowner liable by law for any damage to person or property by a stray dog while on his premises.

Richard J. Weaver
Athens, Georgia

Undersized Trout?

On Page 16, The Sportsmen Speak, entitled Clark Hill by Mr. J. W. Smith, Augusta, Georgia; If you will note he has listed the sizes of fish that he caught. Well, this is all good, but if you will look over on the next page under the heading of Lake Trout Fishing Regulations, Mr. Smith has reported catching an illegal size trout in Clark Hill. This letter is not meant to criticize, but just to show the humor I got when I read the article.

I enjoy your magazine very much. Keep up the good work.

Burt Winsett
Dixie Plywood Company
Box 709
Savannah, Georgia

We might point out that he didn't say how many of the fish he released. So we will presume that he released the trout!

Sportsman's Calendar

SEASONS OPENING THIS MONTH DEER

Archery Season—Oct. 1, 1968 through Oct. 26, 1968 in any county or a portion of a county in all of Georgia except the southeast which is open Oct. 1-Oct. 14, 1968.
Bag limit—One (1) buck and one (1) doe or antlerless deer.

Firearms—Oct. 15, 1968 through Jan. 2, 1969 in southeast Georgia. See page 7.
Bag limit—Two bucks.

RUFFED GROUSE

Season—Oct. 14, 1968 through Jan. 31, 1969.

Bag Limit—3 Daily, possession limit 6.

POSSUM

Season—Oct. 14, 1968 through Feb. 28,

Bag Limit—One (1) per person per night.

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. 29, 1969.

Bag Limit—10 Daily.

SEASONS NOW OPEN

MOUNTAIN TROUT

Open Stream Season—April 1, 1968 through Oct. 15, 1968.

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. 15, 1968 through Sept. 7, 1968 in the following counties only: Dawson, Fannin, Gilmer, Habersham, Lumpkin, Murray, Rabun, Towns, Union, and White.

Bag Limit—10 Daily.

SEASONS OPENING NEXT MONTH

BEAR

Season—November 4, 1968 through January 2, 1969 in Brantley, Charlton, Clinch, Echols, and Ware counties.

DEER

Season—November 4 through November 12, 16, 23, 30, 1968 or January 2, 1969, depending on area regulations. See map on page 6 for county information.

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.

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.

S. E. Ga. Season—November 23, 1968 through December 7, 1968, in Camden County.

S. E. Ga. Bag Limit—One (1) turkey gobbler.

PIEDMONT NATIONAL WILDLIFE REFUGE

Turkey—October 21 thru 26. Refuge permit required. Applications must be in Refuge office by 4:30 PM September 25. Limit is one turkey of either sex.

Deer—Archery—October 1 thru 13. No refuge permit required. Bag limit as per State regulations.

Deer—Gun—Bucks only November 4 and 5. Bag limit 2 deer. Either sex. November 30. Bag limit 1 deer. Refuge permit required. Applications must be in Refuge office by 4:30 PM October 3, 1968.

Scouting—Daylight hours September 21 and 22 and October 26 and 27.

Camping—The camping area will be open one day before and one day after each of the above dates.

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. 23-26, 1968; Nov. 27-30, 1968; Dec. 30, 1968-January 2, 1969. Archery hunt for turkey gobblers; bag limit—two per season: Same dates as deer hunt. 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. 20, and for the Dec. hunt by Dec. 23. Write to the Refuge Manager, Savannah National Wildlife Refuge Rt. 1, Hardeeville, S. C.

STATE MANAGED AREA HUNTS

JOHNS MOUNTAIN AREA

DEER: (Archery) EITHER SEX. Open dates October 21 through October 26, 1968. Hunters may take one deer of either sex and small game as allowed by State regulations.

BLUE RIDGE AREA

DEER: (Archery) EITHER SEX. Open dates October 14 through October 19, 1968. Hunters may take one deer of either sex and small game as allowed by State regulations.

SMALL GAME: Open dates October 11-12, 25-26, 1968, December 6-7, 13-14, 1968. Hunters will be allowed to hunt grouse and squirrel.

CHATTAHOOCHEE AREA

SMALL GAME: Open dates October 18-19, 25-26, 1968, and December 6-7, 13-14, 1968. Hunters will be allowed to hunt grouse, squirrel, and rabbits.

CHESTATEE AREA

SMALL GAME: Open dates October 1-12, 25-26, 1968. Hunters will be allowed to hunt grouse and squirrel.

SPECIAL RACCOON HUNT: (.22 rim fire rifles only). Open dates October 1-12, 25-26, 1968. Hunters will be allowed to hunt raccoons with tree dogs.

LAKE BURTON AREA

SMALL GAME: Open dates October 1-19, 25-26, 1968, and December 6-7, 13-14, 1968. Hunters will be allowed to hunt grouse and squirrel.

WARWOMAN AREA

DEER: (Primitive Weapons) EITHER SEX. Open dates October 14-19, 1968. Hunters may take one deer of either sex and any number of wild hogs, and small game as allowed by State regulations.

SMALL GAME: Open dates October 1-12, 25-26, 1968, and December 6-7, 13-14, 1968. Hunters will be allowed to hunt grouse and squirrel.

LAKE RUSSELL AREA

DEER: (Archery) EITHER SEX. Open dates October 21 through October 26, 1968. Hunters may take one deer of either sex and small game as allowed by State regulations.

SPECIAL RACCOON HUNT: (.22 rim-fire rifles only). Open dates October 18-19, 1968, and 25-26, 1968. Hunters will be allowed to hunt raccoons with tree dogs. Dogs chasing deer will be barred from further hunting. Owners are responsible for their dogs and for any damage they do to game other than raccoons.

CEDAR CREEK AREA

SMALL GAME: Open dates October 16, 23 and 26, 1968; December 4, 7, 11, 18, and 21, 1968; January 4, 8, 11, 18, 1969. (Wednesdays & Saturdays). Hunters will be allowed to hunt quail, squirrel, rabbits, doves and ducks.

CLARK HILL AREA

DEER: (Archery) EITHER SEX. Open dates October 14 through October 19, 1968. Hunters may take one deer of either sex and small game as allowed by State regulations.

OAKY WOODS AREA

SMALL GAME: Small game hunting for quail, squirrel, and rabbits will be allowed on Wednesdays and Saturdays beginning September 11 through October 2, 1968.

SMALL GAME: Small game hunting for quail, squirrel, and rabbits will be allowed on Wednesdays and Saturdays beginning October 16 through October 26, 1968; December 4 through December 21, 1968, and January 1 through February 1, 1969.

SWALLOW CREEK AREA

SMALL GAME: Open dates August 15 through September 7, 1968, Fridays, and Saturdays only for squirrels, October 18-19; 25-26, December 6, 1968, through January 25, 1969, Fridays and Saturdays only. Hunters will be allowed to hunt quail, squirrel and rabbits.

COLEMAN RIVER AREA

SMALL GAME: Open dates August 15 through September 7, Fridays and Satur-

days for squirrel only, October 18-19 and 25-26, 1968, December 6, 1968, through January 25, 1969, Fridays and Saturdays only.

ALLATOONA AREA

SMALL GAME: Hunters will be allowed to hunt any small game in season subject to State seasons, regulations, and bag limits.

LAKE SEMINOLE AREA

SMALL GAME: Hunters will be allowed to hunt any small game in season subject to State regulations, seasons and bag limits. Camping will be permitted. No hunting will be allowed on the refuge area at any time.

CARROLL-DOUGLAS COUNTY AREA

SMALL GAME: Hunters will be allowed to hunt any small game in season subject to State regulations, seasons, and bag limits.

COHUTTA AREA

SMALL GAME: Hunters will be allowed to hunt any small game in season subject to State regulations, seasons, and bag limits.

For a complete copy of all management area hunt dates and directions, write to the State Game and Fish Commission, 401 State Capital, Atl., Ga. 30334.

ALTAMAHA WATERFOWL AREA (DARIEN)

Hunters will be allowed to hunt any game in season as provided by State law and bag limits except on Butler Island during waterfowl season and the refuge portion of Butler and Champney Islands at all times. **WATERFOWL:** Hunting for waterfowl will be allowed on Butler Island during waterfowl season by permit only. Permits must be applied for by mail from October 1 through October 31, 1968. All letters of

application must specify the date requested with a second choice if desired in the event the first date is filled. Applications will be accepted on a first come, first served basis and 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, Georgia.

Hunters whose applications were accepted will be mailed their permits no later than November 10. All applications that could not be filled due to dates selected being filled will have their \$5 refunded.

Assignments for blinds for each day's hunt will be made at the area headquarters the evening prior to each hunt. Each blind is assigned a number which is drawn at random and blinds assigned as the numbers are drawn and in the order in which applications were received and processed. Hunters will be assigned to the blind selected at the checking station the morning of the hunt. Hunters who have their permits do not have to come to the area until the morning of the hunt. All hunters should be at the checking station no later than 5:15 A.M.

The Game and Fish Commission will furnish blinds, boats and decoys to accommodate 50 hunters per day and all hunters must hunt from blinds as assigned. Transportation will be furnished to the boats. Hunting hours will be from 30 minutes before sunrise (same as Federal Migratory Waterfowl Regulations) until 12 Noon. Hunts will be conducted on Tuesday and Saturday only during the open season. Hunters will be limited to not more than 25 shells to carry onto the area.

All hunters 16 years old or older will be required to have a Federal Migratory Bird Hunting Stamp in addition to a valid Georgia hunting license.

OCTOBER 1968

Day	HIGH WATER				LOW WATER	
	A.M.	HT.	P.M.	HT.	A.M.	P.M.
1. Tues.	3:42	6.3	4:18	7.4	9:42	10:30
2. Wed.	4:36	6.7	5:18	7.6	10:48	11:24
3. Thurs.	5:36	7.1	6:12	7.8	11:42	
4. Fri.	6:30	7.6	7:00	7.9	12:12	12:30
5. Sat.	7:12	7.9	7:36	7.9	1:00	1:18
6. Sun.	7:48	8.1	8:12	7.7	1:42	2:00
7. Mon.	8:24	8.1	8:42	7.4	2:18	2:42
8. Tues.	9:00	8.0	9:12	7.1	2:54	3:24
9. Wed.	9:30	7.9	9:48	6.8	3:30	4:00
10. Thurs.	10:06	7.6	10:18	6.4	4:06	4:36
1. Fri.	10:48	7.4	11:00	6.1	4:42	5:18
2. Sat.	11:30	7.2	11:42	5.9	5:24	6:00
3. Sun.			12:18	7.0	6:12	6:54
4. Mon.	12:36	5.7	1:12	6.8	7:06	8:00
5. Tues.	1:36	5.7	2:12	6.8	8:12	9:00
6. Wed.	2:42	5.9	3:12	6.9	9:10	9:54
7. Thurs.	3:48	6.3	4:12	7.2	10:12	10:42
8. Fri.	4:48	6.9	5:06	7.5	11:06	11:30
9. Sat.	5:36	7.5	5:54	7.8	11:54	
10. Sun.	6:24	8.1	6:42	8.0	12:12	12:42
1. Mon.	7:06	8.6	7:24	8.1	12:54	1:30
2. Tues.	7:54	8.9	8:06	8.1	1:42	2:18
3. Wed.	8:36	9.0	8:54	7.8	2:24	3:12
4. Thurs.	9:24	8.9	9:42	7.5	3:12	4:00
5. Fri.	10:18	8.5	10:36	7.1	4:00	4:54
6. Sat.	11:18	8.1	11:36	6.7	4:54	5:48
7. Sun.			12:24	7.7	5:54	6:54
8. Mon.	12:48	6.4	1:36	7.4	7:06	8:06
9. Tues.	2:00	6.4	2:48	7.2	8:18	9:12
10. Wed.	3:12	6.5	3:54	7.1	9:30	10:06
1. Thurs.	4:18	6.9	4:54	7.2	10:30	11:00

TIDE TABLE

OCT.-NOV. 1968

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
OCTOBER	6	14	21	28
NOVEMBER	5	13	20	26

NOVEMBER 1968

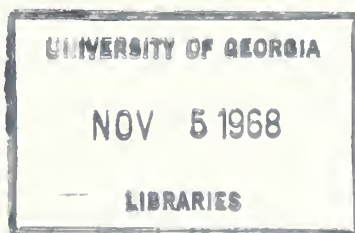
Day	HIGH WATER				LOW WATER	
	A.M.	HT.	P.M.	HT.	A.M.	P.M.
1. Fri.	5:18	7.2	5:48	7.3	11:24	11:42
2. Sat.	6:06	7.6	6:30	7.3		12:12
3. Sun.	6:42	7.9	7:06	7.2	12:24	12:54
4. Mon.	7:18	8.0	7:42	7.1	1:06	1:36
5. Tues.	7:54	8.0	8:12	6.9	1:42	2:18
6. Wed.	8:30	7.9	8:42	6.6	2:24	2:54
7. Thurs.	9:00	7.8	9:12	6.3	3:00	3:30
8. Fri.	9:36	7.6	9:48	6.1	3:36	4:12
9. Sat.	10:12	7.3	10:30	5.9	4:12	4:48
10. Sun.	10:54	7.1	11:18	5.7	4:54	5:30
11. Mon.	11:42	6.9			5:36	6:24
12. Tues.	12:06	5.7	12:36	6.8	6:30	7:12
13. Wed.	1:06	5.8	1:30	6.7	7:36	8:12
14. Thurs.	2:06	6.1	2:30	6.8	8:36	9:06
15. Fri.	3:06	6.5	3:24	6.9	9:36	10:00
16. Sat.	4:06	7.0	4:24	7.1	10:30	10:48
17. Sun.	5:00	7.6	5:18	7.3	11:24	11:36
18. Mon.	5:54	8.2	6:12	7.5		12:18
19. Tues.	6:42	8.7	7:00	7.6	12:24	1:12
20. Wed.	7:36	8.9	7:48	7.6	1:12	2:00
21. Thurs.	8:24	8.9	8:36	7.4	2:06	2:54
22. Fri.	9:18	8.7	9:30	7.1	3:00	3:48
23. Sat.	10:12	8.3	10:30	6.8	3:54	4:42
24. Sun.	11:12	7.9	11:30	6.6	4:48	5:30
25. Mon.			12:12	7.5	5:48	6:36
26. Tues.	12:36	6.4	1:18	7.1	6:48	7:42
27. Wed.	1:42	6.4	2:18	6.8	8:00	8:42
28. Thurs.	2:48	6.5	3:18	6.6	9:06	9:36
29. Fri.	3:48	6.7	4:18	6.5	10:06	10:24
30. Sat.	4:42	6.9	5:12	6.4	10:54	11:12



FORGIA

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GEORGIA

GAME & FISH

November 1968 Volume III Number 11



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation.

Contents

Where To, Bobwhite?	Dean Wohlgemuth	1
Hunter's Haven	Marvin Tye	4
Zero In	Dean Wohlgemuth	6
Something To Celebrate	Jim Morrison	8
Skin Him With A Golf Ball?	Charles Marshall	13
Outdoor World		15
Sportsmen Speak		16
Sportsmen's Calendar		17
Tide Table		17

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PHOSPHATES \$100 MILLION GIVEAWAY



Director Bagby

(Statement by George T. Bagby, Director of the State Game and Fish Commission, to the public hearing of the State Mineral Leasing Commission held September 16, 1968 concerning proposed leasing of offshore state lands in Chatham County to the Kerr-McGee Corporation of Oklahoma):

I have come here today to express my complete opposition and the opposition of the entire State Game and Fish Commission to granting this proposed lease to the Kerr-McGee Corporation.

Our opposition is based on the fact that the proposed dredging and filling involved in this operation will destroy an extensive portion of the Georgia Coast for seafood production and sport fishing, if there is no water pollution that spreads to other areas of the coast.

At present, we are compiling figures to show the astronomical economic loss to the State of Georgia that will result from this certain destruction.

In the meantime, I wish to raise several serious questions about this proposal which greatly disturb me. I believe that members of this Commission, the news media, the General Assembly, and the general public would do well to look further into the question of what this outside private company proposes to get from the State of Georgia under the terms of their bid.

There is only one bidder. That is not competitive bidding to protect the interest of the people of Georgia.

Who owns Cabbage Island? Who owns Little Tybee Island? Who has an option to purchase much of Wilmington Island? Kerr-McGee owns them, and they are the only company that can bid on this lease.

Why Chatham County? Why not Echols County, where phosphates are lying on top of the ground, with no ocean over them? It's because this company owns these islands next to these marginal phosphate deposits, and they need the hundreds of feet of dirt, sand, and rock lying over them to create valuable real estate on their property.

Based on an analysis of the cost of fill material for creating valuable waterfront real estate that will be created (Continue to back page)

ON THE COVER: Good companionship, a good fire, a sizzling T-Bone steaks . . . the perfect end of a deer hunter's day, even if he didn't score. Two of the hunters who spent their fall vacation last year on the Game and Fish Commission's Piedmont Experiment Station Game Management Area hunt included Buford Hudson, left, and Buddy Johnson, who both work for Stein Printing Company in Atlanta, printers of *Game and Fish Magazine*. Photo by Ted Borg.

ON THE BACK COVER: A lonely squirrel hunter, high on a ridge in the Cohutta Game Management Area in North Georgia, where squirrels are hard to find this year. For the story of the squirrel "migration," see the Outdoor World on page 15. Photo by Ted Borg.

PHOTO CREDITS: Ted Borg 1, 2, 3, 13, 14, 15; Jim Morrison 8, 10, 11, 12; Marvin Tye 16; Dean Wohlgemuth 6.

Where To, Bobwhite?

By Dean Wohlgemuth



A dog on point, a bird on the rise, and up comes the gun. Ronald Simpson, Game and Fish Commission biologist, is like many other sportsmen in his off-duty hours—he rates quail hunting one of the finest sports going.

The dog wasn't the prettiest pointer you ever saw. Nor was he particularly stylish. But bird savvy he had. He wasn't registered, but somewhere in his background there must have been good stock. The dog's owner was just an average American hunter, and he loved quail shooting.

In another field perhaps 10 miles away, was a brace of dogs, beautiful, stylish, well trained registered bird dogs, one a pointer, the other a setter. Their owner was probably a young executive. Like Mr. Average, he loved quail shooting.

Neither of these two men loved the sport more, however, than did the young-

ster who was hunting on a neighbor's land, toting an old singleshot 12 gauge, like you used to get from the mail order houses. The boy, in his teens, usually hunted alone but occasionally the neighbor's yard dog came along. This dog was not trained at all, and had no hunting stock in him. Yet sometimes he could help by finding a covey, and by flushing them for the youthful hunter.

Rounding out the contrast of types was the aristocratic quail hunter, still farther on down the road at a huge plantation, where a whole bevy of very stylish, highly disciplined champion line dogs answered the beek and call of the handler, while the well-heeled hunters

rode on a rubber-tired muledrawn wagon.

This, then is quail hunting in Georgia. It matters not so much into which group you fit. When the covey comes a-bounding out of heavy cover, if you're a dyed-in-the-wool quail hunter that covey rise—especially the first of the season—will probably make your heart feel like it wants to find a new home in your mouth. You tingle all over like you did when, as a very young schoolboy, that cute blue-eyed blonde across the room smiled back at you in such a way that you were sure it meant she really liked you.

Much as the quail is loved in Georgia, the bird was pretty well taken for



Above: The end of a good hunt. Who can blame Simpson for the broad grin he wears with the nice bag of birds he's collected. During his working hours, Ron is in charge of the Game and Fish Commission's quail study project.



Left: Neatly cracked egg shells tell a happy story of a clutch of quail successfully hatched. There won't be another brood for this pair of quail should anything happen to these youngsters. If a nest is destroyed before eggs are hatched, however, the bobwhite pair will continue to renest until success is attained.

Below: Here's one of the reasons why renesting is necessary sometimes three to four times for some quail. This slithery critter will make a meal of quail eggs if he finds a nest. So will raccoons, skunks, housecats, dogs, and many other animals.



granted until recent years. Now there's genuine concern about the quail, because his numbers seem to be rapidly declining. The opportunity to hunt him for the vast majority of us at least, is dwindling at an alarming rate.

The greatest problem for most hunters is finding land on which they can hunt. When hunting land is found, it is normally public lands or forest lands with timber so thick that even though some quail are there, hunting is at least very difficult, if not impossible.

More and more timberland, and less and less grain crops are to be found in recent years, and all this has taken a drastic cut into the amount of good quail country. The quail himself is adapting more and more to a wooded type habitat.

For many a hunter, a quail is strictly a member of a covey of perhaps anywhere from eight to 20 birds, which rise with a heart-stopping whirr from the very feet of the hunter, providing sport targets and delicious eating.

Beyond this, little thought is given to the valiant little bird, except perhaps when he is seen along a roadside. Rare does he come to mind except in autumn through the winter months, which are open to hunting.

Yet on a spring day a fisherman may hear, from a nearby shoreline, that clear clean whistle, "bob, bob white!" Even suburban dwellers may hear that call the distance from a not-too-far-away patch of woods, grass or small field along about evening in April.

At that time of year, the quail is no longer a member of a covey. He pairs off with his winter companion and strikes out to find a mate. Pairing off, the cock and hen stay together through the summer months while tempting to raise a family.

Usually, nesting begins in May and continues through August, but on occasion some quail may nest as late as October in this far-south location. The birds are monogamous, keeping just one mate during the season. Normally, there are 15 per cent more cocks than hens, and these "bachelors" continue the "bob white" whistles through the summer, searching for a mate of their own.

The cock is the homebuilder, usually depending on grasses and pine needles for building materials. The hen will require some 20 days to lay the clutch of eggs, which will average about 14 in number. Both male and female share

incubation duties, and in 23 to 24 days, they'll bring off the hatch.

Should the nest be destroyed before the eggs are hatched, or should the eggs be molested, the quail will begin anew and lay another clutch of eggs. However, once even a single tiny bird is hatched, the nesting is over for the year for the parents. It may take many tries before the effort is successful.

When weather is rainy early in the year, many eggs may be lost, and the crop of young birds will be delayed until later in the summer when the weather is more ideal. Birds born earlier, along with those born later, account for the varying sizes of young birds found in the fall by the hunter. Trays from other coveys, and those left orphaned will join another family, so that by hunting season coveys may have several different sizes and ages of birds in them.

Seeds of crops and weeds provide the bulk of the quail's diet, but he also eats a variety of wild fruits and quite a lot of insects. Various lespedezas, beggar-ticks, corn, partridge peas and similar seeds, comprise some 65 per cent of the food for quail. Blackberries, wild plums, black cherries, mulberries and blueberries account for perhaps 20 per cent of the diet, while insects take care of the remaining 15 per cent.

Hunting pressure rarely has an effect on quail populations. Some 50 or 60 per cent of the quail will survive the winter whether or not quail are hunted. Controlling of predators by man in quail country really does not produce the desired results. Few quail fall to predation unless there is an overpopulation problem, and those who do are the weaklings, the sick and the stupid. Predators aren't able to capture the strong and healthy, thus leaving the best birds for breeding stock.

Actually, predators have an opposite effect on quail. Hawks, owls, foxes and others that do take an occasional weakling quail, depend primarily on such things as rats and mice for their livelihood and are therefore much more friend than foe of the quail. Rats and mice eat the grains and seeds that the quail must have to live on, and an overabundance of rodents means there is less food for the quail.

If predation is a problem, it is probable that the greatest reason is a lack of good habitat for the birds in the first place. Modern farming practices of utilizing every possible square foot of



Watching a good dog work is a huge part of the enjoyment of quail hunting. This pointer knows what to do with a bird after it's downed.

land and cleaning out fence rows are the chief reasons for the lack of quail production on most farms. The quail must have thick cover in which to hide, nest, find food, and to protect him in bad weather. He likes "edge habitat," that is the edges of woods near grain fields or weed patches. Multiflora roses and other such thick brush provide him with excellent cover.

Where the quail must move into woodlands to find a place to live, he can still be helped tremendously by a controlled burning program. Woodlands should be burned in sort of a small checkerboard pattern. Such burning is kept under control by firelanes which keep the fire small enough to prevent damage to trees. The squares of the "checkerboard" should be burned on alternate years. Burning should be done in February, when the quail population is at a low ebb, and the hardiest of birds remain. By burning only small patches, the quail can escape to nearby cover.

The burning will rid the woodlands of undergrowth that is too thick, thus smothering out new growth. The burning opens up the forest floor to the air, and stimulates the germination of legume seeds.

Burning is especially effective in pine forests. Where burning cannot be done, particularly in hardwoods, wise thinning and harvesting of trees can help to open the forest floor to sunlight, and stimulate new growth of small plants and bushes, providing food and shelter for quail.

The Game and Fish Commission is currently engaged in a two-year study of quail populations in southwest Georgia, in the heart of the state's finest quail country.

Ronald Simpson, game biologist for the Commission, is conducting the study in various phases, including nesting success, hatching dates, annual reproduction, mortality rate, effects of weather, sex and age ratios and population density. The thorough study will not turn up definite results until it is complete. Simpson expressed hope that the study could be extended a year in order to produce more accurate information.

Nesting studies showed that only about 16½ per cent of the nests in the study area in 1967 were successfully hatched off. More nests were successful in July than in any other month, but this may vary somewhat, depending on weather and other factors. Of course, the unsuccessful nests in most cases probably were rebuilt until a succeeding nest was successful, which would balloon the total number of nests involved in the study.

Normally, in a healthy population of quail the hunter's bag will contain 70 to 80 per cent young birds, that is birds that were born that year.

In the area being studied by the Commission, wings of quail were collected from hunters, to determine the ratio of juvenile to adult birds. These figures showed that in 1967, 63.5 per cent of the birds taken were young of the year, while in 1968 the percentage rose to 69.2, or about normal.

The studies also seem to indicate that few quail journey more than a mile from their home base, and apparently, most movement is restricted to within a half mile radius.

Of course, just what will be learned from the study cannot be determined until all figures are in and analyzed.

At any rate, Simpson ventured to estimate from his observations in the field, that there should be somewhat better hunting this year for quail than in the past few years.

And this is what the sportsman wants most to know.

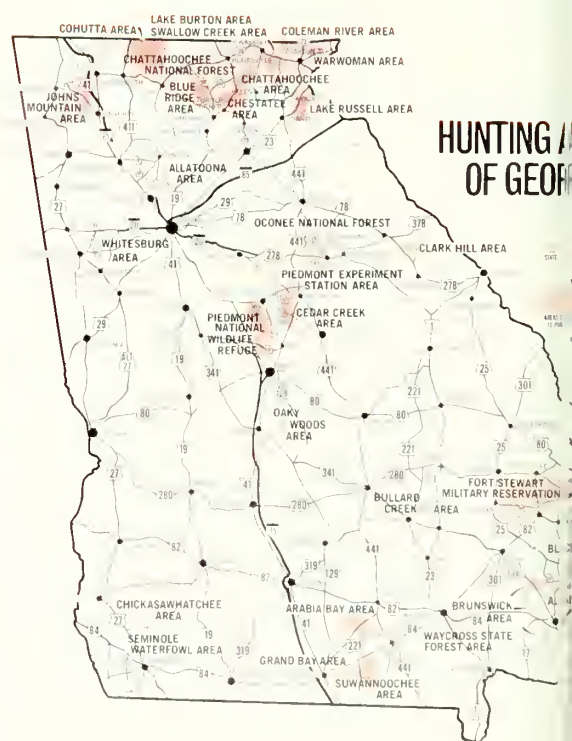
HUNTER'S HAVEN



Georgia's Managed Hunts Good Hunting for Everyone

By Marvin Tye

GAME MANAGEMENT AREAS



In this period of overcrowded cities and rapidly expanding population, many hunters are hard pressed to find a place to pursue their favorite game animals. The man who does not have access to privately-owned land, Georgia's 25 game management areas which contain more than 750,000 acres of good hunting land could be the answer to his problem.

Wildlife is managed scientifically to produce the finest possible hunting content with the primary land use of each area. Since many areas are leased to the land free of charge for hunting purposes by private timberland owners, for game species like deer, squirrel, quail, and turkeys are the most abundant. Because there is little open land on farm game habitat on most of the areas, game management efforts of necessity are directed primarily to forest game. Exceptions to this rule are the Altamaha and Seminole waterfowl areas. Because of poor natural habitat, hunting for foxes and raccoons on most of the areas is poor.

Some good quail and rabbit hunting is available on pulpwood company land that has been cleared for tree plantings. Hunting is good in these areas until the trees begin to shade the forest floor. On many areas, clearings such as old roads, powerlines, and fields, have been seeded

with food plants designed to attract quail and rabbits. Landowners on some areas allow the Commission to improve the habitat for quail and rabbits by controlled burning of the woodlands.

Georgia's game management areas serve as seed areas for restoration of wildlife such as deer, turkey, and bear into surrounding areas. These game management areas are operated under a state-federal matching fund program financed primarily by the federal excise taxes on the sale of rifles, shotguns, and ammunition for these weapons. The federal government collects the 11% tax and apportions it to the states for wildlife restoration purposes under the Pittman-Robertson Act, based on the number of hunting licenses sold in each state and its geographical area. The Georgia Game and Fish Commission provides one dollar for each three dollars provided by the federal government. This money is used to purchase or lease land, hire game biologists and area managers, pay operating expenses, and finance many diverse wildlife research and game management projects.

In 1968, Georgia received approximately \$600,000 from the federal excise tax on sporting arms and ammunition, and matched that with approximately \$200,000 in State Game and Fish Commission Funds.

In addition to state managed areas, all of the approximately 800,000 acres of National Forest land outside the management areas are open for hunting any species of wildlife in season in the county in which the land is located. Three national wildlife refuges and one military reservation, Fort Stewart, are also open to public hunting under special regulations and permit systems.

A list of seasons for small-game and deer hunting areas accompanies this article. To apply for a quota hunt, send a written application with \$5 in check or money order to the Game and Fish Commission, 401 State Capitol, Atlanta, Ga. 30334. Participants will be drawn from applications bearing post marks from November 6 through November 11. The \$5 fee will be refunded to those whose names are not drawn.

For further information on Fort Stewart, contact Provost Marshall, Fort Stewart, Ga. 31314. Write the Refuge Manager, Blackbeard National Refuge, Rt. 1 Hardeeville, S. C. 29927 for more information on that area. For more detailed information on Piedmont Refuge, write the Refuge Manager, Round Oak, Ga. 31080. Contact Refuge Manager, Savannah National Refuge, Rt. 1, Hardeeville, S. C. for information on the Savannah National Refuge.

MANAGED DEER HUNTS SCHEDULE

PRIMITIVE WEAPONS (EITHER SEX)

Dates	Areas
Oct. 14-19	Warwoman
Nov. 22-23	Chickasawhatchee
Dec. 16-21	Piedmont Exp. Station

ARCHERY (EITHER SEX)

Dates	Areas
Oct. 1-14	Brunswick Pulp & Paper Co.
Oct. 14-19	Clark Hill, Blue Ridge
Oct. 21-26	John's Mt., Lake Russell
Nov. 7-9	Suwanoochee

BUCK ONLY

Dates	Areas
In Season	Altamaha and Lake Seminole
Nov. 4-Jan. 2	Brunswick Pulp and Paper Company (Special regulations apply to each tract of this area. See Managed Hunts brochure for details.)
Nov. 18-23	Arabia Bay
Nov. 25-27	Allatoona (QH 400)
Nov. 25-30	Blue Ridge, Bullard Creek, Chattahoochee, Chestatee, Coleman River, John's Mt., Lake Burton, Lake Russell, Oak Woods, Swallow Creek, Warwoman
Nov. 25-29	Cedar Creek, Clark Hill, Piedmont Exp. Station
Dec. 2-7	Waycross State Forest
Dec. 6-7, 13-14	Chickasawhatchee (QH 300 each 2 days)
Dec. 16-21	Suwanoochee (permit required, no fee)

ANTLERLESS ONLY

Dates	Areas
Dec. 2	Blue Ridge, (QH 500), Chestatee (QH 300), Lake Burton (QH 300), Coleman River, (QH 300)

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. (except during dog deer hunts)	All (except raccoons)
Dec. 7-Jan. 15 Tues. & Sat.	Altamaha (Butler Island)	Waterfowl
Oct. 18-19, Nov. 1-2	Lake Russell	Raccoons
Oct. 18-19, 25-26 Dec. 6-Jan. 25 Fri. & Sat.	Swallow Creek, Coleman River	Grouse, Squirrel, Rabbit
Oct. 11-12, 25-26	Chestatee	Raccoon
Oct. 11-12, 25-26	Chestatee	Squirrel, Grouse
Oct. 18-19, 25-26 Dec. 6-7, 13-14	Lake Burton	Squirrel, Grouse
Dec. 4-14 Dec. 28-Jan. 31 Wed & Sat.	Piedmont Exp. Sta.	Quail, Squirrel, Rabbit, Doves, (In season)
Oct. 16, 19, 23, 26 Dec. 4, 7, 11, 14, 18, 21 Jan. 4, 8, 11, 15, 18 Wed. & Sat.	Cedar Creek	Quail, Squirrel, Rabbit, Doves, (In season)
Oct. 18-19, 25-26 Dec. 6-7, 13-14	Chattahoochee	Grouse, Squirrel, Rabbit
Dec. 5, 12, 19, 26 Jan. 2, 4, 9, 11, 16, 18, 23, 25, 30	Bullard Creek	Quail, Squirrel, Rabbit, Dove, & Snipe (In season)
Dec. 30-Jan. 4	Suwanoochee	Squirrel, Quail, Rabbit
Oct. 11-12, 25-26 Dec. 6-7, 13-14 Jan. 20-25	Blue Ridge	Grouse, Squirrel
Oct. 16-26 Dec. 4-21 Jan. 1-Feb. 1 Wed. & Sat.	Arabia Bay	Quail, Squirrel, Rabbit
Oct. 16-26 Dec. 4-21 Jan. 1-Feb. 1 Wed. & Sat.	Oaky Woods	Quail, Squirrel, Rabbit
Dec. 4, 7 Jan. 4, 8, 11	Clark Hill	Quail, Squirrel, Rabbit, Doves, Ducks (In season)
Oct. 11-12, 25-26 Dec. 6-7, 13-14	Warwoman	Grouse, Squirrel
Nov. 28, 29, 30 Dec. 12, 13, 14	Waycross State Forest	Quail



Here's Where You Can Zero In

Looking for a place to shoot in metropolitan Atlanta? The DeKalb County Recreation Department's firing range has pistol, rifle, and shotgun facilities.

By Dean Wohlgemuth

■ Opening day is rolling around for the various hunting seasons, firing enthusiasm in hunters. However, in many cases, especially for the city dweller, it raises some perplexing problems. One of the largest problems now has been solved for the largest metropolitan area of the state.

Hunters want and need to get in a little pre-season practice with their shotguns and rifles. They need to sight in their rifle, be certain the missile they fire is going where it is intended to go. Yet, for most of them, particularly the city sportsman, there just isn't anywhere to get any shooting practice.

Such practice is highly important, not only for the hunter but from the

standpoint of the State Game and Fish Commission. The hunter who has a chance to get in some good practice beforehand has become more familiar with his weapon. He is less likely to be included in statistics involving hunting accidents. He is less likely to get trigger happy on days when game is scarce, and wind up breaking bottles, shooting tin cans, chickens, and what-have-you.

Also important from a conservation standpoint, he is less likely to wound game and leave it to die in agony. He'll kill more game cleanly and quickly and add it to his bag for the day, rather than waste it afield.

Now it is possible for hunters, particularly in the metro Atlanta area, to

get in that much needed pre-season warmup. At last, there is a place you can go.

DeKalb County's Parks and Recreation Department is now operating, on a full-time basis, a public shooting range open to anyone. The range is open seven days a week, all year around, according to John Carson, Recreation Administrator for the DeKalb Parks and Recreation Department. Hours are from 10 a.m. to 6 p.m. on week days and Saturday, and from 1 to 6 p.m. on Sundays. To reach the range, take I-285 East from Atlanta to the Evans Mills exit, turn right and follow signs to the range.

Tommy Thompson, range officer, said that the range, open on a full-time basis by the county since last May, now can offer skeet, trap, crazy quail, 100-yard highpowered rifle range (ideal for deer hunters), ranges for .22 rifles and muzzle loaders and pistol ranges of 25 yards and 1,000 inch. Skeet, trap and crazy quail shooting is \$1.50 per 25-shot round. Use of the other ranges are \$1 per hour per person.

Thompson said he hopes in the future to add some new features to the range, including moving deer targets, and an archery course.

Actually, the range itself is not new, but has undergone quite a face-lifting since the Parks and Recreation Department took it over about a year ago. Formerly, the range was operated by the County Police Department. While filling a void, the Police Department was unable to operate it on such an elaborate scale as is the Parks and Recreation Department.

For instance, the trap, skeet and crazy quail are all new additions. Trap is of primary benefit to the quail hunter, and the skeet to dove hunters. Thompson pointed out. The "crazy quail" range is of even more benefit to the quail hunter.

Crazy quail is only somewhat similar to conventional trap shooting. A similar trap is used, but it is mounted on a swivel which permits the machine to throw birds anywhere within the full 360-degree circle of the trap. Normally, however, for reasons of shooting safety it is limited to approximately a 180-degree semicircle.

Rather than being mounted in a partially underground trap house, the crazy quail trap is completely below the ground level, in a round pit about eight feet across and about eight feet deep.

The shooter, rather than calling for each individual clay bird as in skeet or trap, simply notifies the trap operator that he is ready to shoot. The operator may then send out a clay target at any time, up to about one minute. After each shot is fired, the shooter must reload his gun with a single shell, and be ready for the next surprise shot... that is, he knows only that the target may come anytime after a reasonable delay to provide time to reload. And the target may go in any direction. The targets continue to fly, without his calling for them, until a complete round of 25 shots has been made.

Getting in that pre-season practice could go a long way toward filling the game bag a little fuller this fall and increase enjoyment afield. And you might discover that you really don't need to replace your favorite deer rifle after all—a little sighting in and practice might just be all you needed to get your shooting on the beam!



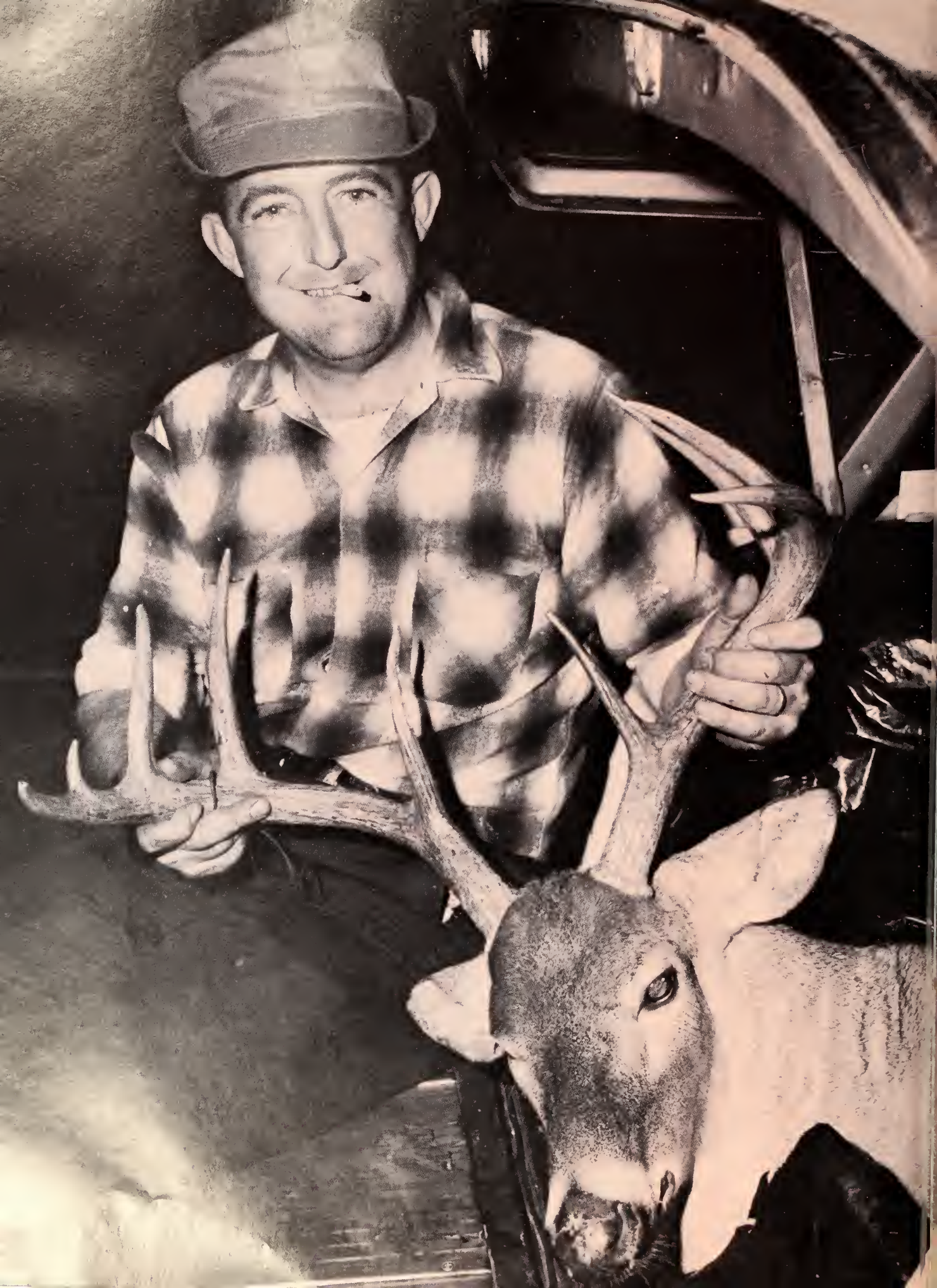
Above: Deer season is here, and it's time to get that rifle sighted in before hunting. Good bench rests and 100 and 200 yard ranges are perfect for getting the sights set, along with some valuable practice.

Right: In the "Crazy Quail" pit is Tommy Thompson, range officer for DeKalb County. Shooters don't know which direction the target will go, or when. Thompson lets fly when he gets ready. Shooters get the best snap shooting possible outside of an actual quail hunt.



Below: There she goes! The clay bird flies out of the corrugated metal pit in front of the shooter. The DeKalb range also has conventional trap and skeet shooting ranges.



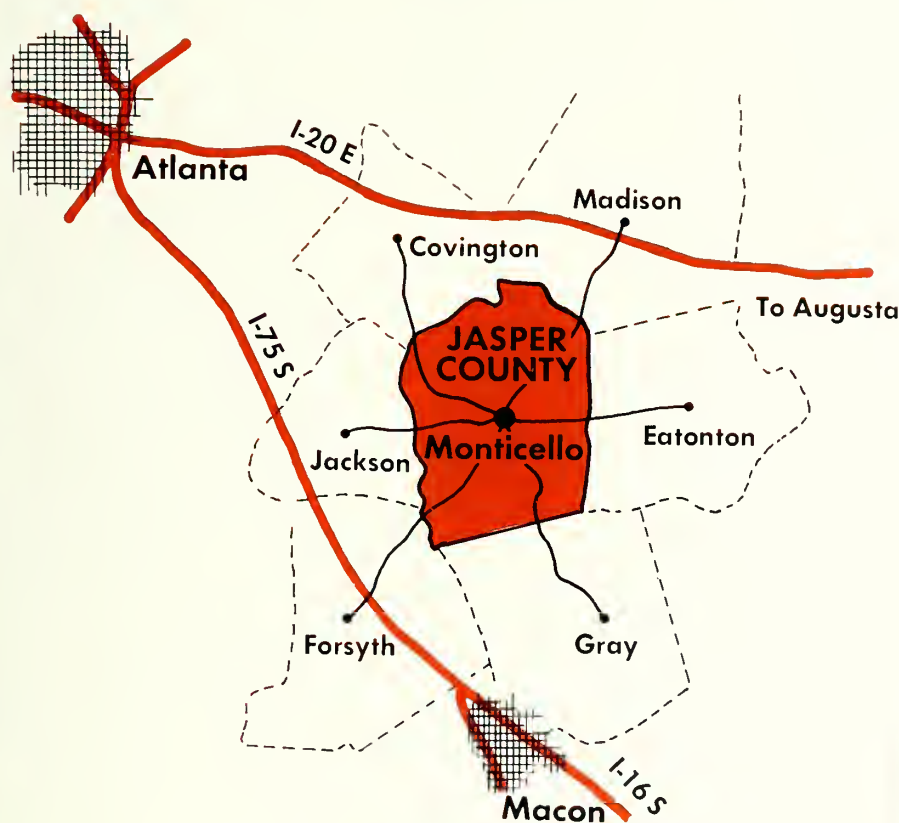


ft: A nine-point, 200 pound Jasper
 county buck is plenty of cause for cele-
 bration by Hoyt Hobgood of Forest Park,
 who bagged the monster moments before
 Monticello's first annual "Deer Festival"
 began.

Something to Celebrate

Jasper County's Deer Festival

By Jim Morrison



Whisper the magic words "Jasper County" into the ear of any deer hunter from Marietta to Monticello to Macon, and just watch his eyes light up with anticipation.

The reason for his enthusiasm is the focal point of one of the most unusual community celebrations in the United States.

Jasper County is *deer country*. Located between Atlanta and Macon, it is a mecca for thousands of deer hunters each season. Exactly how many deer they take is a subject of speculation, as is the total number of hunters, but both figures are impressive for a Georgia deer hunting county.

"Other towns have festivals for their leading local products like peanuts, cotton, or apples," says Mack Tillman, last year's president of the Monticello-Jasper County Junior Chamber of Commerce, "so we decided to celebrate one of our leading products—deer hunting!"

So the Jaycee's got busy. Joining forces with the Kiwanis Club, they quickly made plans for what is believed to be the first and only "Deer Festival" in Georgia, the Southeast, and perhaps the United States or the world!

After the initial plans were made, the group got some assistance in making their final plans from David Almand, the wildlife specialist of the Cooperative

Extension Service at the University of Georgia, and began promoting their festival, and Jasper County's deer.

Several hundred hunters and local residents attended the first Festival held on the high school football field in Monticello. Red-coated or red-hatted deer hunters by the dozens from surrounding areas lined up to get a modestly priced hot barbecue plate for their supper. Then they sat in the bleachers to hear some of the most unusual oratory ever heard in praise of a Georgia county's most well-known commodity.

Heading up the list of notables was the Director of the State Game and Fish Commission, George F. Bagby,



"Nice Kitty?" The youngsters are fascinated by the wildcat in the wildlife exhibit. Wildcats (or bobcats) kill a few young or sick deer, but are not nearly the threat to wildlife that ordinary dogs are. Deer, dogs and bobcats aren't rare in Jasper County.

the Director of the Georgia Forestry Commission, Ray Shirley, and Jim Adams, president of the Georgia Sportsmen's Federation. David Almand served as master of ceremonies, joke-teller, and economist.

As could be expected, the real highlight of the ceremonies was the presentation of the first Deer Festival Queen, pretty Judy Cannon, a Monticello High senior. Then, prizes were given away in a drawing, including a prize for the hunter who came the farthest to deer hunt in Jasper County, which went to Mack Pitts of Ringgold, just below the Tennessee border. Then hunters, wives, and children took one more look at the Game and Fish Commission's wildlife exhibit.

"Last year's Festival was so successful, considering the short amount of time we had to organize it, that we decided to make it an annual event," says this year's Jaycee president, Eddie Tyler.

"We're going to hold it during the middle of the day on November 9, this year," Tyler says. "We'll have barbecued chicken beginning at 11 a.m. until 3 p.m. on the courthouse square in Monticello, where all the activities will take place. Governor Maddox is scheduled to speak at 1:30 p.m., and will crown this year's Festival Queen at 2 p.m."

This year, in addition to the Game and Fish Commission exhibit, the Jaycees have rounded up a number of other exhibits, including major outdoor products, camping trailers and jeeps, all of which will be parked around the

exhibit grounds. There will be prizes

given away, including two deer hunting rifles. A band will play continuously from 9:30 a.m.

"We think that the Festival is a good way of attracting attention to Monticello and Jasper County," says Billy Connelly, chairman of this year's Festival. "We're calling Monticello and Jasper County the 'Deer Capitol of the Southeast.'" Deer hunting has an important effect on our economy, and our Festival emphasizes that to the local landowners and merchants, and helps to draw in more hunters. At the same time, we want to promote good sportsmanship and firearms safety."

How good is the deer hunting in Jasper County? To answer that question, we'll call in three expert witnesses: "Gus" Tillman, the wildlife ranger assigned to Jasper County, Dick Whittington, the Commission's Middle Georgia game supervisor, and Hubert Handy, the Commission's chief of game management.

"I'd say that Jasper and Jones are the two best counties anywhere in the State for deer hunting," says Whittington, who has bagged over a dozen deer himself, including several in Jasper County.

"There may be more deer killed in Jones County, but there are probably more deer and better hunting in Jasper. I'd rather hunt there. We had a deer kill reported for Jones County one year of about 2,200 deer, but that included about 700 deer from Piedmont National Wildlife Refuge and about 375 at the State's Cedar Creek Game Management Area."

While most of Cedar Creek and Piedmont National lie in Jones County, they

both extend into Jasper. In fact, all of the deer in the county today spread into it from the two wildlife refuges.

"I'd hate to guess how many deer we have killed every year," speculates Ranger Tillman. "I had about 700 reported last year, but the real total must have been somewhere between 800 to a thousand or more. I don't know how many hunters we had. It looked like a Fourth of July parade here the first week last year. I guess it might be more than 10,000 hunters all during the season."

Tillman's estimate is backed up by Whittington and Handy. All three agree that the Piedmont section surrounding Monticello is indeed the best deer hunting area in Georgia, especially in the matter of deer numbers. While the average size of the deer and their antlers may be declining somewhat, some whoppers are taken there each year. The average size still excels that of the mountains or of South Georgia, primarily because of better habitat. Why Handy explains it this way:

"The county is about all woods, except for dairy farms, and it's been stocked a long time. We first put out 140 deer in the Cedar Creek Area in 1946 and 1948, and they've spread out over the entire area. It has one of the best deer habitats of any section of the state, food-wise. It's covered up in Japanese honeysuckle, so deer don't have to depend on an unpredictable mast crop in the winter, like in the mountains. They have honeysuckle there to eat winter or summer, regardless of whether or not there are any acorns. You might call it manna from heaven," Handy explains.

"During the hunting season, deer are eating primarily nuts, fruits, and honeysuckle, mostly acorns, mushroom hawthorne fruits, etc. They always eat some honeysuckle before bedding down. You can find it in them year around. This time of year it's about the only tender green thing left, and by December, they're living almost exclusively off it.

"Then, too, there is a good bit of escape cover from dogs around the Ocmulgee River on the west side of the county, along with Jackson Lake at the northwest corner. Of course, deer are protected from both poachers and dogs on Piedmont National and Cedar Creek, but Jasper County has a lot of dogs. These two areas provide a seed area which insure that the surrounding areas don't get overhunted. Then there is a lot of forest land, including National Forest land and timber company land that is open to the public for hunting."

What about the economic impact of deer hunting on Jasper County?

"Well, we don't know exactly, but it's tremendous," Handy says. "We know

at the average big game hunter in the nation spent \$64 each in 1965, or about \$2.55 a day. Our Georgia survey taken by the U. S. Census Bureau in 1961 showed that the average Georgian spends \$5 a year for all types of hunting, including \$32.40 for big game alone. Hence the average Georgia big game hunter hunts an average of 3.4 days each, his average daily expenditure is about the same as the national average."

How much of that money goes to Jasper County?

"We know that some of it is spent outside the county buying equipment and supplies, and some of it on the road getting there, but a good bit is spent in the county itself. I'd say maybe \$5 of that a day. Hunters buy lots of food there at grocery stores and restaurants, along with gasoline for their cars and trucks. Some of them stay in the motel there, and a lot more would, if there were motels enough for them. Of course, they buy some supplies and equipment there as well, including ammunition, hunting licenses, etc. In addition, local hunters probably buy all their equipment there, including guns, tree stands, etc."

Based on some very quick figuring, an estimated 10,000 hunters spent an average of \$5 a day in Jasper County during three days of hunting, they would spend \$150,000 there alone! By the time this money is exchanged in local commerce, economists say its effect would be 12 to 13 times the original figure, meaning that deer hunting might have an effect of up to \$1,800,000 on Jasper County alone!

Admittedly, these figures are based on several estimates, but they are a general indication. Work will be done in the near future to refine them, and to determine how economically valuable hunting is to Georgia. One survey indicated that the average deer in the bag is worth about \$400 each. Using this figure on an estimated 1,000 deer, Jasper county deer bagged would have generated \$400,000 for Georgia's economy!

Another aspect of the economic impact of deer hunting is illustrated in Jasper County by the advent of pay hunting. True, there is plenty of free National Forest Service and timber company land to hunt on in Jasper. Hunting pressure is probably about equally heavy on Oconee National Forest lands and Georgia Kraft Company timberlands. But already, some of the other timber companies in Jasper have begun leasing hunting rights on their lands, including Continental Can, Owens-Illinois, and Georgia Timberland, according to Tillman. Others may eventually go to a daily or season permit system, Handy says.

Private land in Jasper, like many popular deer counties, is mostly posted.



Georgia's Number One deer protector, Game and Fish Commission Director George T. Bagby, was the principal speaker at last year's Festival, where pretty 17-year-old Monticello High senior Judy Cannon was named Queen.

As a rule, landowners don't allow hunting except for a few friends and neighbors or relatives, except through leasing.

"I can't say that I'm opposed to leasing," Whittington replies. "You and I and the general public couldn't hunt on that land anyway, so leasing makes it available to the public, on a group basis. It's not uncommon for a hunting club or a group of hunters to get together and lease a tract of hunting land. I don't mind, as long as they hunt it. I don't like to see land leased up and not hunted much."

Handy agrees to Whittington's points, but is cautious of landowners who might tend to try to exploit their game too heavily for profit by leasing it to too many hunters, causing over hunting to occur.

"Most of these tracts are small," Handy points out, "Maybe from 300 to 500 acres or so. On 300 acres, you might have, say, 10 deer, out of which you could harvest about three deer a year. If you take more, you're probably harvesting game that was raised on somebody else's adjacent land that moved into the void left from overharvest. Is that fair?"

Handy does feel that landowners leasing their lands should be and may well already be more wildlife conscious, perhaps more willing to support wildlife conservation measures, including control of dogs and night hunters.

Regardless of the pros and cons, land leasing for deer hunting is in full steam in Jasper and surrounding counties. The average price ranges from 75 cents to \$1.50 an acre, perhaps less on a larger tract or more on a choice one. Usually, a group does the leasing, agreeing to help the landowner control trespassing

and poaching on the land during the hunting season. Landowners also like the arrangement, which pays for their taxes on timberlands that don't produce an annual income.

While many landowners deal directly with sportsmen, Jasper County has produced an interesting phenomenon in the form of a realtor who has begun specializing in leasing deer hunting lands for the owners on a commission basis.

Now in his fourth season of leasing deer hunting land, Monticello realtor and insurance man J. S. "Chick" Wilson seems to be making a go of it.

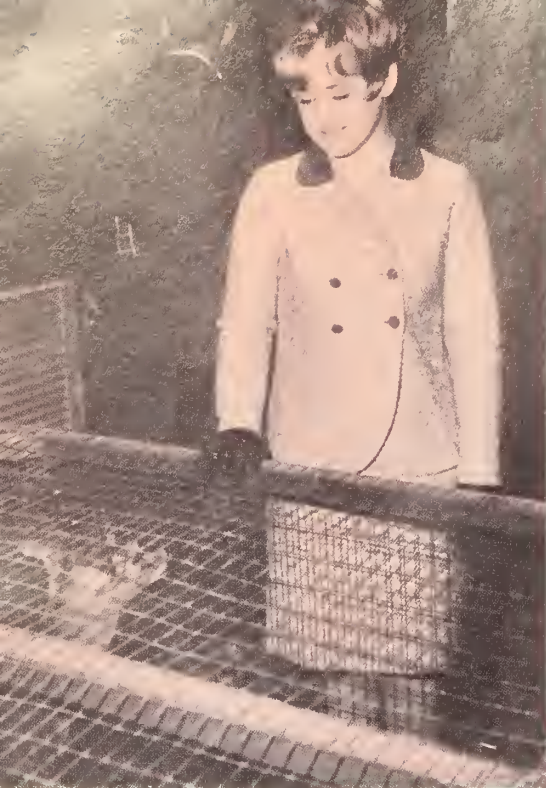
"I've got about 20,000 acres signed up with me available for lease this fall," Wilson reveals. "It leases for \$1.25 an acre. The landowner gets 80 cents of that. Many of them are absentee owners or have large tracts that they don't have the time to handle themselves. They have found that letting me handle publicizing it, showing the land, and handling the details of the lease is an advantage to them."

"Under the terms of my standard lease, the land is available to the hunters from September 1 to March 31 for hunting any game in season recognized by the State Game and Fish Commission, but mostly it's for deer hunting. Hunters scout it in September, bow hunt in October, and gun hunt in November. Then they might do some squirrel hunting or rabbit hunting in December, January, or February."

"Hunters like to lease through me because I have maps of all the land in my office, and I carry them out to look the areas over. Once they sign up with me, they're guaranteed rights to renew the contract on the same property the next year, provided the landowner agrees. Usually, hunters want to stay in the same area if the hunting is good, because they know the land, have their camping area cleared off, and their tree stands are good for two or three years."

One disadvantage of his system, Wilson admits, is that landowners can lease directly with groups he has found for the landowner the following year. "Most of them don't back out on me after I make the first year's lease," Wilson says, "but there's nothing to stop them, if they want to go to the trouble of handling it themselves. In order to make any money, I need to handle it after the first year. After the initial leasing, my expenses aren't nearly as great."

In addition to his leasing activity, Wilson keeps a register of all of the individuals in groups that lease land through him. "Then if there's some emergency at home, hunters can be reached through me. I know where their tract is, and I go out and bring them in."



Which "deer" is the prettiest? Deer Festival Queen Judy Cannon exchanges glances with a young deer in the Game and Fish Commission's exhibit. This year's Festival with feature even more exhibits around the Monticello courthouse square.

"We used to fight deer hunters down here," Wilson says. "Now we welcome them. Everybody's happy, the deer hunters, and the landowners. Now they both come to me. Landowners aren't as bothered with trespassing or poaching. The lease relieves them of liability. Hunters are sure of not being overcrowded or having somebody get their stand first, and they can camp there, which some of the paper companies don't let them do. They feel safer knowing who they're hunting with."

Like most real estate people, Wilson handles purchases of land, and has sold some tracts to deer hunters, but the average hunter doesn't have the money. Land prices in Jasper County are increasing steadily. Timberland sells for \$133 to \$150 an acre, with cleared agricultural land much higher.

Wilson is also embarking on a project this year to run a hunting lodge for deer hunters, complete with guides, transportation, and meals, for \$50 per person per day, in groups of 10 to 20 hunters.

If I take less than 10, I have to wait until another small group signs up to make it worthwhile," Wilson says. Two days is the minimum stay. The lodge is located on Lake Jackson, but hunters hunt on 100 acres of land a mile away from the lake.

A hunting club is being initiated in the area. The owner of the club is John Farrar. The club is open to all.

Dykes family owns 2,500 acres of good deer hunting land where a Baptist church camp was once located on a 10 acre lake. Dykes has improved the property by hauling in sand for a beach, and refurbishing a barracks capable of sleeping 100 hunters, complete with restroom and kitchen facilities. He has made plans to furnish a cook to groups using the barracks, and may lease an additional 5,000 or more acres for deer hunting, if the demand arises. At the time this article was written, Dykes' plans had not been completed, but they centered around the possibilities of creating a private club with individual memberships to use the facility. He is also considering renting for short hunt periods to groups.

Other landowners have expressed similar ideas, including expanding into dove, quail, and duck hunting, along with fishing lakes. The potential is present for such recreational enterprises in the future in Jasper County.

What are the prospects for deer hunting this year?

"We've got one of the biggest deer crops we ever had," says Tillman. "We've got good hunting down here. If a man'll get out and hunt, he'll get one eventually. They don't always come to you, but if you'll stick to it, you'll succeed."

"We've got pretty good squirrel hunting, but not too much rabbit hunting. The doves weren't much this year. We've only got two fox hunters left in the county. We used to have about 25. They just got tired of their dogs chasing deer. They can't hunt here. We've only got about 10 or 12 coon hunters left. They've got deer problems, too."

One of the reasons that the Jasper deer population is so high is undoubtedly the quality of the law enforcement protection that wildlife enjoys there. "Tillman gets good cooperation there," says Whittington. "And he gets out and does a good job. They back him up, and make people put up stiff bonds."

"I can't complain about our sheriff, or the new one coming in," Tillman says proudly. "They help me anyway I ask them too. During the hunting season, they even put on six special deputy sheriffs to help me and the two regular deputies patrol."

"We've got a lot of poaching here, because we have a lot of deer. There's more of it this year than ever, mostly night hunting. We confiscated three cars in the last three weeks, one a week, made 25 cases, and got two deer. Some of the violators are local, some are from Eatonton, Buford, Sparta, Conyers, all mixed up, from everywhere."

Like a growing number of Jasper countians, Tillman thinks the influx of hunters into the county is good for the economy, but he is concerned that they obey the game laws, have permission

to hunt, and practice hunting safety.

"We get a \$100 bond for hunting or Sunday and for trespassing," Tillman notes. "That's slowed up the problem considerably, but it still goes on. These farmers with cows and horses get pretty upset when somebody they don't know trespasses on their property. If they lose one of their Angus or a whiteface they've really lost something. I know how they feel, and I agree with them. I own some property myself, and I'm sure hate to find one of them stretched out with a bullet hole in them."

"I investigated about five or six cow killings last year myself," Tillman said "and I heard of five or six more. Most of them were killed by night hunter who just saw a pair of eyes, or by 'sound' or 'brush' shots. Hunter should be especially careful to identify their target before they shoot it." Last year, Tillman arrested four hunters who had killed a \$600 Angus bull. The sentence of four years was probated in addition to a \$4,000.00 fine.

"We were pretty lucky on accident last year. As far as I can remember now, we didn't have a single person shot, although some fell out of trees and got hurt. People should be cautious, especially about shooting across a public road—it's illegal and dangerous."

"Another thing—people should remember to tag their deer. If they don't, we'll have to confiscate it. Hunters should get a copy of the game law and follow them. If they do, we're glad for them to hunt in Jasper County."

What's ahead in the future for Jasper County deer hunting? More of the same, only better, hopes Handy, Whittington, and Tillman. All of them think that more deer hunting will be necessary and possible in the future, as poachers and dogs come under better control. "We want the hunters to harvest the deer," says Handy. At the same time, complaints of crop damage by deer from landowners have become more vocal.

"It's nearly impossible to raise peaches or potatoes here," Tillman complains. "Now, they're even working on the corn." Vegetable crops in gardens and orchards are the hardest hit. While deer eat field crops like corn, wheat, and oats, the effect isn't usually noticed so much by farmers.

"In places, the habitat is getting thinned down," Whittington notes. "But deer are still bigger here than in most of the state, especially the Clark Hill area. Recently, two fellows I know from Greene County scouted an area in Jasper, and said they saw tracks bigger than any they ever saw in Greene County! And I thought there were some pretty good deer in Greene County!"

There's no doubt about it. The people of Jasper County have something to celebrate about.

Skin him with...A GOLF BALL?

By Charles M. Marshall
Game Biologist

The sharp crack of a single rifle shot had just shattered the early morning silence near my favorite deer stand.

At first, I sat there in disgust as I watched an unknown hunter move away from a large pine near "my" stand located on a large tract of paper company land. This intruder was a small man with silver gray hair. I assumed from his weathered face that he sported an honorary license in his back pocket.

My disgust quickly changed to interest as I watched his methodical actions. After carefully approaching the large buck which was shot in the neck, he rested the barrel of a well worn 30-30 against a low limb on a nearby beech tree. Several easy cuts with his pocket knife expertly opened the deer. He eviscerated the animal and placed the steaming heart and liver in a large plastic bag which he had brought for the occasion. A short piece of string provided an attachment for a deer tag.

The old pro removed a rope from around his waist and was about to tie it to the buck's antlers when I could find it no longer. I called to the man and he started walking toward him and his prize. He appeared dumbfounded at someone was near "his" stand. I introduced myself and offered him a hand in getting the buck to a logging road just over the next hill. He thanked me, picked up his old Winchester, and started up a well used deer trail.

We shared welcomed rest stops as I dragged his deer up the hillside. When we finally reached the road, the sun had begun to warm the woods. I started shucking garments as the old man walked up to the road to get his truck.

In about 15 minutes he rounded the curve in a beat-up 1950 model Chevy. The doors were flapping as he turned sharply to the left and prepared to back up to a water oak with a large low limb on one side.

I planned to help him load his deer and continue my hunt after he left and the forest sounds returned to normal. When he asked me to share a thermos of hot black coffee, I couldn't resist the temptation.

While we were drinking the java, I confirmed what I had already surmised, this man was a meat hunter! I didn't mean a violator—he was after meat for his table. He had the first step behind him. The meat was on the ground. The next step was to skin the deer and tie it to be hung in the local meat



plant. I was curious to know how he planned to skin the deer, so I asked if I might help. With a twinkle in his eye, he refused my help, but suggested that I stay and watch him. Now, I'd already skinned many a deer in my day, but since my morning hunt was shot anyway, I stayed. And I'm glad I did, because I witnessed a skinning as I've never seen before.

He quickly removed the front legs at the "knee" and the rear legs came off at the hock. The skin of each leg was split on the inside. Since he was not going to mount the head, a cut was made from the brisket to the small of the neck. He made a cut behind each ear and carefully removed the skin from about 8 inches of the neck.

A strong rope was tied around the deer's neck, then the other end was tossed over the stout limb and tied to the trailer hitch on his truck. As the

old truck moved forward the deer lifted from the ground and was tied in this position by a second rope.

His next series of actions beats all I've ever seen. From out of the glove compartment, he took an old practice golf ball and placed it under the 8 inch flap of skin removed from the neck. The lifting rope then was loosened and tied to the skin-covered golf ball and pulled tight at the hitch.

All this time I sat at the base of a sweet gum anticipating each step of his procedure but still doubting that it would work, and saying to myself "this I must see to believe."

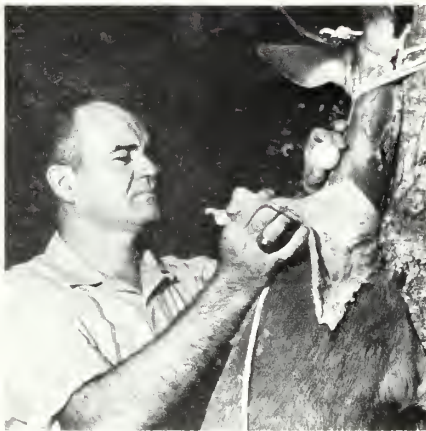
The old man grinned, crawled into his truck, and took off smoothly. In a state of acute concentration, I watched the hanging deer move toward the truck as the rope tightened. Then to my amazement the hide peeled from the carcass so fast it was hard for the eye



Skinning a deer like this is an easy trick—if you know the secret. Game biologist Charlie Marshall will show you how to do this in just a few simple steps.



Begin by cutting off the legs at the joints, then slitting the skin on the inside of each leg. Now cut the hide from the brisket to the lower jaw, and remove about



eight inches of hide from the upper neck by ordinary skinning methods. After hanging the deer, place the golf ball between the skin and flesh of the neck. Tie your rope around the skin covered ball, and attach it to your vehicle.



to follow. I stood up not believing what I had seen. But there was a clean carcass swinging to and fro from the limb, and a complete hide was still tied to the stout rope on the pickup. I examined the hide and found very little meat left on it. The carcass didn't have one hair on it since no dirty hands had touched it.

The truck was backed under the carcass, where the man wrapped a clean, but patched bed sheet around his meat. He loosened the rope holding the deer and lowered it into his truck. With a couple of well placed cuts, the head was removed and the carcass carefully prepared to be aged at the locker.

He grinned again.

The old man had skinned, wrapped, and loaded the carcass with no assistance from me. After we finished the last of the coffee, he bid me good-bye and wished me luck. He left with his prime venison and I left with a desire to skin a deer.

Most of the time when you chance upon something like this you don't have a camera to record the occasion. This was no exception, therefore, it was necessary to wait several years before I could get all elements together and try this unique method for myself. I was amazed at how easy the hide was removed. All of you deer hunters who find it difficult to skin a deer or anyone who wants to complete the job in a hurry should consider the procedure.

Thinking that some of you may want to try this unique method, I prepared the following short description entitled:

How to Skin a Deer With a Golf Ball

This title reminds me of a story written by George L. Herter entitled "How to Kill a Wild Boar with a Shirt." For those of you who haven't heard this story, Mr. Herter stated that you approach the hog until it notices you, then remove your shirt and make the hog charge by waving the shirt before him. As he makes his final lunge, calmly step to one side and hit him on the neck with a very sharp axe. That's how to kill a hog with a shirt, now let's consider the golf ball deer skinning procedure.

First, kill your deer and remove the entrails by conventional methods. Remove the front legs by cutting through the "knee" joint. The rear legs are cut at the hock. Split the skin on the inside of each leg. If you are *not* going to mount the head, split the hide from the rib cage to the lower jaw. Cut the skin around the upper neck joint behind the

ears. Carefully remove the hide from approximately eight inches of the neck. Tie a rope or chain around the deer's neck and attach to a stout limb or if you prefer not to lift the carcass this high, tie it to a nearby tree (See photo).

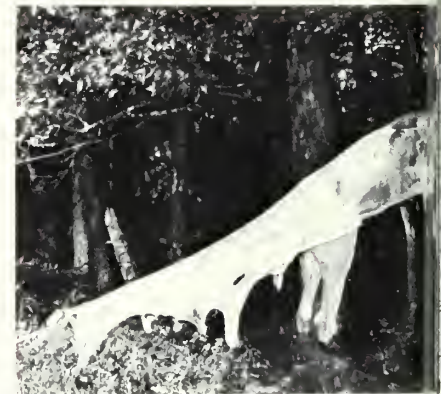
Now for the golf ball. Insert the golf ball, (a smooth rock will do) about 10 inches beneath the skin on the back of the neck. Tie one end of a stout rope around the skin-covered ball and the other end to an automobile or truck. Drive the vehicle away and the skin will rapidly separate from the carcass.

All hide and hair should be removed before taking the carcass to a commercial meat plant to be aged. Your last step, therefore, is to remove the tail and head. A clean cloth wrapped around the meat will help keep insect and dirt off the carcass during transportation to the locker.

With this description and the accompanying photographs, anyone can do a good, fast job of skinning a deer. If you try it once, you'll be compelled to show it to another deer-hunter.

It should be pointed out that if you are going to mount your trophy, don't split the hide up the neck. Instead make your cut just forward of the shoulder around the neck. Then proceed with the golf ball placed on top of the shoulder instead of the neck.

If you still think that both the old man and I are crazy, slip off by yourself and try it without an audience. Next time you'll want someone to roundup a crowd to see you perform the feat.



Upper Right:

Drive away and the hide will peel quickly from the carcass.

Lower Right:

It's off! With no strain, no pain!

Squirrels Move To Find Food

The squirrels are on the move in Georgia's mountains. By the thousands, the squirrels are abandoning the high ridges, moving down into the valleys in search of food.

Nature's timing appeared to be a little off this year for squirrels. Bill Collins, game biologist for the Game and Fish Commission's Calhoun District, said a bumper crop of squirrels were produced this year, but a late frost coupled with a summer drought has left little if any food for squirrels in the high country.

Consequently, the squirrels are in search of food and are moving into the valleys of the mountain country, attacking corn fields and any other food source they can find.

Collins said apparently the squirrels are staying in the mountain regions, however. There has been no effect on squirrels in any other section of the state.

Hunting should be excellent for squirrels this year, because they'll be out in the open more than usual, and at lower altitudes. Squirrels not harvested this year, are more likely than

usual to be victims of starvation, because of the food shortage.

Squirrels, Collins pointed out, feed primarily on nuts, acorn and similar tree products called mast. Mast crops were badly damaged this year. An excellent mast crop a year ago resulted in a high carry over through the winter of squirrels from last year, resulting in a very high population of squirrels this year.

However, because of the critical food shortage this year, the squirrel population is very probably headed for a sharp decline for the next two or three years, Collins said.

This natural phenomena is not unique, Collins pointed out. "This same thing happens just about every five or 10 years," he said. "It occurred last in 1964."

He pointed out that efforts of the public to feed squirrels during the winter would be entirely wasted. "There are just too many of them. There'd be so little food out that it really wouldn't help at all. Squirrels must find their own food in a natural way. When food isn't available, there comes about a decline in population. This may sound a little cruel, but this is simply nature's own way of balancing itself out."

Great numbers of squirrels have been seen on the move in mountain areas, he said, especially in the area around Ellijay, Blue Ridge and Blairsville. "The other day I went from Ellijay to Blairsville, and on the way I counted three squirrels running across the road in front of me, and saw 10 others that had been killed by cars, in a distance of perhaps 40 or 50 miles. It is very un-



common to see so many in that space of time."

Squirrel season opens in Georgia October 14 this year, and remains open through February 28, 1969. The bag limit is 10 squirrels daily.

Dean Wohlgenuth

Sportsmen Urge Defeat Of Constitutional Amendment

■ The president of Georgia's largest conservation group has urged defeat of a constitutional amendment giving senators and representatives a stronger role in naming members of the State Game and Fish Commission.

James L. Adams of Stone Mountain, president of the Georgia Sportsmen's Federation, called Amendment 14 on the general election ballot an effort to inject more politics into the operations of the Game and Fish Commission.

"This is a backward step," Adams said. "We need to give the sportsmen of our state more representation, not less. If members of the Commission must be appointed by the Governor from a list of three submitted by senators and representatives in each district, more politics and not less will

Continued on Page 16

Continued from Inside Front Cover

s scheme, it is my opinion that Georgia would be selling its birthright for a bowl of soup, just as Esau did in the Bible. This company masquerades in sheep's clothing, but they are the wolf in disguise, ready to feast at our expense. Under the terms of this proposed lease, Kerr-McGee would be authorized to remove more than 100 million dollars of fill dirt from state property, in return for a minimum payment to the state of only two million dollars over the entire 20-year period of the lease. This material would be obtained at a fantastically low cost, regardless of whether or not the company ever mined for phosphates at all.

Exactly how valuable the real estate would thus be created would be difficult to determine. It is certain that these lots would be far beyond the ability of the average Georgian to buy, even though he would be paying the bill!

A Kerr-McGee spokesman, senior Vice President Tom Seale, at Brunswick, Georgia, July 24, 1968, stated at meeting that land development is the

second phase of this proposed operation. In view of additional statements by that company that the phosphate deposit is marginal, and in *Fortune Magazine* that the phosphate market is glutted, we wonder if the primary objective is land speculation and development, at the expense of the Georgia tax payer.

I ask you to determine for yourself the true magnitude of the giveaway program proposed by Kerr-McGee, using their own figures. They have proposed to fill a 16,000 acre area with state-owned fill from 22,300 acres of state-owned underwater lands. According to the company itself, they propose removing 80 to 120 feet of overburden or fill material lying above the phosphates. There are 1,660 cubic yards of fill contained in an acre foot. At an average depth of 100 feet of overburden, 166,000 cubic yards of fill material per acre would be available to the company. Using the minimum price of three cents per cubic yard paid by the State Highway Department on State projects, this total of over four billion cubic yards of fill material available to

the company would be worth at least \$124,000,000! This means Kerr-McGee would pay the state of Georgia less than two per cent of what this material is actually worth.

If we compute this figure based on the top price paid by the State Highway Department of 15 cents per cubic yard instead of three cents, fill material available for the taking by Kerr-McGee would be worth a staggering \$622,000,000! All this at a cost to the company of only a total of \$2,070,000 in 20 years, without mining an ounce of phosphates! By taking the Georgia taxpayer's property at a pittance, Kerr-McGee can reap a fabulous profit, at our expense.

After making a careful study of the terms of this lease, our Department concludes that Kerr-McGee proposes the greatest giveaway program of Georgia's state-owned lands that has been proposed since the infamous Yazoo Fraud. This boondoggle is an outrage to the people of Georgia, and I urge you to reject this 100 million dollar giveaway without qualification.

be added to the Commission," Adams said.

"It is a well known fact that in states with political domination of their wildlife conservation programs, poor game and fish departments are usually the result. We don't want that to happen in Georgia. If it does, the recommendations of our professional game and fish biologists will take a backseat to politics," Adams charged.

"Expanding the number of the members of the Commission as called for in Amendment 14 from 11 to 13 or 15 members is not a progressive step," Adams said. "A larger commission with more members would be more cumbersome and less able to reach effective decisions than a smaller one like we now have. This amendment would also shorten the commissioners' terms from seven years to four."

Himself a lawyer, Adams also attacked the proposed amendment on the grounds that its wording is contradictory on the number of commissioners that could be appointed to the proposed new Game and Fish Commission.

"In the title of the amendment, it calls for a 15 member commission. However, the provisions of the bill only provide for methods of selecting 13 commissioners, not 15," Adams pointed out. "Thus the amendment in its present form might well be subject to misinterpretation. It should be thrown out by the voters on this basis alone," Adams said.

The amendment in question appears on the November 5 state-wide general election ballot among the general amendments to the Georgia Constitution, numbered 14. Voters are asked to vote either "YES" or "NO" to the question, "Shall the Constitution be amended so as to provide for the creation of a new Game and Fish Commission?"

Voters were urged to vote "NO" on the amendment by both Adams and the Board of Directors of the 6,500 member Georgia Sportsmen's Federation, a coalition of more than 66 Georgia hunting, fishing, boating, and conservation clubs.

At present, members of the State Game and Fish Commission are selected by the Governor for seven year terms and confirmed by the State Senate. One commissioner is named from each of the 10 congressional districts, plus one member from the Georgia coast. The proposed amendment would increase the membership of the commission to either 13 or 15 members, depending on the interpretation of the bill, with the Governor naming extra members. The main effect of

the bill is to provide that the governor could only name commissioners from each congressional district from a list of three nominees provided him by the State senators and representatives in each district, and that such commissioners could be removed from office by the Governor only at the will of the legislative delegation in their district.

Sportsmen Speak...



Booby Trap?

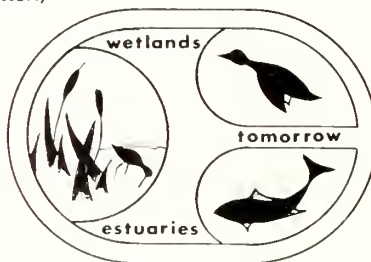
Enclosed you will find a picture of a deer recently found in a wooded area about five miles south of Sylvester, Worth County. There had been a clearing of some timber area in this section and evidently some of the machinery used some $\frac{3}{8}$ " cable and a short piece, about thirty feet, was discarded. This deer got the piece of cable tangled in his antlers and was running through the woods when the cable caught on a tree. In his efforts to free himself, he went around the tree several times and finally got two of his legs tangled in the cable. When I found the deer, it probably had been dead for about a month, and as you can see from the picture, he was in a sitting position. I thought you might like to have this picture. Maybe you can use it in your magazine. The picture was made by Mike Deriso, Sylvester, Georgia.

Ranger James Sherling
Sylvester, Georgia

Phosphates, Wetlands

I have just finished reading, with much interest, your news release of September 16, "Bagby Says Phosphates' \$100 Million Giveaway." As you are probably aware, we have the same problems, or similar ones, here in North Carolina. I thought I would send you a couple of recent articles... there's some consolation in company, maybe.

I would also like to tell you about a new organization here in the state: Wetlands and Estuaries for Tomorrow. This is a private, non-profit conservation organization devoted specifically to the problems of marshes and swamps (although, naturally, they get caught up in water pollution, pesticides, and all the other dominoes that fall when one begins to totter.)



This group was formed in April of this year by 12 duck hunters. Since then it

has grown to a membership of over 100, affiliated with the state Wildlife Federation, and is beginning to make its voice heard throughout the state. Most of the founders (I was one) are younger guys but we now have lawyers, a former gubernatorial candidate, retired military personnel, doctors: in short, all ages and economic levels... even a few women have joined. I mention this group to you because sometimes an "aroused" citizens' group can apply more political pressure for a conservation cause than the combined state conservation agencies can. We hope to get some sensible estuarine laws passed here during the next legislature... but it's going to be quite a fray. Anyway, maybe you could encourage some of your friends to join.

Anyway, I guess the main reason I'm writing is that marshland is one of my favorite hobby horses and it bothers me to see good marsh endangered, in North Carolina or Georgia. Let me know how the battle goes.

Sincerely,
Tom Jackson
Wildlife Education Representative
North Carolina Wildlife Resource Commission, Raleigh, N. C.

Mad Hunter!

I see that you people have managed to stack the opening of deer season against the working man and in favor of the politicians, executives, poachers, and the thousands covered by Civil Service who can always take a few days of annual sick leave to go hunting.

The condition of the national, and state Democratic party is a good example of what happens when you start stacking the deck against the majority in favor of the minority.

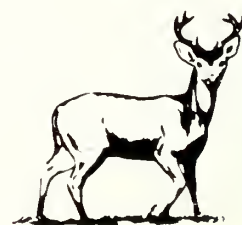
I have always been a supporter of Game and Fish Department and am in sympathy with your programs. However, this is one time I can't go along with you. Our hunting club, all working men, planned our usual hunt for the first weekend in November as usual, and we still plan to carry on. We did not lose 800 acres for the benefit of the few who can hunt during the work week.

Yours for better planning next year
R. L. Rothell, Jr.
Atlanta, Ga.

P. S. Rankin Smith seems to be making the same type decisions as a member of the Commission as he is as owner of the Falcons football team.

What can we say after that!

The opening date of deer season has been changed in favor of the working man. It now opens Nov. 2 in all counties originally set to open Nov. 4. (And the Falcons have a new coach!)



Sportsman's Calendar

SEASONS NOW OPEN RUFFED GROUSE

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.

RACCOON

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.

SEASONS OPENING THIS MONTH

BEAR

Season—November 4, 1968 through January 2, 1969 in Brantley, Charlton, Clinch, and Ware counties.

DEER

Season—November 2 through November 1, 1968 or January 2, 1969, depending on area regulations.

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.

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.

S. E. Ga. Season—November 23, 1968 through December 7, 1968, in Camden County.

S. E. Ga. Bag Limit—One (1) turkey gobbler.

BLACKBEARD NATIONAL

WILDLIFE REFUGE

Archery hunt for deer; either sex; bag limit—2 deer; Nov. 27-30, 1968; Dec. 30, 1968-January 2, 1969. Archery hunt for turkey gobblers; bag limit—two per season: Same dates as deer hunt. Raccoons may also be taken on the above hunt periods. Applications for the Nov. hunt must be made by Nov. 20, and for the Dec. hunt by Dec. 23. Write to the Refuge Manager, Savannah National Wildlife Refuge, Rt. 1, Hardeeville, S. C.

SEASONS OPENING NEXT MONTH

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 2 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.

COMING EVENTS

Annual Convention of the Georgia Sportsman's Federation, Dec. 7, 8. Dempsey Hotel, Macon, Ga. Non-members invited at regular registration fee.

STATE MANAGED AREA HUNTS

(See page 4)

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.

NOVEMBER 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1. Fri	5:18	7.2	5:48	7.3	11:24	11:42
2. Sat	6:06	7.6	6:30	7.3		12:12
3. Sun	6:42	7.9	7:06	7.2	12:24	12:54
4. Mon	7:18	8.0	7:42	7.1	1:06	1:36
5. Tues	7:54	8.0	8:12	6.9	1:42	2:18
6. Wed	8:30	7.9	8:42	6.6	2:24	2:54
7. Thurs	9:00	7.8	9:12	6.3	3:00	3:30
8. Fri	9:36	7.6	9:48	6.1	3:36	4:12
9. Sat	10:12	7.3	10:30	5.9	4:12	4:48
10. Sun	10:54	7.1	11:18	5.7	4:54	5:30
1. Mon	11:42	6.9			5:36	6:24
2. Tues	12:06	5.7	12:36	6.8	6:30	7:12
3. Wed	1:06	5.8	1:30	6.7	7:36	8:12
4. Thurs	2:06	6.1	2:30	6.8	8:36	9:06
5. Fri	3:06	6.5	3:24	6.9	9:36	10:00
6. Sat	4:06	7.0	4:24	7.1	10:30	10:48
7. Sun	5:00	7.6	5:18	7.3	11:24	11:36
8. Mon	5:54	8.2	6:12	7.5		12:18
9. Tues	6:42	8.7	7:00	7.6	12:24	1:12
10. Wed	7:36	8.9	7:48	7.6	1:12	2:00
1. Thurs	8:24	8.9	8:36	7.4	2:06	2:54
2. Fri	9:18	8.7	9:30	7.1	3:00	3:48
3. Sat	10:12	8.3	10:30	6.8	3:54	4:42
4. Sun	11:12	7.9	11:30	6.6	4:48	5:30
5. Mon			12:12	7.5	5:48	6:36
6. Tues	12:36	6.4	1:18	7.1	6:48	7:42
7. Wed	1:42	6.4	2:18	6.8	8:00	8:42
8. Thurs	2:48	6.5	3:18	6.6	9:06	9:36
9. Fri	3:48	6.7	4:18	6.5	10:06	10:24
10. Sat	4:42	6.9	5:12	6.4	10:54	11:12

TIDE TABLE

Nov.—Dec. 1968

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)	0	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

	New Moon	Full Moon	Last Quarter	First Quarter
NOVEMBER	5	13	20	26
DECEMBER	4	13	19	26

DECEMBER 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1. Sun	5:30	7.2	5:54	6.4	11:42	11:48
2. Mon	6:18	7.4	6:36	6.3		12:30
3. Tues	6:54	7.5	7:12	6.3	12:30	1:12
4. Wed	7:30	7.5	7:42	6.2	1:12	1:54
5. Thurs	8:00	7.5	8:18	6.0	1:54	2:30
6. Fri	8:36	7.4	8:54	5.9	2:30	3:12
7. Sat	9:12	7.3	9:30	5.8	3:12	3:48
8. Sun	9:48	7.1	10:06	5.7	3:48	4:24
9. Mon	10:30	6.9	10:48	5.7	4:30	5:06
10. Tues	11:18	6.8	11:42	5.8	5:12	5:48
11. Wed			12:00	6.6	6:00	6:36
12. Thurs	12:30	6.0	12:54	6.6	7:00	7:30
13. Fri	1:30	6.2	1:48	6.5	8:00	8:24
14. Sat	2:24	6.6	2:42	6.5	9:00	9:18
15. Sun	3:30	7.0	3:42	6.5	10:00	10:12
16. Mon	4:30	7.4	4:48	6.7	11:00	11:06
17. Tues	5:30	7.9	5:42	6.8	11:54	
18. Wed	6:24	8.3	6:42	7.0	12:00	12:48
19. Thurs	7:18	8.5	7:36	7.0	12:54	1:48
20. Fri	8:12	8.5	8:30	7.0	1:48	2:42
21. Sat	9:06	8.3	9:24	6.9	2:48	3:36
22. Sun	10:00	8.0	10:18	6.7	3:42	4:24
23. Mon	11:00	7.6	11:18	6.6	4:36	5:18
24. Tues	11:54	7.2			5:30	6:12
25. Wed	12:18	6.5	12:48	6.7	6:30	7:06
26. Thurs	1:18	6.4	1:42	6.3	7:30	8:00
27. Fri	2:12	6.4	2:36	6.0	8:30	8:54
28. Sat	3:06	6.4	3:36	5.7	9:30	9:42
29. Sun	4:00	6.4	4:24	5.6	10:24	10:30
30. Mon	4:54	6.6	5:18	5.6	11:12	11:18
31. Tues	5:42	6.7	6:06	5.6		12:00



GEORGIA

VOL. 3, NO. 12 / DECEMBER, 1968

GAME & FISH



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GEORGIA

GAME & FISH

December 1968

Volume III

Number 12



The Mountain Lion Trophy Conservation Communications Award—1967
The Georgia Sportsmen's Federation

Contents

Rabbit Riddle	Marvin Tye	1
The Marshes of Chatham	George T. Bagby	4
Dove Dilemma	Dean Wohlgemuth	10
Hounds of Hell	Jim Morrison	13
Outdoor World		20
Sportsman's Calendar		21
Tide Table		21

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PRESERVE MARSHES NOW!

The most encouraging development to come out of the controversy over proposed phosphate mining on the Georgia coast is the good news that something is being done to see that it will never happen again.

The "something" is a proposed State law to preserve the marshes of Georgia, being drafted by State Representative Reid W. Harris, a Brunswick attorney who is chairman of the special Estuarine Study Committee recently appointed by House Speaker George L. Smith.

Aroused by the prospect that one-twelfth of the Georgia coast might be turned over to a private company for destruction, Harris has begun an in-depth study of the value of marshlands and what can legally and administratively be done by the State to preserve them. In this regard, he has surveyed what is being done in the other coastal states, and is making a detailed study of their laws affecting the uses made of marshlands and acquisition programs of the various states. After studying the information and conferring with conservation agencies, state and local governmental officials, and members of the general public, Harris plans to draft legislation for presentation to the next session of the General Assembly.

While the exact provisions of the Harris bill have not yet been finalized, the current thinking of its author closely parallels that of conservationists in Georgia and other states. Harris agrees with biologists and conservationists that Georgia's marshlands and offshore bottoms are an invaluable natural asset at least two and a half times as productive as the best farmland. He recognizes the growing need for the marshes and coastal waters for recreational as well as seafood producing areas today and in the future.

Harris believes that Georgia should have a law similar to Massachusetts to preserve its marshes and estuaries in their natural state. He feels that filling, dredging, and otherwise altering the natural character of the estuaries should be prohibited, except by special permits issued through a local governmental agency subject to review by a conservation dominated state control board. Harris says this Coastal Wetlands Control Board should have a representative of the State Game and Fish Commission, the Water Quality Control Board, and Natural Areas Council, and two other conversation minded representatives. The State Mines, Mining, and Geology Department should not be a member of such a board, Harris feels. It is a member of the Mineral Leasing Commission, an unrepresentative board with dangerous authority that should have less independence. Harris proposes giving the General Assembly the power to approve or reject any leases made by the Mineral Leasing Commission, which is required for any actions of the State Properties Control Committee, which is composed of more elected officials.

Next, Harris believes the problem of ownership of marshlands should be solved through a state-financed title search of all marshlands to determine who their true owners are.

Continued on page 26

ON THE COVER: Mourning Doves sweeping into a Georgia field with the opening of the second half of the season, December 6, through January 15. For more on doves, see "Dove Dilemma" by Dean Wohlgemuth on page 10. Painting by George Reiney of Columbus.

ON THE BACK COVER: A cottontail rabbit, sitting in a country lane. You can almost see the light shining through his translucent ears. Where have Georgia's rabbits gone? See the "Rabbit Riddle" by Marvin Tye on the next page. Color photo by Ted Borg, the talented photographer of *Game & Fish*.

PHOTO CREDITS: Ted Borg 1, 4, 6, 7, 9, 11, 12, 14, 17
Dan Keever 2, 3, Jim Morrison 10, Marvin Tye 20, Dean Wohlgemuth 15.

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RABBIT RIDDLE

Where Have all the Rabbits Gone?

By Marvin Tye



■ The number one target of hunters throughout the country is the cottontail rabbit. This fine little game animal can be taken by hunters using shotguns, small caliber rifles, or bows and arrows. In addition to providing plenty of sport, the cottontail is also pretty tasty table fare when correctly prepared.

Although the cottontail is found in all of the United States except Alaska and Hawaii, its popularity in Georgia seems to fall behind that of the quail and possibly the deer. The main reason for this lack of popularity is that the rabbit population in much of the state has been steadily decreasing for many years. Why? A study of the Georgia cottontail financed by the Georgia Game and Fish Commission and made by Dr. Michael R. Pelton, assistant professor of forestry at the University of Tennessee, should shed some light on the reasons.

Dr. Pelton conducted his study from October 1965 through April 1968. At that time, he was a student at the University of Georgia. Working with Dr. Pelton on this project were Dr. James H. Jenkins, professor of wildlife management at the University of Georgia, and Dr. E. E. Provost, associate professor of wildlife management at the University of Georgia. During the test period, 1,158 cottontail rabbits were collected from three major physiographic regions of Georgia: mountain, Piedmont, and coastal plain. These rab-



bbits were examined to detect body weight and body and skull measurements comparison on a regional basis. The breeding habits, general health and other factors were also examined. In general, a complete life history study was conducted on the rabbit population in Georgia.

This study showed that cottontails in Georgia breed from February to September. The young rabbits are born 28 days after mating. April and May appear to be the peak months for rabbit reproduction. Rabbits in this state produce about eight litters per year, averaging three offspring per litter. This means that a single female rabbit here will produce 24 offspring per year while a rabbit in Missouri will produce 45. This could be because there is a higher mortality rate in Missouri due to the severe winters. Lower soil fertility in this area could also affect the litter size.

Since rabbits produce such a large number of offspring, it would seem that there should be plenty of them. There are several factors that limit the number of rabbits. The average cottontail lives less than one year. Practically every predatory animal in the wild will eat rabbits. They are prey of bobcats, foxes, hawks, owls, weasels, snakes and others. Free-ranging dogs and feral cats are a big factor in keeping the rabbit population at a low number.

Hunting pressure has little if any ef-



Hunters throughout the United States spend more time pursuing the cottontail rabbit than any other game animal. Georgia hunters do not have the chance to enjoy as much of this exciting sport as they should. Changing land use and loss of habitat are the main reasons for the decrease in the state rabbit population.

Dr. Michael R. Pelton of the University of Georgia collected 1,158 Georgia cottontails during a three-year period beginning in 1965 as a part of a Game and Fish Commission research project. Rabbits were collected from the mountain, piedmont, and coastal plains regions of Georgia to compare physical characteristics and reproduction rates.





Left: Dr. E. E. Provost, associate professor of wildlife management at the University of Georgia, observes as Dr. Pelton examines a cottontail specimen in a laboratory at the University of Georgia. The scientists concluded that restocking rabbits was not the answer. Habitat improvement seems to be the best way to increase the rabbit population.

Far left: The farmer who allows some areas to grow up on his land will not find a bunny under every bush, but his chances of finding game will improve, the Commission study concluded.

feet on rabbit numbers. Those taken by the hunters would probably have died of natural causes or been killed by predators if they had not been bagged. It is a strange fact of nature that almost any species of wildlife will be found in suitable habitat in the numbers that habitat will support. There will not be too many or too few, except for limited times with big game species like deer and turkey.

According to Dr. Pelton, the problem in Georgia is one of insufficient habitat. Changing land use is a big factor. During the past 10 years more than 23,000 small farms have been abandoned. More than 40% of this land has been converted to pine plantations.

"A rabbit needs food and cover to survive," Dr. Pelton said. "Pine plantations do not provide this sort of habitat. When available cover is removed from the land, the rabbits are exposed to the elements and to predators. They are also more likely to be affected by parasites and disease."

"Restocking rabbits into these areas is not the answer," Dr. Pelton said. "If there is not sufficient habitat the rabbits will not survive. Restocking rabbits may also carry diseases from one area of the state to another."

According to Dr. Pelton, the best way to increase the rabbit population is to improve the habitat. This can be achieved through controlled burning on pine plantations and providing escape cover such as brush piles and briar patches. He also believes that cover should be allowed to grow along power-line rights of way, fences, creek banks, and field borders and that small-game management areas should be created, especially near large human population centers. These management areas would provide recreational hunting, provide controlled research areas for biologists,

and provide examples to the public on ways to manage for better small-game populations.

The farmer can help by creating brushpiles along the edges of fields and in other edge-type areas. The piles should be 10 to 15 feet in diameter and 4 to 6 feet high. Permanent strips of food and cover should also be added and maintained for continuous good rabbit hunting.

Several small patches of brush and food are better than one large patch of each. Strips left along fence rows, drainage ditches, pond edges, streams, along wood lots and orchards, field roads, or any area that can revert to weeds, briars, sumac and other brush will benefit the rabbit population. Food strips planted beside the cover will help in erosion control as well as helping the rabbits. Oats, wheat, and other small grains provide food during the winter, while lespedezas provide nourishment during the spring and summer. All types of clover are good for rabbits.

Landowners can obtain recommendations on planting and other agricultural practices from their county agent or from Game and Fish Commission biologists. An excellent guide to rabbit management, "How to Have Small Game on Your Land," can be obtained by writing the State Game and Fish Commission, 401 State Capitol, Atlanta, Georgia 30334.

To summarize the findings of Dr. Pelton and others, it seems that the cottontail's biggest problem in Georgia is finding the proper habitat. Restocking is not the answer and seems to bring more problems than it solves. Heavy hunting pressure doesn't seem to bother the little animals, so if you're a landowner, improve the habitat as best you can and enjoy some exciting hunting and good eating.

*"A league and a league of marsh-grass,
waist high, broad in the blade,
Green, and all of a height, and
unflecked with a light or a shade,
Stretch leisurely off, in a pleasant plain,
To the terminal blue of the main . . .*

*Oh, What is abroad in the marsh and
the terminal sea?*

*Somehow my soul seems suddenly free
From the weighing of fate and the sad
discussion of sin*

*By the length and the breadth and the
sweep of the marshes of Glynn . . .*

*Oh, like to the greatness of God is the
greatness within*

*The range of the marshes, the liberal
marshes of Glynn."*

Sidney Lanier

"The Marshes of Glynn"

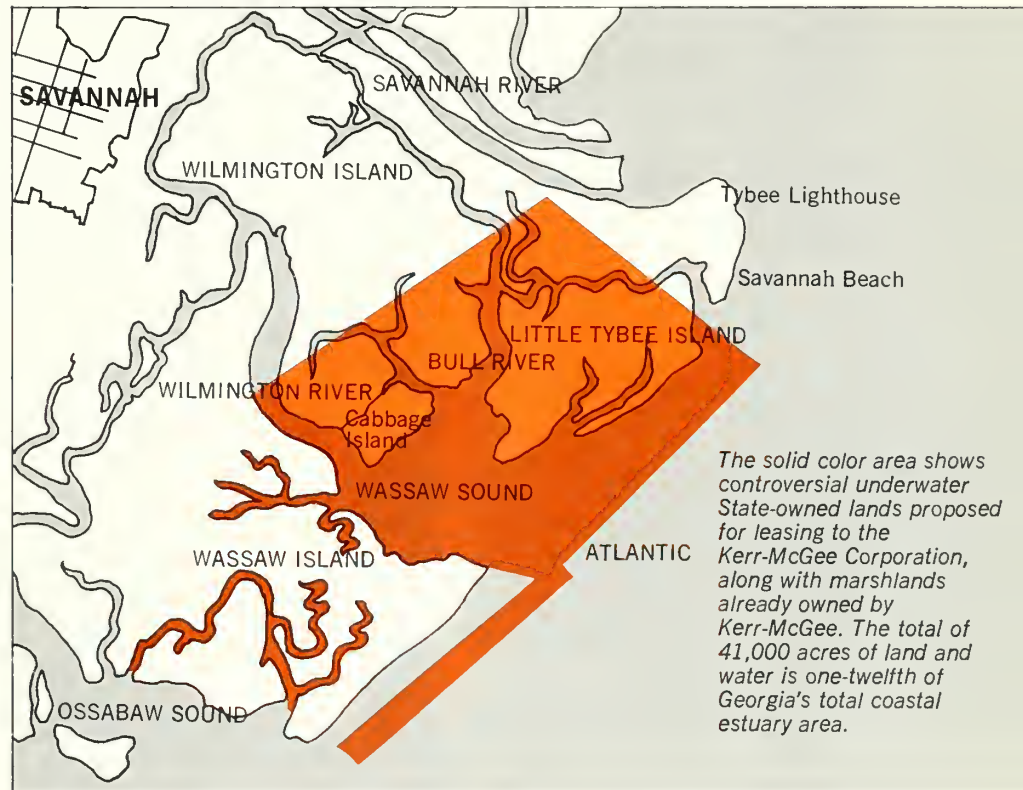
Will the Jeanne M and other Savannah shrimp boats be able to catch shrimp in Wassaw Sound if the State Mineral Leasing Commission allows offshore phosphate mining there? Biologists of the State Game and Fish Commission say the potential loss to Georgia's commercial fishing industry may exceed \$9,451,000.00 a year in economic benefits.



THE MARSHES OF CHATHAM

By George T. Bagby
Director, State Game and Fish Commission

*Statement by George T. Bagby, Director of the State Game and Fish Commission to the public hearing of the State Mineral Leasing Commission held September 30, 1968, at Savannah, Georgia, concerning proposed leasing of offshore state lands in Chatham County to the Kerr-McGee Corporation.



■ Sidney Lanier in that immortal poem, "The Marshes of Glynn," written many years ago, I am afraid, better understood the value of this God-given resource than many of us do today. I am not a poet. I'm just a simple country boy from Paulding County, who grew up with a father who liked to hunt and fish, and who taught me to appreciate these wonderful gifts of nature that our Creator made for us.

My father didn't live long enough to share much of those gifts with me. I wish that he were alive to have had the wonderful opportunity that I have now of seeing the beauty of the Georgia coast, and enjoying the bountious harvest from it. I know that he would have wanted me to do everything in my power to see that our children, grandchildren, and great grandchildren, would always be able to share this great coast of ours, just as we have done within our own lifetimes.

I am proud to be able to help defend the Marshes of Glynn, and of Chatham, from destruction. Destruction is what it will be if the proposed lease is granted to the Kerr-McGee Corporation.

The power to save this important portion of the Georgia coast is in the hands of the Mineral Leasing Commission, and the decision is theirs to make. As fellow citizens and officials of the State of Georgia, I want to believe that the Mineral Leasing Commission will make its decision based on what is best

for the greatest number of our people, over the longest period of time.

I want to believe that the Commission will seriously weigh the overwhelming evidence that has been accumulated in opposition to this unwise mining scheme, and vote unanimously to reject any and all bids to mine any portion of the Georgia coast.

The conservation agencies have been placed on trial here, when the shoe should be on the other foot. Kerr-McGee is the company that wants to rape the Georgia coast. Kerr-McGee and its owners are the people who will profit by exploiting our state-owned lands, yet they have never once even contacted our department and offered any explanation of their plans. We should expect and demand full details of any of their proposed operations before any request for bids is granted. This should have been done before any request for bids was issued.

In the few bits and pieces of information that we have been able to gather before the Savannah public hearing, we are told that the company now owns 14,000 acres of tidal marshlands on Little Tybee and Cabbage Islands in Chatham County, and that it holds options to purchase approximately 2,000 more acres of marsh on Wilmington Island.

Now, the company proposes to lease approximately 25,000 acres of State-owned underwater lands. The combined marshland and water acreage under Kerr-McGee control would then be 41,000 acres, which is 7.8 per cent or almost one-twelfth of the entire Georgia estuary area of 520,000 acres of land and water.

Even from the scanty information that has been given us by Kerr-McGee, it is obvious that we are talking about the permanent destruction of at least one-twelfth of the marine resources of Georgia. This would result from the

proposed dredging from State underwater lands and filling company-owned marshlands. This is assuming that there is no water or air pollution that will spread to more than the area now controlled by the company or proposed for lease from the State of Georgia.

The value of these so-called "useless marshlands" that Kerr-McGee proposes to fill up is too great to carelessly ignore. It is a proven biological fact that these areas are the spawning, nursery, or feeding areas for 100 per cent of the shrimp, oysters, and clams harvested in the surrounding waters, as well as for 85 per cent of the fish.

We are talking about the destruction of *one-twelfth of the entire shrimp crop produced and harvested on the Georgia coast*. We are talking about the shrimpers losing one-twelfth of their income or spending 13 hours a day instead of 12 hours to catch the same amount of shrimp. What does Kerr-McGee propose that our fishermen do to make up for this loss? Do they think that shrimpers can put wheels on the doors of their nets, or rockets on their boats, so they can catch the same amount of shrimp in the same time that they do now?

And what about the people who eat this shrimp? Will they have enough of it in the future, after one-twelfth of our shrimping grounds have been destroyed? Last year, the average amount of shrimp available to each person in the United States was *only a pound and a half for the entire year*. When the population of the United States doubles, this amount will be only *three-fourths of a pound per person*, or less than one good meal of shrimp per year, even if all of our present shrimping grounds are preserved. Can we afford to reduce this amount even more? Will our grandchildren even be able to enjoy even one meal of shrimp at all?

The shrimp industry in Georgia over the past ten years has averaged producing 7,528,000 pounds of shrimp each year. The loss of one-twelfth of this amount would cost the State \$3,-485,400.00 each year.

By the same token, dredging and filling in Chatham County will ruin forever a potential oyster and clam fishing industry. Dredging and filling will destroy commercial finfish that in the near future may provide thousands of dollars of income for Georgia's commercial fishing industry. At least one-twelfth of the Georgia coast's production of these choice seafood items will be permanently destroyed. The story is the same for oyster fishermen, the crab fishermen, and for all commercial fishermen of the

Georgia commercial fishing industry. The loss is more than \$9,451,400.00 each year. Although it is still in its infancy, the industry of pollution and re-





Far left: Jeanne M owner Gordon Nelson of Savannah and his deck hand sort out their catch of shrimp. Georgia's annual shrimp harvest of more than 7,528,000 pounds would be reduced one-twelfth if mining is allowed to destroy the shrimp nursery areas in the marsh, a potential economic loss to Georgia of \$3,485,400.00 a year for shrimping alone.

Left: Speckled trout and channel bass fishing is excellent in threatened Wassaw Sound. Thousands of Savannah residents like Degan Hardt and C. E. Brigdon spend their leisure hours there. Recent studies by marine biologists indicate that Georgia's tidal marshlands are more productive than the best wheat lands. The fertility of the marsh mud and the grasses growing on it is measured in millions of dollars of benefits through the production of seafood, sport fish and wildlife, recreation, and storm protection.



Two public hearings held on the proposed lease by the State Mineral Leasing Commission in Atlanta and Savannah were jammed with indignant opponents of phosphate mining. Coastal residents, commercial and sport fishermen, professional conservationists, and ordinary citizens were almost unanimous in their opposition to leasing State bottom lands.

search will greatly increase the productivity of the Georgia coast for commercial fishing in the near future. For example, in September of this year, 10,000 acres of Georgia's saltwater rivers and creeks were opened for oyster harvest by the State Health Department, the Water Quality Board and the State Game and Fish Commission. This includes a portion of the Tybee River and part of the Shad River. In 1908, Georgia had an oyster harvest of 1,436,000 bushels compared with only 50,000 in 1967. The 1908 harvest could be repeated again as pollution is cleared up, and modern methods of oyster production are implemented. If so, the value of the Georgia oyster harvest loss would amount to \$1,707,440 a year at current market prices.

That these resources will be developed beyond their present level is already indicated from research discoveries of our Commission's Marine Fisheries Division and Anadromous Fish Project. The annual budget for these two activities alone is now more than \$140,000 a year. This does not include figures for the University of Georgia's Marine Institute at Sapelo Island. The first marine biologist for Georgia was only hired three years ago. Studies are being made on methods of improving the catch of shrimp, oysters, clams, crabs, and commercial sport fish.

For example, one of our research projects just completed has scientifically demonstrated that Georgia has a potential untapped clam industry that, if developed, could yield several million dollars a year alone!

The potential value of commercial fishing has scarcely been tapped on the Georgia coast. Now, clams are not

harvested at all. Neither are many valuable finfish, including menhaden, herring, whiting, mullet, flounder, croaker, butterfish and mackerel.

Not even counting the potential for the future of commercial fishing on the Georgia coast, destruction of one-twelfth of our estuary based on present figures alone will result in the loss of \$9,451,400 million dollars a year, year after year, to the economy of the State of Georgia.

As disastrous as the effects of this operation will be on Georgia's budding commercial fishing industry, I have not yet mentioned the havoc that marsh filling will do to sport fishing. Sport fishing provides almost as great a contribution to the economy of our state as does commercial fishing. Saltwater sport fishing is still in its infancy, too; and forces that will greatly accelerate its amazing future potential are already active at work.

At the present time, there are more than 281,416 resident sport fishermen alone on the Georgia coast. They fish a total of 3,810,373 man-days a year and catch a total of 22 million pounds of fish a year. The loss of one-twelfth of this total a year would be \$6,248,600.00 a year lost forever at current levels.

The sobering fact is that using the current figures only, *Georgia stands to lose \$15,700,000.00 a year now from its yearly marine resources!* While we can visualize the incredible worth of some of our marine resources within the years to come, the figure in many cases is impossible to compute. If we could fully determine the true potential treasure that is locked up on the Georgia coast's sprawling undisturbed marsh-

lands, we would not hesitate a moment in rejecting this proposal to destroy one-twelfth of our State's finest natural resource area forever. Based on anticipated use, the loss in economic benefit to the State of Georgia by the year 2020 will amount to \$60,000,000 annually!

I want to emphasize that the figures I have given are for destruction of one-twelfth of the Georgia coast only. They do not cover the much larger area that most likely will be polluted by any mining operations involving underwater dredging. We do know that there are currents in this area from the sea that will probably return any items dumped in the ocean to the shore. Research by the U. S. Army Corps of Engineers has already demonstrated that sediment deposited in the ocean by Georgia rivers is carried southward along the shoreline by tidal currents. This means that siltation from mining in Chatham County waters probably would choke aquatic life in thousands of acres of marshlands and estuary areas in the counties to the south. Probably, they would coat them with killing deposits of lifeless material.

These matters are to be greatly feared by themselves. The exact methods Kerr-McGee proposes to process the phosphates and where this will be done have not been clearly revealed. There are further possible threats of water and air pollution from chemical, thermal, bacteriological, or siltation processes that could be extremely difficult to treat.

Regardless of that, it is a proven fact that dredging in the shallow offshore waters and filling of the surrounding marsh areas would completely destroy the production of seafood and most sportfish in the areas involved. Areas covered with inferior subsoil or inert rock or other material will not produce aquatic organisms. Thus, the dredging will destroy the food chain of important aquatic species that fish and shrimp feed on. By the same token, the wintering ground of 9,100 ducks and uncounted marsh hens would be destroyed.

Today, the marshes and estuaries of Chatham County and the rest of the Georgia coast produce a bountiful annual crop of seafood and recreation that is harvested by our people. These estuaries will continue to produce this crop for harvesting every year, year after year, for a million years, unless like the Indians of Manhattan Island, we trade it off for a chest of trinkets. Each year, the value of this harvest that we get from the sea on our shore will increase in value, unless we exchange it for a small harvest of cheap phosphates and a small housing project.

Unlike the sheep, our marsh resources are not a one-time sale. Their story is the same as that of the man who owned a sheep. He sold it for a few dollars and

sheep of its fine wool, selling it year after year after year. But one day he decided to kill the sheep and sell its skin instead for a little more money. When it was too late, he realized his mistake. Will we wait too late to realize our mistake? Will we, too, kill the goose that laid the golden eggs of the Golden Isles?

It should not be necessary to point out that making dry land of the marshes will end forever the production of shrimp and aquatic food in the entire Wassaw Sound. This has been amply demonstrated in Connecticut, which has lost more than two-thirds of its estuarine wetlands since the turn of the century. At the current prices, Connecticut's two million dollar a year shellfish industry would have been worth 48 million dollars a year today, if Connecticut marshes had been preserved.

Georgia has a chance to prevent the mistakes of its fellow states. Our marshes are relatively unspoiled. While they can be preserved today, once destroyed, they can never be rebuilt. They are not building any more marshes. *The only way to create a marsh is to preserve it while it still exists.*

Our State talks a lot today about tourism as a booming new industry of the future. Our Industry and Trade Department spent \$730,515.00 last year to promote tourism in Georgia, along with many thousands of dollars spent by local chambers of commerce and the regional planning and development commissions, including those of Chatham County. This money is an investment for the future, but it will be wasted if the attractions which we are advertising today are destroyed tomorrow.

It is estimated that by 1976 alone, there will be five and a half million persons passing by Chatham County on their way south or north on I-95 and U. S. 17 and 301. If each of these persons could be induced to stop one night and spend \$20 each in Chatham County or elsewhere on the coast, the approximate 400 million dollar retail sales of the six coastal counties could be increased by 200 million dollars, or more than one-half! Tourism is a profitable new industry, *but these tourists are not interested in stopping to see a phosphate mine or a subdivision.* They are interested in the beauty of the Georgia coast, the quality of its fishing and hunting, and the delicacies of its kitchens. As a recreational area, our undisturbed marshes represent money in the bank for Georgia's future. We can't afford to draw it out now, for a ridiculously low interest rate.

In short, it is obvious that Georgia's marshlands and estuary areas are too important to allow them to be exploited and ruined by a short term mining and land development scheme.

These areas are already too valuable to risk losing now. The need for them will be far greater in the future to provide our rapidly increasing population with recreation and seafood.

More nutritious and desirable food will be produced over a longer period of time by the undisturbed marshes than will ever be created by the application of phosphates to dry land. That such a mining proposal should even be advanced in the age of an oversupply of phosphates is ridiculous.

I know what this company proposes to get from the State of Georgia, and what it plans to pay for it. As I revealed at the first hearing of the Mineral Leasing Commission in Atlanta, Kerr-McGee proposes to pay the State of Georgia little more than two million dollars in the next 20 years for fill material that is worth at least 124 million dollars. This is less than two per cent of its value. It well may be worth more than 650 million dollars, based on the rates that the State Highway Department pays for fill material on road construction projects.

We also know that the phosphate market is glutted. Kerr-McGee admits this in their own annual report. In this same report, they admitted that it is cheaper to buy phosphates from other producers than to mine them. Because of this, Kerr-McGee cancelled plans for construction of a phosphate mining and milling complex in Florida.

If phosphates are not worth mining, then let's consider what kind of a housing project would Chatham County get. First of all, it would get a subdivision with lots too expensive for the average Georgian to buy, even though he would pay to fill them in. *Do you believe that this out-of-state company will spend the money it reaps from this housing development in Georgia?* The purchaser might have access to the sea, but what would he fish for there, or hunt there? Would he like swimming in the chocolate brown waters left by dredging? Would he care for the odor of drying marsh muck on adjacent areas still being filled in?

Would he feel secure living there? From 1700 to 1955 at least 54 hurricanes and thousands of tropical squalls struck the coast between Jacksonville and Cape Hatteras. One of these hurricanes killed 335 people in Savannah in 1881. At the same time, *Tybee Island disappeared beneath the ocean.* It has disappeared before. It may disappear again.

If this happens, what will happen to these fine new subdivisions on Little Tybee Island, on Cabbage Island, and on Wilmington Island? Will the people on them be able to escape in time, if, like Tybee, their exit road floods before the islands themselves do? When flooding occurs, who will pay the bill for

eroded causeways and streets, broken telephone poles and downed wires, clogged water and sewer systems, wrecked automobiles, and ruined homes? Where will Kerr-McGee be then? Are there no better places to build subdivisions in Chatham County?

Will there be erosion of the shore on these wonderful new highgrounds, when the protective buffer zone of the marsh has been replaced with houses built on sand? Any qualified hydrologist can predict what will happen if shallow Wassaw Sound is deepened 70 to 120 feet. Because waves are simply circular currents, they can never be higher than the water is deep below them. If there are 30 foot waves on Wassaw Sound during a storm now, how high will they be if the water is 120 feet deep, instead of 30?

In his book *Estuary and Coastline Dynamics*, Ippen shows the effect of increased water depth on wave height. With a 25-mile per hour wind, waves in 120 feet of water are twice as high as they are in only 30 feet of water. In a hurricane wind of 70 miles per hour, waves in 120 feet of water are three times as high as they are in 30 feet of water.

What will be the effect of these higher waves on the shoreline? Can houses and buildings near the shore already constructed be considered safe? What about these proposed new subdivisions with no protective marsh buffer in front of them? What about traffic on the Intracoastal Waterway, or shrimpers trying to leave their home port of Thunderbolt through Wassaw Sound, their normal route to the sea? What will happen to Wassaw Island, and its marshes? In a hurricane, gigantic waves will pound the shorelines, crashing over any economically feasible bulkhead likely to be built there. The resulting damage and shore erosion will stagger the imagination. Once tidal currents and tides in Wassaw Sound are so drastically altered, many shipping channels may rapidly silt up, creating additional expense to maintain them. Adjacent real estate may well erode away, back into the sea.

Is Kerr-McGee worth this risk? Are phosphates that valuable? Do we need a subdivision that bad? Can we afford to lose the marshes of Chatham? How can the answer to any of these questions be anything except a resounding "No!"

Along with thousands of my fellow citizens, I feel that it is the duty of the State Mineral Leasing Commission to deny the leasing of this State-owned underwater land to Kerr-McGee or any other company.

To the members of the Leasing Commission, I make this plea:

Gentlemen, the decision is yours.



But before you make it, I plead with you to make the decision that will save the Georgia coast for thousands of little boys, and little girls, who will want to fish there, hunt there, swim there, and enjoy eating the delicious treats of God's bounty from the sea. I pray that

you will not let them down.

(At the time this article went to press, the decision of the Mineral Leasing Commission had not been announced, and a court restraining order to block the lease was in the process of being appealed.)

We're Seeking to Solve

THE DOVE DILEMMA

By Dean Wohlgemuth



■ The smoke hangs heavy when dove hunters from North and South Georgia get together. Those in the northern half of the state like their dove season early, while their more southerly brothers afield prefer to seek their sport as late as the federal law permits.

Which group has the best reasons? Both have arguments on their side. So the big word battle boils down to: "Why can't we simply have an early season in the northern half of the state, and a late season in the southern half?"

Well, first you have one "little" problem, that being that the federal government allows Georgia up to 70 days (this may vary from year to year), between dates they set which are usually September 1 through January 15.

Now, if only a portion of the state were to be open on any day or days, this would count against the entire state's quota of 70 days. So, in other words, if the first 30 days of the season were open only in North Georgia and the final 40 only in South Georgia, the total of 70 would be used up.

However, this would mean that those hunters in North Georgia would get only 30 days to hunt instead of 70, and those in South Georgia would get only 40 instead of 70. If either group wanted more time to hunt, they'd have to travel to the other half of the state when the season is open there.

Of course, each end of the state wants its full 70 days. There's only one way to do it... open the entire state when the season is opened at all. So, to provide some of the preferred portion of the season for each section, the season is traditionally split in Georgia, between just about as early as possible, and just as late as possible.

Can nothing be done to change this? Can't South Georgia have all its season late and North Georgia have all of its season early?

The Game and Fish Commission is deep in the midst of trying to find an answer to this question. Georgia received a \$22,000 Federal appropriation to study what affect it would have on the dove population to have such a split in seasons. The grant comes from a federal fund set aside for research on so-called "lesser" migratory birds, such as doves, snipe, and woodcock.

The study is actually in its second year, and Commission game biologists hope it will be extended a third year to help obtain more concrete information. At present, data is still being compiled from the first year's study, and at this stage of the game no conclusions can be drawn. There just isn't enough information available to draw firm conclusions.

The hard part of the study is that biologists are attempting to determine the affects of having two separate 70-day seasons in the two different halves

of the state, but without benefit of actually being able to perform such a split.

Jim Scharnagel, game biologist of the Gainesville office of the State Game and Fish Commission and Georgia's representative in a 13-state four-year dove study, is handling the split season study as well. He says that in an effort to achieve the primary objective of the season study, he has three basic "sub-objectives."

The first of these is to determine the time of the peak population of doves in the two areas. Secondly, he is analyzing the present kill in each area, and finally, he is attempting to analyze the effects of Georgia hunting in other states into and from which doves migrate to and from Georgia.

This is quite an assignment!

Many parts of the four-year, 13-state study now underway overlap with Scharnagel's split season study. And in some cases, he extends the work of the four-year study to apply it to his split season study. He does this, basically, by doubling all parts of research.

That is, when for the four-year dove study he was assigned to band 4,000 doves in Georgia this year, he instead attempted to band 8,000 doves... half in North Georgia and half in South Georgia. In other words, he is handling each half of the state as if it were a separate state entirely.

Doves are trapped, banded and then released. When a dove is killed the band is to be mailed back by hunters. In some cases a dove may be trapped more than one time or his band may be brought to attention more than once in other ways. Banding helps by providing information about how much a dove moves and how long it takes to get him there. When initially banded, along with recording the band number, a biologist records whether the bird was male or female and whether it was an adult or juvenile bird. The location and date of banding is of course also recorded.

In addition to learning about dove movements, facts can be derived about the age expectancy of doves, particularly as effected by hunting. This study shows, for example that young doves are not as cautious around hunters as are older doves, and are more susceptible to the hunter. It also indicates that sex appears to have an effect on the dove's susceptibility to the gun. A portion of the annual mortality due to hunting can be determined through banding.

It is important to note that generally speaking, some three out of four doves taken by the hunter are likely to be juvenile birds. Hunters should not be alarmed by this. On the contrary, such a ratio of juvenile-to-adult birds in the bag indicates that the dove population is healthy and normal, and that reproduction is good.



Game biologist Jim Scharnagel records the band number, age and trapping location of a dove. Nearly 8,000 doves were trapped by the Georgia Game and Fish Commission this year as part of a thorough study of dove hunting in Georgia. The study is being made to determine whether it would be feasible to have separate dove seasons in North and South Georgia.

Georgia's dove population appears to be in good shape. In 1966, the first year of the study involving 13 states, there were 3.51 juvenile doves killed per single adult bird. This increased slightly in 1967 to 3.6 juveniles to the adult.

Alabama's ratio was even higher, 4.18 in 1966 and 5.82 in 1967. Florida's ratio was also higher than Georgia's, going over the 5-1 mark.

Toward the first objective of the study—finding what time of year there are the most doves in each of the two halves of the state—sight counts were made along 22 permanent, established routes. Biologists counted the doves they saw on these routes, at regular times.

Work on the second objective, analyzing the kill in each area, was done through a telephone survey. This, too, was a portion of the four-year study that could be applied to the split-season or zoning study. Telephone numbers were selected at random, and persons were questioned by phone about their dove hunting. Some 4,400 calls were made in Georgia, in both halves of the state combined.

Basically, the telephone survey for all states was to determine the success

of the hunters, asking how many times a person hunted and how many birds he got. The calls were not limited to hunters only, but were taken at random from a phone directory. This produced an idea of the percentage of persons who hunt doves.

In addition to such information, persons in Georgia were asked other questions to help with the zoning study. They were asked what part of Georgia they lived in, and where they hunted. This was to determine how much traveling hunters do to hunt doves. If it is proved that hunters are willing to travel long distances to hunt doves, two 70-day seasons in the state may produce too much hunting pressure on doves. Here again, however, is one of the greatest problems of the study. Habits of hunters might change considerably if the study could be operated under actual conditions of having separate seasons.

Studies of wings collected from dove hunters are an important part of both dove studies. Randomly selected dove hunters in each of the 13 states (again, Georgia was split as if it were two states) were asked to save one wing from every dove they take during the

season. Each day's bag is kept separate, with the date and location marked on it.

This enables the biologist to determine hunting results and shows the age of birds taken at various times of the year. By studying the moult of wing feathers, biologists can determine a juvenile bird's age within a week.

A dove leaves the nest at an age of 12 to 14 days, and starts flying at that time. When he's 30 days old he is fully grown as far as actual weight and size is concerned. He doesn't complete his initial moult of his feathers until he is about 90 days old, however. Beyond 150 days, he is considered an adult bird.

In addition to these studies, Georgia carried out other experiments. Hunters were checked in 12 counties, half in north Georgia and half in south Georgia. Two counties just north of the fall line (Columbus, Macon, Augusta) and two just south of the fall line, all bordering the line, were selected. Then, two groups of two counties farther away from the fall line in each half of the state were selected. Finally, two counties in each extreme end of the state were added.

In these 12 counties, wildlife rangers contacted hunters as they performed routine checks of dove fields. Hunters were asked what county they lived in, compared to where they were hunting. Only resident hunters were asked. Out-of-state hunters were of no help. Rangers recorded the date of the hunt, the success of each hunter, and in addition, they were asked if they had telephones. This was to help with the phone survey by attempting to determine what percentage of hunters have phones.

Other than financial support of the project and providing some essential information from other states, the federal government is not actually taking part in the Georgia zoning or split-season study.

The four-year study in which all 13 states are now participating, however, is headed up by the Fish and Wildlife Service. Headquarters of the study is at the Migratory Bird Population Station, Patuxent Research Center, Laurel, Maryland. Milt Reeves is the head of this study.

If all this sounds complicated, it's because it is. But biologists still hope they'll come up with some solid answers. If their answers are convincing enough, perhaps the federal Fish and Wildlife Service will decide that zoning Georgia for the purpose of dove hunting would not have a harmful effect on dove populations.

And that will be a dream-come-true to many Georgia dove hunters, no matter which part of the state they're from!

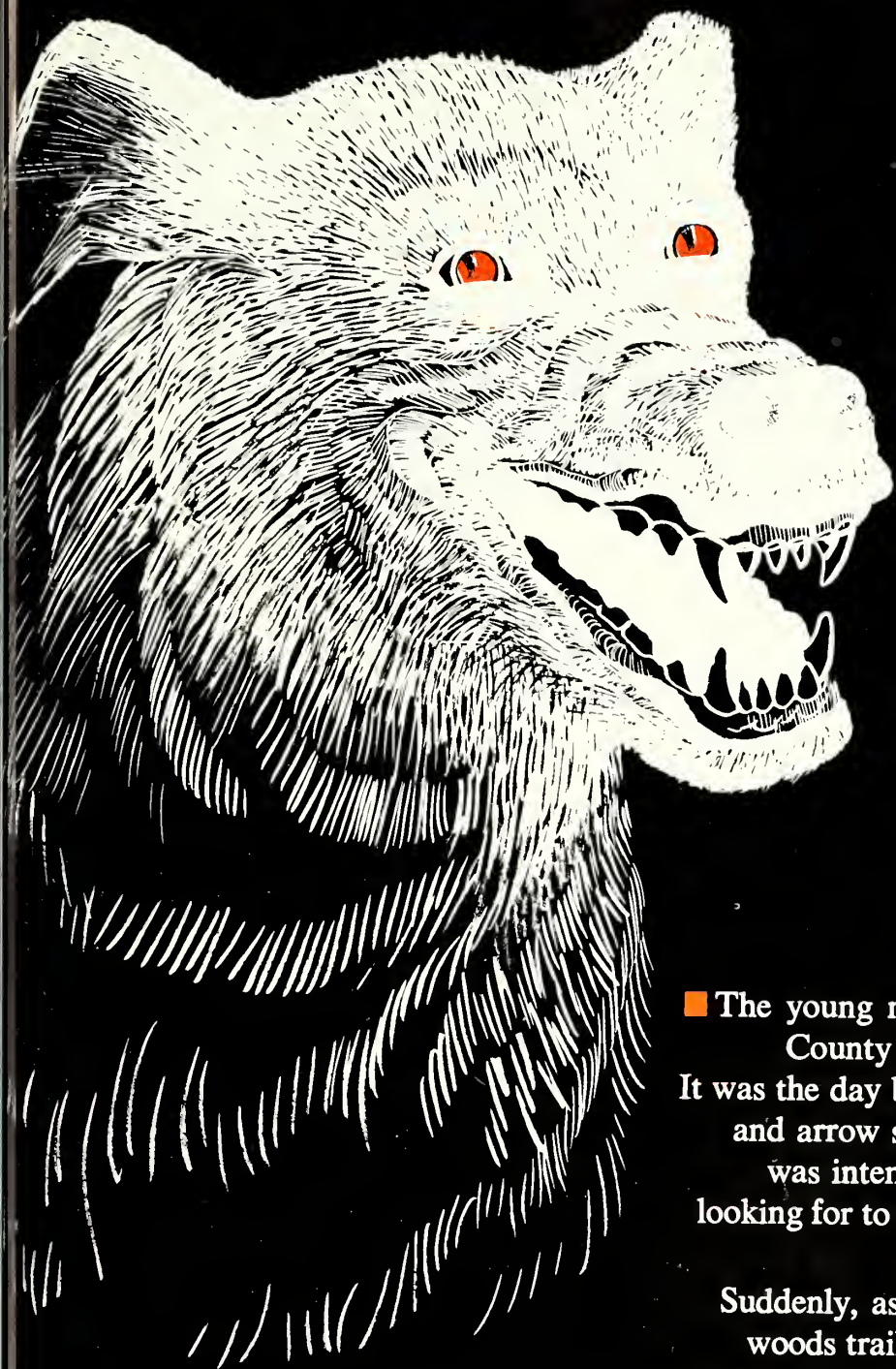


The moult of a dove's wing betrays its age. Note the fourth feather from the tip. The short new feather replaces a juvenile feather. The dove moults a wing feather a week, from the age of 30 days, until all wing feathers are adult.

This dove is in the seventh week of moult, lacking only three more to be complete.

No picky! This is a wing bee! All these doves were saved by hunters at the request of various agencies from participating in a study of dove hunting. The doves have been held in captivity for two years.





HOUNDS OF HELL

By Jim Morrison

■ The young man walking into the Oconee County woods had his mind on deer. It was the day before the opening of the bow and arrow season. Carrying his stand, he was intent on locating the spot he was looking for to put it up to hunt the next day.

Suddenly, as he walked along the narrow woods trail, two snapping, snarling dogs rushed toward him! Startled, the young hunter threw the board in his hand at one of the animals, before it sank its fangs deep into the hunter's leg and began shaking its head from side to side.

Unarmed except for a hunting knife, he unsheathed it and plunged the blade to the hilt in the animal's side, causing it to let go of the badly shaken hunter.

Exhibit Number One.

(continued on the next page)



The frightened doe dashed frantically through the forest, the sound of her breathing preceeding her approach. Nearly exhausted, she hesitated momentarily for a hurried backward glance at her tormentors, then stumbled forward again.

But it was too late.

Bursting from the thicket, the brown and black furred demons dashed to her side, their bared fangs glistening. Surrounded, the exhausted doe's pitiful struggles were in vain. Pain shot threw her body with the first bite, followed by another, and then another. Bulldog like, one cur held a leg. Another snapped at her jerking neck, biting her shoulder and shredding her ears as blood ran down her brown fur and splattered on the leaves.

By the time the devil dogs began eating her hams out as she lay quivering on the ground, she was ready for death.

Exhibit Number Two.

It was a gory, sickening sight that met the weathered farmer's gaze. Checking his herd for new calves that morning, he found one—or what was left of it. The grisly remains of what would have been a prime beef steer left a painful knot in his stomach. His angry eyes glared at the unmistakable dog tracks on the ground.

Exhibit Number Three.

Sound like fiction? The individuals involved wish that they were. Unfortunately, these three "stories" are all true, and they happened right here in Georgia in recent months. Some of them made the newspapers, but most of the other thousands of examples didn't.

Fortunately, the first example is the least common. There aren't a lot of attacks on humans by actual wild dogs, although examples of it have become more numerous in recent years. Following is one of the authenticated attacks on a human.

One of the first attacks came to light, in 1934, when Frank Wood,

an employee of the State Highway Department who lives in East Point. While working with a surveying firm at the time, Wood and two other men were clearing timber for a survey in South Fulton County, between the Chattahoochee River and the county airport.

"We had a chain saw and two bush axes," Wood said. "We came to a thicket and when we started the chain saw, a pack of dogs started coming out of the thicket like hornets out of a nest."

"We thought the noise of the chain saw would scare them away, but instead they attacked us. We had to kill them with the chain saw and axes to protect ourselves. We killed five dogs right then, and by the time an hour had gone by, we had to kill four more, for a total of nine that day."

Wood said that several days later, the crew returned to the spot to finish the job, which they had abandoned because of the previous attacks. "We had to kill three more dogs that day," Wood said. "They were wild, vicious, and hungry looking," he said.

Although Frye and Wood were able to successfully defend themselves from attack, speculation as to what would have happened to a child, a woman, or an unarmed person in such a situation is a sobering thought indeed.

Actually, attacks by dogs on humans aren't uncommon, but the dogs involved are usually of the domestic variety, frequently a pet of the person or child that is bitten. Exactly how many persons are bitten by dogs each year in Georgia for various reasons isn't known, but the State Health Department receives more than 500 dog bite complaints a year for investigation. Hundreds, perhaps thousands more are never reported. In the most publicized such attack, two pet dogs killed a young child of their owner at Fairyland, Ga., in Dade County.

While most of Georgia's sportsmen and wildlife conservationists aren't

worried too much about the threat of actual physical attack by wild dogs, they are concerned about the losses of wildlife species, especially deer, to both wild and free-running "pet" dogs.

No one knows what the toll of wild animals killed by dogs is. Usually, the outcome of chases like that labeled Exhibit Two is never known to humans. In this case, the doe managed to get up and take refuge in a creek, where she was found by wildlife ranger Richard Roberts of Walton County, investigating the report of the chase. Wading the creek, Roberts had the unpleasant task of putting the mangled doe out of its misery with his revolver, since the suffering animal would have died anyway.

Anyone who doubts that dogs chasing, catching, killing, and eating deer is a major wildlife conservation problem hasn't ever talked to any of the wildlife rangers who patrol all of Georgia's 159 counties night and day. True, some counties like Catoosa have few deer, even though it has more than its share of dogs, according to reports from cattlemen of their damage. In areas with many deer, the dog problem is always present. In many cases, it is the reason for low deer populations, especially in wooded areas with good deer habitat.

Even in many of the game management areas of the State Game and Fish Commission, deer chases can be heard every day. Since some breeds of dogs don't bark while on the trail of a deer, many more undoubtedly occur. Reports by sportsmen, landowners, and other persons in the woods of dogs chasing deer are frequent all over Georgia.

"We didn't have much of a problem with dogs chasing deer 10 years ago in most of the State," says Charlie Marshall, game biologist of the State Game and Fish Commission at the Walton County office. "The reason was because while we've always had a lot of dogs running loose, we didn't have any deer in large areas of the state before. A



Far left: An actual survey of Georgia cattlemen indicated that more than 8,000 head of cattle, mostly calves, were lost to dog killers last year. The butchered animals were worth an estimated minimum of one and a half million dollars.

Richard W. Frye Jr. of Athens and the knife he used to kill a wild dog that attacked him in the Oconee County woods on the day before the hunting season began. If the wild dog had attacked a small child or an unarmed adult, the result might have been more serious. More than 500 domestic dog bites a year are reported to the State Health Department, an ever-present threat of a link between rabies in wildlife, stray dogs, and humans.

dog would have starved to death trying to find a deer to run. But now we have some deer in all 159 counties, and enough to hunt in more than 125 of them, so now that we have deer, the dogs are running them and creating problems."

A game biologist for many years, Marshall has first hand experience with dogs attacking deer, as have all of Georgia's game biologists. While working with the University of Georgia's Cooperative Wildlife Disease Study, Marshall first became aware of the problem. "I've seen the after-effects in Clarke County," Marshall said. "I found several deer carcasses chewed up there, including one on the University's forestry school property."

The latest deer killings by dogs to disturb Marshall came just a few months ago, when three mangled bodies were found on the Game and Fish Commission's Cohutta Game Management Area, part of 23 deer restocked on the area this year in an effort to restore a once flourishing herd wiped out by poachers and dogs.

"I was personally familiar with five of those deer," Marshall said. "I spent three long hard nights to catch them with a dart gun in Southeast Georgia. It was raining one night, and was cold as the devil the other two."

The bodies of the three marked deer, killed by dogs, were found by the Cohutta area manager, Buford Withrow, who is no stranger to dog problems. Buford's experiences were recounted in the article, "Dogged to Death," which appeared in the January '68 issue of *Game and Fish*. While working on a preliminary research project on the Commission's Lake Russell Game Management Area, Buford recorded five known and 15 possible deer kills by 115 dogs in 55 chases during 89 days of observations over a six-month period.

"Our problem in the wildlife profession is that we really don't know how

many deer there are out there now," Marshall admits. "There simply isn't any effective means known at present for counting wild animals accurately, so there's no way to measure our losses. We could lose 10 or 100 deer on an area and never miss them. We know that there is a problem, but we don't know the extent of it. It may be greater or less than losses of domestic livestock."

However, there is hope on both scores. Recent advances in the science of aerial photography with special camera and infra-red films may soon make actual deer counting possible by photographing and identifying heat waves from the animals' bodies, even when hidden beneath foliage.

This winter, the Game and Fish Commission plans to repeat Withrow's observation of dog-deer chases in greater detail, using a game biologist who will be assigned full time to the Lake Russell Area for six months to make observations five days a week. The biologist will try to follow the chases and record what happens at the end of the chase.

That dogs are affecting deer populations on many Commission management areas seems clear, and damage off the "refuges" must be even higher. For instance, Commission game biologists say that the John's Mountain Management Area near Calhoun in Northwest Georgia is capable of producing six deer per 1,000 acres on managed hunts, or a total of at least 240 deer for the area's 40,000 acres. However, the annual kill there is usually 40 to 50 bucks. Similarly, the harvest on the popular Blue Ridge Management Area is only two and one-half deer per 1,000 acres. Dogs are the difference.

What happens to the deer population when dog predation is removed? A good example is the Atomic Energy Commission's Savannah River Project in South

Carolina, south of Augusta. Closed to the public in 1952, the giant 320 square mile area is surrounded by a barbed wire fence on three sides and by the Savannah River on the fourth. Roads into the area are barricaded and guarded night and day. Security guards with guns constantly patrol the area, practicing dog control, along with their other duties. Stray dogs were eliminated from the area. Since there are no permanent residents inside the plant area, domestic dogs were no longer a significant factor in deer reproduction.

As a result of the absence of dogs, poachers, and hunting, the skimpy deer population within the area skyrocketed. Soon, plant workers were harassed by deer being run over on area roads at the shift change, and deer became a nuisance. By 1965, it was decided to open the hunting season on area deer to reduce their population to less problem levels.

The first year, four half-day hunts were held two weeks apart, with a limited number of hunters using dogs and no bag or sex limit. The results were fantastic. On some hunts now, more deer are killed than the total number of hunters participating. One hunter shot nine deer on a single hunt.

Since then, the hunts have been expanded to every Saturday from August through January. A four-to-six-mile square area at a time is hunted, with 150 to 300 dogs being turned loose in the area for half a day, producing sharp, intense hunting pressure for a short time. Even though such hunts have been held every year since 1965, the deer kill has remained consistently high, with as many as 16 deer per square mile being harvested on a special study area, including biological study specimens. Previously, deer experts said 12 deer per square mile was the estimated total deer population on the better areas, yet no effect was seen on the kill year after year. The average population on the

area may be as high as 50 deer per square mile, an unbelievable population. Yet just outside the project gates, deer hunting is generally poor, compared to most middle Georgia areas.

Significant? Yes. Evidence that dog control produces more deer? Yes. Evidence that similar protection should be given deer from dogs in Georgia deer hunting areas? Yes. But that's not all the Savannah hunts revealed.

A startling discovery was made almost by accident of the effect that hunting the Savannah deer with dogs had. Dick Payne, now a game biologist of the Georgia Game and Fish Commission, was at that time a graduate student in wildlife management at the University of Georgia. As a part of his graduate studies, Dick conducted a research project on deer reproduction. For an entire year, Payne roamed the Project area collecting reproductive organs from does in an effort to determine breeding seasons and other information not connected with dogs and deer.

His study began before hunts started on the area, and continued afterward. Now, they have been taken up by Dave Urbston, a biologist of the U. S. Forest Service, the agency which manages timber and wildlife on the Plant. But now, the studies have taken on a new, more important aspect.

By examining the ovaries of yearling does on the area for a color pigment spot, Payne and Urbston were able to determine whether or not a doe had dropped a fawn in her first reproductive season, which is frequently at the age of six months. Studies were made of such reproductive success on areas in years before hunts and years after. Some control areas have never been hunted, and samples taken each year from these areas. As a result, several interesting facts came to light.

Payne and Urbston discovered that in areas that had never been hunted in recent years, 54.5 per cent. of the first year does had been successfully bred. But on areas that had been subject to heavy dogging during the hunts, the rate was cut to 28.1 per cent, almost in half!

The significance of this figure on deer herd growth can be shown by using a hypothetical example of a herd of 100 deer after the young of the year fawns are dropped in the spring or summer. Theoretically, there might be approximately 60 adult deer and 40 fawns. 20 of these fawns might be does. Using the undisturbed Savannah Project figure, 10 of these first-year fawns probably would produce a fawn. But if the rate were cut in half by dogging, only 5 would produce fawns. Thus, the total reproductive rate of our sample herd would be cut in half, considering the effect of dogging by most of the

adult does. Five fawns lost out of 40 breeding does might not sound too significant, but suppose our herd was 1,000 deer, 10,000 or 100,000, instead of 100. That could mean annual fawn losses of 50, 500, or 5,000 deer! And if those does produced twin fawns their second year, the losses could be 150, 1,500, or 15,000 in one year alone! Each year afterward, the effect would increase. Small wonder that deer herds don't grow as fast in areas with heavy dog harassment.

These figures only take into account first-year fawn depletion, due to suppression of ovulation in harassed deer under the stress of dog chases. How many losses can be credited to abortions caused by dog races is impossible to count, since evidence of a lost fawn can't be seen on does except when they are examined shortly after their abortion.

But on top of lowered reproduction, actual fawn killings by dogs might be a much greater factor in dog predation than is generally suspected now, since fawns represent a much easier target for dogs than a doe in good condition. While a chase of a mature doe or buck might last an hour until the animal is caught or escapes the pack, a fawn chase might not last more than 100 yards. The fact that fawns have little scent at birth shouldn't be distorted, since the condition lasts only a few days until the fawn starts moving, following its mother. Then too, many fawns may be jumped by dogs chasing another deer, perhaps the mother. Evidence of a fawn chase judging from the barking of the dogs may sound like a short unsuccessful chase of an adult deer. The remains of a fawn dinner are quickly cleaned up in the woods by scavengers like raccoons, foxes, crows, bobcats, and buzzards.

Another factor is heat exhaustion. This phenomena is well known to horsemen, who are careful to avoid overheating their mounts, or allowing them to drink or swim in water while overheated. Yet a mature deer fleeing pursuing dogs invariably heads for water in an effort to lose them, frequently plunging into a river or lake while in an exhausted, overheated state. Death by shock or pneumonia is sometimes the result, or the animal may be further weakened if the dogs catch sight of it or wind its scent before it can make good its escape. This is especially difficult in the two-thirds of Georgia above the lower coastal plains area, with its many standing water swamps. This is the only reason that deer can successfully survive legal deer dogging in extreme South Georgia around the Okefenokee Swamp and the coastal region river swamps.

While the deer runs swiftly at first, it soon tires after a long chase by the slower, but more persistent dogs. Since the deer cannot climb a tree or hide in a hole, it must lose its scent in water or

become exhausted and be killed at the end of the chase. Even large bucks are no match for a pack of dogs when they are completely exhausted.

How many deer are killed each year by dogs in Georgia? How many deer are there in Georgia? "We can't really factually answer either question," says Charlie Marshall. "We do know that hunters are taking about 25,000 deer a year, so the population must be well over 125,000 by now. But what our annual losses to dogs are is impossible to determine."

Looking for some other way to measure the damage done by uncontrolled dogs that could be compared to deer losses, Georgia's game biologists hit on an idea. Any dog that would kill a calf or a pig would kill a deer, they reasoned, and vice-versa. Why not measure livestock losses to dogs each year? Here was a workable proposition, since cattlemen and swine herders keep careful watch over their livestock. If any animals are missing, they usually are aware of it, and frequently know the exact cause of the loss through personal observation. Similar conditions simply don't exist in the wildlife area, where there are no fences or farmers to keep careful check.

Working on this idea, the plan was brought before the Georgia Cattlemen's Association and the Georgia Swine Growers Association, where the proposal was eagerly accepted. Both groups realized that they had a dog predation problem, but no figures on its extent were available.

Next, the Cooperative Extension Service of the University of Georgia's School of Agriculture in Athens was contacted. Through the head of the animal husbandry department of the Extension Service, Dr. O. G. Daniels, a current list of all cattle and swine producers in Georgia with a minimum number of brood animals was obtained. Then, using a table of random numbers, questionnaires were sent out by both associations to a random five per cent sample of each list.

Thus, the 11,610 cattlemen in Georgia were narrowed down to a random five per cent sample of 582 producers who were mailed animal damage questionnaires in 1968. 17 of these were returned by the Post Office as undeliverable, creating an effective sample of 565 recipients. Of these, 284 cattlemen filled out their questionnaires and mailed them back within the allotted time after a second mailing.

Of the 284 respondents, 118 or 33 per cent of them reported some type of harassment or mortality as a result of animal attacks. The entire group had lost 259 head of cattle. Significantly, the cattlemen reported that 199 of the cattle were lost because of dog attacks. 27 kills were credited to buzzards, and 33 to all other types of wild animals.

including bobcats, foxes, coyotes, accidental shooting, etc. The total monetary loss reported by them was \$17,605, not including the cost of maintaining a brood cow another year to produce a new calf. Not all of the losses were calves, although an estimated 90 per cent were. Some brood cows were lost by being run through fences, etc.

A second portion of the questionnaire asked for estimates of time lost by cattlemen in dog control or prevention efforts, but most cattlemen didn't make an estimate.

Shocking loss figures? Yes, but not nearly as shocking as the figures that were reached by simple expansion of the five per cent sample to represent the total of 11,610 cattlemen. Using the statistically accurate procedure, it is safe to assume that approximately 4,825 cattlemen had predator problems, 3,884 of them to dogs! An additional 1,117 were attributed to buzzards, and 1,432 to other wild animals. The total monetary loss was \$1,136,642, of which dogs were responsible for a whopping \$888,558! Since it costs approximately \$80 a year to maintain a brood cow an additional year until it produces a new calf, this dog loss figure is probably actually \$650,240 more, or a total of \$1,538,298!

Clearly, a million and a half dollar economic loss to cattle producers on 8,000 head of cattle is a staggering loss for any industry, especially one with as low a margin of profit for the producer as the cattle business. Bob Nash, the executive vice-president of

the Georgia Cattlemen's Association, says that the loss of one calf means that the average cattleman must feed a brood calf for seven years, producing a calf each year, before he can recoup his loss and make a profit off the cow again.

A similar survey conducted in 1967 showed that dogs that year killed more than 5,000 head of cattle valued at \$885,000. Thus, the dog-cattle problem has almost doubled in a single year, an indication that free-running dogs are an increasing problem in Georgia. Whether or not the livestock losses are greater or smaller than deer

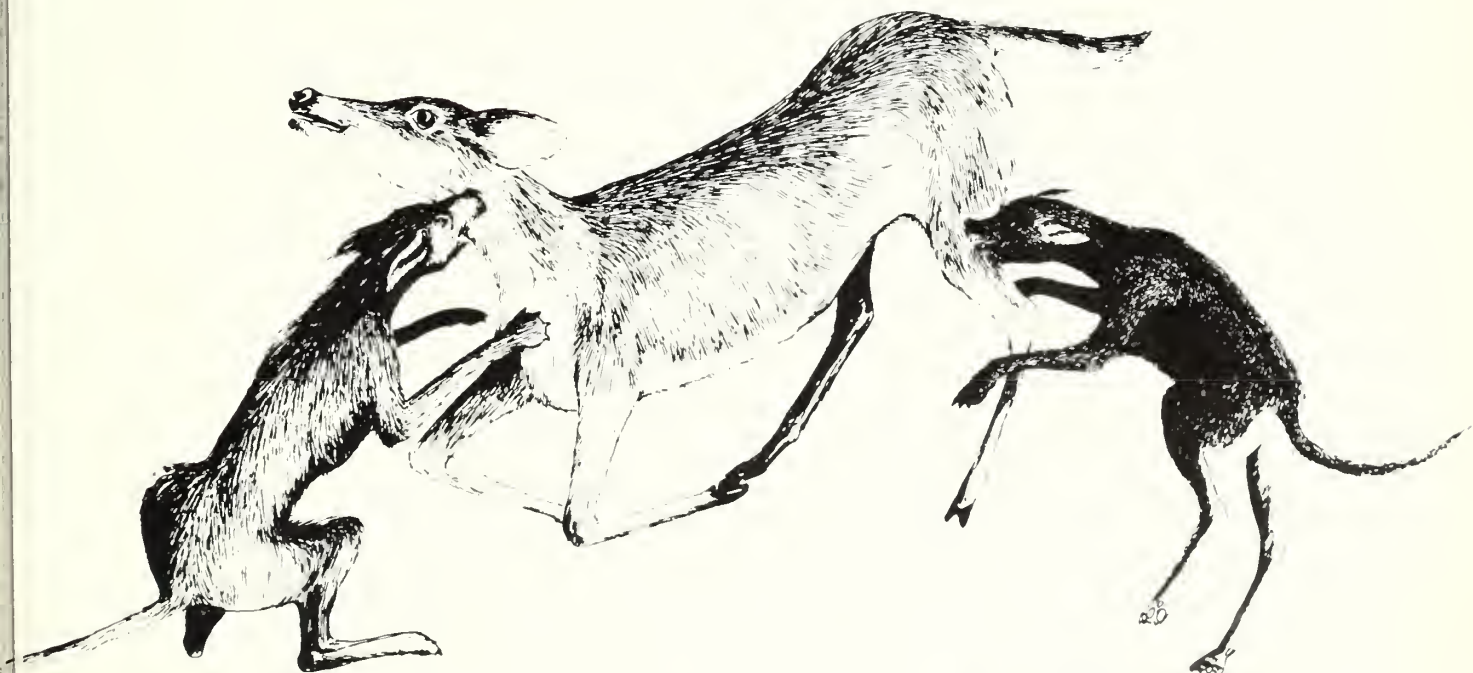
losses is a matter of speculation.

While the 1968 survey showed that damage to the swine industry by dogs is less money-wise than to the cattle industry, more pigs were lost to dogs than cattle. The survey indicated that dogs killed 11,243 pigs worth \$238,014, a tidy piece of change for most agricultural industries.

"We can't stand this kind of loss," says Bob Nash. "Some solution to this problem must be worked out if we are to continue to operate. One man may not lose anything, another may lose two or three. One man told me last week he had lost 12 head—believe me, that is



A seven member Wild Dog Study Committee of the Georgia House of Representatives is completing several months of research into the dog problem, with plans to recommend a dog control law to the next session of the General Assembly meeting in January. Public hearings were held by the Committee in Atlanta, Valdosta, and Ringgold.



How many deer are killed by uncontrolled and wild dogs each year in Georgia? If the annual toll of the uncontrolled dogs could be computed, sportsmen would be amazed. 96 Georgia wildlife rangers in 102 Georgia counties estimated they had lost more than 2,000 deer to free-running dogs last year.



too heavy a loss."

"When you put it all together as an industry, the loss is tremendous, when you consider the fact that these calves may be worth from \$25 up to \$250 per calf, so it does amount to a lot of money."

"Some people would say that this is just in certain counties where there are more cattle," Nash says. "I realize that the cattle business doesn't run up and down some of these mountains, where there's nothing but trees. I realize that in the pine country of Southeast Georgia that there's very little cattle there, but in the areas where we do have cattle, we do have a problem with these dogs. Some areas would show a lot heavier loss than others. For instance, in Northwest Georgia, we had a considerable loss—more than \$100,000, all attributed to dogs. While we had less cattle killed in Northeast Georgia, that area suffered the greatest monetary loss, because of the concentration of registered cattle with a higher value there."

"I don't think the problem is to control hunting dogs anywhere," Nash adds. "The problem is to control dogs that nobody accepts any responsibility for. When you look at these, you find that the number is probably a lot larger than those for whom someone actually controls and feels responsibility for. We're talking about dogs killing cattle, but we're not saying they're lost to coon dogs or fox dogs. We're not against any one group of people in the State."

"Now, all the cattleman is actually asking for is for the people who own a dog to be responsible for the actions of that dog. If a cow gets out on the road and you strike that cow with your car, the owner of the cow is liable for the damage. If a dog kills a cow, the owner of the dog should be liable for the damage. But if the owner of the dog is not liable for a dog who

killed my cow in my pasture, the dog owner isn't liable. And if I kill your dog, you could sue me for destroying your personal property!"

Nash is not alone in his call for action. The director of the State Game & Fish Commission, George T. Bagby, has called for legislative action. "During the past few years, we have become increasingly unable to adequately control the dogs that are harming our wildlife resources," Bagby says. "We have reached the stage where we must have help in order to protect the wildlife for the people of Georgia."

"It is now necessary for this department to try to grow as much wildlife as is possible on each acre of habitat that this state has to offer, in order to provide for the increasing numbers of sportsmen in this state. As time progresses and habitat acreage decreases, the fight will grow more important each year."

"We want to protect the interest of the legitimate dog-owning hunter and in no way create too great a hardship for this sportsman," Bagby said. "At the same time we must adequately protect the wildlife that the non-dog hunter utilizes."

"From reports of our field personnel, it is felt that the greatest threat to our wildlife resources comes from abandoned dogs that are left to fend for themselves. These dogs ultimately begin taking wildlife and domestic livestock out of necessity. It is either do this or starve. When they have become adapted to living off the land and the landowner, they begin to reproduce in greater and greater numbers," he said.

"It is now necessary that all State agencies band together to combat this menace that not only takes a heavy toll of wildlife each year, but is becoming an increasingly greater and greater problem to the landowner," Bagby said.

Game and fish department officials from Alabama, Florida, North Carolina, South Carolina, and Tennessee say that similar dog problems exist within their respective states. The problem in Georgia is statewide. With hunting now a \$22,000,000 business in Georgia, it is a serious problem. Each deer in the bag represents almost \$400 in expenditures by Georgia hunters, yet two or three worthless mongrels can destroy that animal in a few minutes. The loss is unmeasurable.

"We need some legislation," Charlie Marshall says. "We need some way to control the numbers of these free ranging dogs that we see. Prevention is the best way to break up a chase before it begins. There ought to be a fine for dropping dogs or turning them loose. Something must be done soon, or we'll be covered up with dogs if they keep increasing like they have in past years."

"Our men on the game management

areas should have the authority and backing of the law and the people to control dogs on management areas without any criticism," Marshall added.

What kind of a dog law should Georgia have? Well, there are more suggestions from various interested groups than Carter had pills. It does seem clear that the present arrangement of leaving dog control and rabies vaccination requirements up to local county boards of health hasn't worked. Out of Georgia's 159 counties, only 100 counties have a rabies vaccination requirement, and only 35 have a dog pound, so the other 65 probably aren't actively doing much about dog control. Thus, 124 of Georgia's counties have inadequate programs at present.

One of the proposals that seems to bear the most promise is the one worked out by the Georgia Animal Damage Advisory Committee, a group composed of representatives of the State Health Department, State Agriculture Department, State Game and Fish Commission, Cooperative Extension Service, and other interested groups.

Under the law proposed by the Committee, a state wide requirement that all dogs over the age of three months be vaccinated would be enacted. At the same time that the dog was vaccinated by a registered veterinarian, each dog owner would pay a \$2.00 fee per dog for his annual dog license. If two-year vaccine is used, a two-year license could be purchased for \$4.00. There would be no difference in the fee for male dogs and females, spayed or not. The dog license fee would be in addition to the regular veterinarian fee for vaccination, which would be set by the state, although it could be set by the county board of health.

After the fee was paid and vaccination completed, the veterinarian would issue a numbered tag to the dog owner, who would see that his dog wore the tag at all times, except while the dog was under the direct supervision of the owner. Thus, the dog would not be required to have the tag and a collar on while participating in a show, on a leash, in a pen, hunting, or otherwise under the direct control of his owner.

However, the dog tag would not be a license for the dog to run at large without supervision, and any dog found loose and a menace to human or animal health would be subject to capture and impoundment, and its owner liable for a misdemeanor charge.

Dog owners could be required to either have their name and address on the dog's collar, or tattooed on his ear.

All reasonable effort would be made to capture the dog. In some cases, other means might be necessary. However, dog control officers or wardens would not be authorized to kill dogs by shooting them without specific authorization

by the local board of public health or other authority in the case of individual problem animals. In such cases, only law enforcement officers and not members of the general public would be authorized to kill dogs. Trapping and poisoning programs would not ordinarily be used, except in certain highly limited special situations where adequate controls could be utilized.

Captured dogs would be taken to a dog pound located in easy driving distance of each county in the state, and held for a minimum of three to eight days before humane disposal. Pounds would be operated in a sanitary and humane fashion, and inspected regularly. Individuals claiming dogs would pay a pound fee of at least \$5.00, plus \$1.00 per day, with a higher fee for second offenders. All released dogs would have to be promptly vaccinated if they did not have a current tag.

No bounties would be paid on dogs, since this would encourage massacres of innocent pet dogs. Money collected from the dog license fee and the pound fees would be used to offset state expenses in the program. Although such funds would go into the State general fund as most other types of revenue do, they probably would pay for the cost of the program.

At present, the State Health Department issues about 350,000 vaccination tags a year to dog owners. Assuming that the total number of dogs licensed remained at least as high (it might increase with stricter legal requirements), at \$2.00 each, from \$500,000 to \$700,000 probably would be raised, enough to hire 50 dog wardens at \$4,700-\$5,200 a year, 50 helpers at \$4,308 per year, and two helpers for the 22 new pounds that would be required, also at \$4,306 per year, plus travel expenses and operating expenses of the pounds.

Probably a special appropriation of \$100,000 would be required by the General Assembly to get the program started by constructing 22 additional pounds at approximately \$5,000 each. With the 35 existing pounds, the 57 pounds would provide one pound that could be reached from anywhere in the state without driving across more than one county. Counties or cities with existing active dog control and rabies programs should be exempted from the provisions of the state law, unless they choose to merge with the state program.

In addition, funds from the dog licenses, etc. could be used to set up a special indemnity fund for cattle, swine, and sheep growers suffering losses due to dogs whose owner cannot be ascertained. This program perhaps could be administered by the State Agricultural Department by its inspectors, similar to the chlorea and brucellosis indemnity funds now administered by the department for cattle or swine destroyed be-

cause of disease. Livestockmen could also be authorized to kill dogs caught in the act of killing their stock. Dog owners would be liable for damages.

What state department should administer this dog control program? Well, there's an old saying about being elected dogcatcher that's still pretty valid. Everybody agrees that something needs to be done, but nobody is really volunteering for the job themselves. In most states and territories dog control is handled under the state health department as a part of the rabies control program (22). In 14 states and territories, the problem is the joint responsibility of the state health department and the state agriculture department. Four states leave the program exclusively to the agriculture department, five have given it to local governments, usually the police or sheriff's department, and two have added it to the duties of the state fish and game agency. Five states have no rabies law at all. The largest combined number, 36, thus leave it to the state health department as the most logical agency, sometimes handled through county health departments.

Exactly what department will handle the dog control program or whether a new, separate "dog control department" should be set up for it, along with the exact provisions of the new law, will probably be largely determined by seven men.

The seven men are all members of the Georgia House of Representatives Wild Dog Study Committee, created at the end of the last session by a special resolution authored by Representative Howard Rainey of Cordele, who is also chairman of the House Game and Fish Committee. In addition to Chairman Rainey, other members of the committee appointed by House Speaker George L. Smith include Kent Dickinson of Douglasville, a sportsman, deer hunter and member of the House Game and Fish Committee; Brunswick attorney Richard M. Scarlett; fish camp operator and farmer Dewey Rush of Glennville; Burton M. Wamble of Cairo, a member of the Georgia Livestock Association; cattleman and deer hunter (with legal dogs) Henry Reaves of Quitman, and Jack W. Shuman of Pembroke. Shuman and Scarlett are also members of the Home Game and Fish Committee.

In addition to their own personal interest in hunting and fishing, most of the committee members own dogs of their own, and are fully sympathetic with fellow dog owners who are anxious to see that an unduly restrictive law is not passed which will work a hardship on legitimate dog owners, especially dog hunting sportsmen.

Many of the committee members own cattle of their own, and have experi-

enced losses themselves to uncontrolled dog packs. While the dog problem is a complicated, sometimes touchy issue, a stable, level-headed committee has been wisely selected to deal with the problem. While the exact provisions of the bill that they will recommend to the January session of the General Assembly have not been finalized, there is every reason to believe that they will come up with a workable, effective law that will not unduly restrict any legitimate dog owner, while creating a program to deal with the estimated 300,000 Georgia stray dogs in both rural and urban areas.

Of course, when the bill is actually introduced, adequate publicity will be given to the provisions of the bill, copies made available to interested persons for comment, and the provisions of the bill closely examined and debated on the House and Senate floor, as well as in committee sessions.

The Committee has already held three public hearings on the dog problem in Atlanta, Valdosta, and Ringgold. An additional hearing may be held to discuss provisions of the proposed law itself.

At any rate, now is the time for interested dog owners, sportsmen, wildlife conservationists, livestockmen, health, agriculture, and game and fish officials to express their opinions on the proposed law, both to the committee members, and to their own local elected state representatives and senators, as well as the Governor. Both advocates and opponents of any such law should make their feelings known to these men, along with any comments on specific provisions of such a law.

Members of the General Assembly will take their positions on the bill both on the facts found and presented to them by the study committee and by the amount of interest and opinions expressed to them by their own constituents. If few interested individuals bother to let their elected representatives know how they feel about the bill, such a lack of interest one way or the other could be considered evidence that the public felt no need for such a law. Legislators are responsive to the opinions of their constituents. They count and read personal letters, post cards, phone calls, personal visits, and petitions.

What Georgia decides to do will be closely watched by many other states, especially the five border states and many others of the country where the dog problem has too long been swept under the rug and made a taboo subject. The time has come for the whispering to stop, and for the dirty laundry to be hung in public, after a good washing at the legislative laundry. The future of Georgia's deer hunting, livestock industry, and dog owning sportsmen depends on a fair solution now. 🐾

In the event that large acreages of marshlands are indeed privately owned, Harris believes that if their title is clearly established, owners could be persuaded to donate marshlands to the State or to private charitable foundations, in return for a tax deduction. Without a clear title, organizations such as the Ford Foundation refuse to accept gifts or to purchase marshlands for preservation.

Such a program would undoubtedly acquire the largest portion of marshlands that would be so important to

Clearly, the time to act is now.—J.M.

OUTDOOR WORLD



Teachers Apply for Resources Institute

The Natural Resources Institutes cover a wide range of subjects, including soils, water, air, forests, wildlife and recreation. Each subject is taught by people from that field from a responsible government agency, such as the Department of the Interior, Game and Fish, or the National Fish and Wildlife Commission.

To apply, or to receive further information concerning the Natural Resource institutes, teachers may write the Georgia Natural Resource Education Council, 401 State Capitol, Atlanta, 30334 or to the Registrar at either college of their choice. **J. Hall.**

Sportsman's Calendar

RUFFED GROUSE

Bag Limit—3 Daily, possession limit 6.

OPOSSUM

Bag Limit—None.

RACCOON

Bag Limit—One (1) per person per night.

SQUIRREL

Bag Limit—10 Daily.

BEAR

Season—November 4, 1968 through January 2, 1969 in Brantley, Charlton, Clinch, Echols, and Ware counties.

DEER

Season—November 2 through November 12, 16, 23, 30, 1968 or January 2, 1969, depending on area regulations.

QUAIL

Bag Limit—12 daily, possession limit, 36.

RABBITS

N. Ga. Season—November 18, 1968 through January 31, 1969.

J. Hall.

J. Ga. Bag Limit—5 daily.
W. Ga. Season—November 18, 1968 through February 28, 1969.
J. Ga. Bag Limit—10 daily.

TURKEY

W. Ga. Season—November 18, 1968 through March 1, 1969 in Baker, Calhoun, Decatur, Dougherty, Early, Grady, Miller, Mitchell, Seminole, and Thomas counties.
W. Ga. Bag Limit—Two (2) per season.
E. Ga. Season—November 23, 1968 through December 7, 1968, in Camden county.
E. Ga. Bag Limit—One (1) turkey gobbler.

SEASONS OPENING THIS MONTH

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, 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.

COMING EVENTS

Annual Convention of the Georgia Sportsmen's Federation, Dec. 7, 8. Dempsey Hotel, Macon, Ga. Non-members invited at regular registration fee.

STATE MANAGED AREA HUNTS

MANAGED DEER HUNTS SCHEDULE

PRIMITIVE WEAPONS (EITHER SEX)

Dates	Areas
Dec. 16-21	Piedmont Exp. Station

BUCK ONLY

Dates	Areas
In Season	Altamaha and Lake Seminole
Nov. 4-Jan. 2	Brunswick Pulp and Paper Company (Special regulations apply to each tract of this area. See Managed Hunts brochure for details.)
Dec. 2-7	Waycross State Forest
Dec. 16-21	Sawanooshee (permit required, no fee)

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.

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)
Dec. 7-Jan. 15 Tues. & Sat.	Altamaha (Butler Island)	Waterfowl
Dec. 6-Jan. 25 Fri. & Sat.	Swallow Creek, Coleman River	Grouse, Squirrel, Rabbit
Dec. 6-7, 13-14	Lake Burton	Squirrel, Grouse
Dec. 4-14 Dec. 28-Jan. 31 Wed. & Sat.	Piedmont Exp. Sta.	Quail, Squirrel, Rabbit, Doves (In season)
Dec. 4, 7, 11, 14, 18, 21 Jan. 4, 8, 11, 15, 18 Wed. & Sat.	Cedar Creek	Quail, Squirrel, Rabbit, Doves (In season)
Dec. 6-7, 13-14	Chattahoochee	Grouse, Squirrel, Rabbit
Dec. 8, 12, 19, 26 Jan. 2, 4, 9, 11, 16, 18, 23, 25, 30	Bullard Creek	Quail, Squirrel, Rabbit, Dove, & Snipe (In season)
Dec. 30-Jan. 4	Suwanossee	Squirrel, Quail, Rabbit
Dec. 6-7, 13-14	Blue Ridge	Grouse, Squirrel
Jan. 20-25	Arabia Bay	Quail, Squirrel, Rabbit
Dec. 4-21 Jan. 1-Feb. 1 Wed. & Sat.	Oaky Woods	Quail, Squirrel, Rabbit
Dec. 4, 7 Jan. 4, 8, 11	Clark Hill	Quail, Squirrel, Rabbit, Doves, Ducks (In season)
Dec. 6-7, 13-14	Warwoman	Grouse, Squirrel
Dec. 12, 13, 14	Waycross State Forest	Quail

DECEMBER 1968

Day	HIGH WATER				LOW WATER	
	A.M.	H.T.	P.M.	H.T.	A.M.	P.M.
1 Sun	5:30	7.2	5:54	6.4	11:42	11:48
2 Mon	6:18	7.4	6:36	6.3		12:30
3 Tues	6:54	7.5	7:12	6.3	12:30	1:12
4 Wed	7:30	7.5	7:42	6.2	1:12	1:54
5 Thurs	8:00	7.5	8:18	6.0	1:54	2:30
6 Fri	8:36	7.4	8:54	5.9	2:30	3:12
7 Sat	9:12	7.3	9:30	5.8	3:12	3:48
8 Sun	9:48	7.1	10:06	5.7	3:48	4:24
9 Mon	10:30	6.9	10:48	5.7	4:30	5:06
10 Tues	11:18	6.8	11:42	5.8	5:12	5:48
11 Wed			12:00	6.6	6:00	6:36
12 Thurs	12:30	6.0	12:54	6.6	7:00	7:30
13 Fri	1:30	6.2	1:48	6.5	8:00	8:24
14 Sat	2:24	6.6	2:42	6.5	9:00	9:18
15 Sun	3:30	7.0	3:42	6.5	10:00	10:12
16 Mon	4:30	7.4	4:48	6.7	11:00	11:06
17 Tues	5:30	7.9	5:42	6.8	11:54	
18 Wed	6:24	8.3	6:42	7.0	12:00	12:48
19 Thurs	7:18	8.5	7:36	7.0	12:54	1:48
20 Fri	8:12	8.5	8:30	7.0	1:48	2:42
21 Sat	9:06	8.3	9:24	6.9	2:48	3:36
22 Sun	10:00	8.0	10:18	6.7	3:42	4:24
23 Mon	11:00	7.6	11:18	6.6	4:36	5:18
24 Tues	11:54	7.2			5:30	6:12
25 Wed	12:18	6.5	12:48	6.7	6:30	7:06
26 Thurs	1:18	6.4	1:42	6.3	7:30	8:00
27 Fri	2:12	6.4	2:36	6.0	8:30	8:54
28 Sat	3:06	6.4	3:36	5.7	9:30	9:42
29 Sun	4:00	6.4	4:24	5.6	10:24	10:30
30 Mon	4:54	6.6	5:18	5.6	11:12	11:18
31 Tues	5:42	6.7	6:06	5.6		12:00

TIDE TABLE

Dec. — 1968

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)	0	57
Hilton Head, S. C.	0	10
Thunderbolt	0	20
Isle of Hope	0	40
War Saw Sound	0	50
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

New Moon	Full Moon	Last Quarter	First Quarter
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DECEMBER 4 13 19 26

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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