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Outdoors in Georgia

January 1976 50c

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Outdoors in Georgia

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MAGAZINE STAFF
Phone—656-5660

David Cranshaw · Editor-in-Chief
Bill Marehead . . . . . Editor

Aaran Pass . . . . . Managing Editor
Rebecca N. Marshall . . . . . Writer
Dick Davis . . . . . Writer
Bill Hammack . . . . . Writer
Jingle Davis . . . . . Writer
Susan Waad . . . . . Writer

Liz Carmichael Janes . . . Art Director
Jose Vinas . . . . . Artist
Bob Busby . . . . . Photo Editor
Edward Brock . . . . . Photographer
Cathy Cardarelli . . . . Photographer
Jim Cauch . . . . . Photographer

Priscilla C. Pawell . . . Circulation Manager

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is my swan song. I am retiring as Deputy Com-
er on the first of January. By the time you read
vill already be referred to as Ole Whasizname
sed to Work Here. But as I go, I've got a few
parting for the readers of *Outdoors in Georgia*.

this business of conservation and stewardship
al resources needs all the help it can get from
age citizen. We already have all the help we
m special interests and, in the nature of politics,
y to get much more.

unusual example of special interests, when I
e to the old Game and Fish Commission, there
very few people with our University system
w their pay as ecologists. Now, the woods are
hem (I should say the laboratories are full of
he woods are as bare as ever). A whole new
nterest group has arisen, and sometimes I won-
he propagation of this new religion—environ-
protectionism—consumes too much of our en-
ving little to protect the environment!

dly the Alcovy Swamp and our coastal marshes,
mples of our precious natural heritage, are *not*
om destruction—we have merely protected them
time being. We can lose them at any time—at
e the average citizen forgets to insist that they
ved. There are always people ready to use our
non natural heritage for their own selfish needs.
e people are not mean or ugly—they are simply
an beings like you and I. When we face these
le, be they environmental extremists or developers,
we have to be selfish for the average man, for the common interests, and for future Georgians.

The nature of the conservation game is politics. Get apathetic about politics, if you will, that is your prerogative. Then watch as special interests—who are never apathetic about politics—gobble up your swamps, woodlands, and wildlife. It can happen—indeed, it will happen—if you don't keep it from happening.

I am no doomsday prophet. I do not believe it is too late to save our environment. I believe we can have orderly growth and development while protecting our resources. Preservation is not always the single best use of a resource, just as wholesale development is not always the best use. I am more optimistic about our natural resources than I have ever been, for we, all of us—from the urban Atlantan to the farmer in Attapulgus, have seen what can happen if we forget.

It has always been our goal to manage Georgia's resources in such a way that those of us living today could reap a bountiful harvest of our game and fish, enjoying these resources to the fullest, while managing and conserving them in such a manner that generations of Georgians yet unborn may also be able to enjoy the same natural resources.

This may be my swan song but it is just the beginning for the outdoors in Georgia. Let us all fight to keep it the way it should be. I may be retiring but I am not retiring from my desire to have a Georgia that remains full of nature's handiwork.

George T. Bagby

Under the Gold

Georgia's Capitol, a continuing legacy

Bill Hammaek

earing a 43-ounce cap of Georgia gold worth about 00 on today's market stands the state's 86-year- Capitol, a beloved landmark whose value eannot easured in money. The State Capitol is more than rkplaee in an array of state offiee buildings—it is ritage to all Georgians, and a heritage wears no tag.

this day of steel and glass and eonerete buildings h have about as mueh personality as a rusty re- cing rod, the stately Capitol—with its elassic ssanee arehiteeture—is a sight for skyseraper- y eyes. But only a few deeades ago it had beeome thing of an eyesore.

ıe post-World War I depression hit the farm harder longer than any other seetor of the national eeon- Georgia, then firmly rooted in agriculture, suffered ely, and the government had to hoe a barren row. eking neeessary upkeep money, state offieials had hoiee but to let the Capitol baekslide. Its grassy s grew patehed and brown, and its shrubbery was gled and sparse. Inside the grand old building, igs eraeked, paint peeled, the dome ereaked and d dangerously. The eopper lady atop the dome was lly falling apart. Her lifted toreh-bearing arm had worked loose and in high windstorms it swung baek and forth as though she were signaling for help.

Help was on the way. When he was governor, U.S. Senator Herman Talmadge started the Capitol spruce-up by having the exterior sandblasted. In 1957 Governor Marvin Griffin turned the jurisdiction of the building and grounds over to Seeretary of State Ben W. Fortson, Jr., making the neeessary funds available for renovation.

"Mr. Ben" remembers investigating the Capitol's disrepair. "We found some seary things," he said. "For instanee, people eouldn't go up into the dome beeause it was too dangerous. The stairway was in terrible shape. And the dome was settling so badly we had to jaek it up." Mr. Ben went to work with vigor on his new Capitol assignment: restoring, refurbishing, repairing, rebuilding.

Today the imposing edifiee glows in its five-aere setting of green lawns and bright flowers and well-tended shrubs. It has beeome a meeea for tourists and a happy experience for Georgia students who absorb history the exeiting way as they tour the Capitol.

Some of the Georgians who forged the history of our State are represented in seulpture that surrounds the

by Cathy Cardarelli

building. There are statues of General John B. Gordon, the first Governor to move into the Capitol; Thomas E. Watson, who served as both U.S. Representative and Senator and who established Rural Free Delivery; Eugene Talmadge, elected Governor for four terms; and Governor and Mrs. Joseph E. Brown. The sculpture of the Browns is one of the few husband-wife statues in the world and the only one of a governor and his first lady. The most recent monument, dedicated last year, is of U.S. Senator and former Governor Richard Brevard Russell, Jr. The uplifted right arm of Senator Russell's statue, viewed from a certain angle on Washington Street south of the statue, seems to gesture toward the Capitol as though inviting attention to this remarkable building.

And Georgia's Capitol was remarkable from the first. It was built within its initial appropriation, a feat which seems incredible when considered in light of today's runaway inflation and the overruns which beset current construction projects. Even in the 1880s, when the Capitol was erected, the accomplishment was unprecedented. The legislature appropriated $1 million for the structure and after all the bills were paid, the building fund account showed a balance of $118.43.

Before work could begin on the marble and limestone landmark which would become an arena for epic political battles, there was a fight about where the Capitol was to be located. The old capital city, Milledgeville, fought to retain that distinction, while Atlanta struggled to acquire it. Atlanta won.

In 1879 the Legislature designated the old City Hall area in Atlanta as the site of the new Capitol. Work did not begin right away because of a situation familiar to state officials today—shortage of funds. Not until 1883 was the Legislature able to provide the money, stipulating that costs should not exceed $1 million. The lawmakers named a five-man commission with the Governor serving as ex-officio chairman to direct construction work. The commission chose a design submitted by a Chicago architectural firm and, after calling for bids twice, picked an Ohio builder. Indiana limestone was selected for the exterior after the commissioners looked into the possibility of using Georgia marble or granite. They rejected the bid incorporating Georgia marble because it overran the budget by about $15,000.

However, the commissioners were able to build the halls—including the walls, floors and stairs—of Georgia marble, and they used other native materials in the construction as often as they could. Iron girders were fabricated in Pennsylvania of Georgia ore; most of the woodwork was cut in Georgia forests, and 450,000 bricks from the old City Hall were salvaged for the new Capitol.

When it was completed in 1889, five years after work started, the dedication ceremonies drew huge crowds of people who marveled at the impressive structure which was, at the time, Atlanta's tallest building. They packed the interior, many stopping to gape in awe at the breathtaking open rotunda which rises 237 feet from the second floor through the tiers of upper stories to the ceiling of the dome. They crowded around the windows of the dome, admiring the sweeping view of Stone Mountain, Kennesaw Mountain, and the rolling countryside all around.

The Capitol today attracts a steady stream of visitors who come to see the chambers of the House of Representatives and the Senate and the offices of the Governor. Through the years, various groups and agencies have contributed to the Capitol's charm with displays of state minerals and wildlife, Indian artifacts and exhibits on state agriculture and history. The building abounds in historic works of art. There are portraits and busts of men and women who contributed significantly to the state.

Georgia's founder, General James Edward Oglethorpe, is there, along with Button Gwinnett, one of Georgia's three signers of the Declaration of Independence. Gwinnett's rare autograph is worth a fortune today—Georgia owns one. Other Georgians are honored—Margaret Mitchell, author of *Gone With the Wind;* Moina Michael, who started the custom of wearing red poppies on Veteran's Day; Juliette Gordon Low, founder of the Girl Scouts; Dr. Martin Luther King, Jr., winner of the Nobel Peace Prize in 1964; Dr. Crawford Long, the first surgeon to use ether as an anesthetic; Alexander Stephens, who served as vice president of the Confederacy and later as governor of Georgia. Stephens was a man who never topped the hundred-pound mark on the scales. A political opponent once bellowed at Stephens that he could grease him and swallow him whole. Stephens replied that if his antagonist carried out his threat, he'd have more brains in his belly than he had in his head.

The quartet of portraits around the top of the rotunda are the oldest owned by the state. Of Washington, Jefferson, Franklin and Oglethorpe, they were painted in 1826 for $200. In the 1950s, when the portraits needed cleaning and restoration, the bill came to $30,000.

The golden cap on the Capitol dome was not part of the original construction. At first, the dome was topped with homely galvanized steel. Over the years the steel deteriorated and when the Capitol was renovated, in 1958, citizens of Dahlonega and Lumpkin County donated 43 ounces of native gold for the dome. The old steel was stripped off, exposing the terra cotta block underpinnings, and gilders applied the gold leaf in strips four-millionths of an inch thick. At the same time, the Capitol's numerous fireplaces were covered, the tall ceilings were lowered and a number of modern windows were installed. Although the Secretary of State's office was refurbished and restored, Mr. Ben insisted that it retain its tall ceilings and lofty wooden windows.

The figure atop the dome is a lady of some mystery. The 2,000-pound statue seems appropriate to the structure, but Secretary of State Fortson says he can find nothing in the original building plans calling for a statue on the dome. One report says that the figure-

Right: By May of 1958, renovation of the Capitol was underway. Bottom right: Ben Fortson rolled his wheelchair to a precarious perch on the dome to inspect repairs.

Below: Here's what the fourth floor looked like before restoration started.

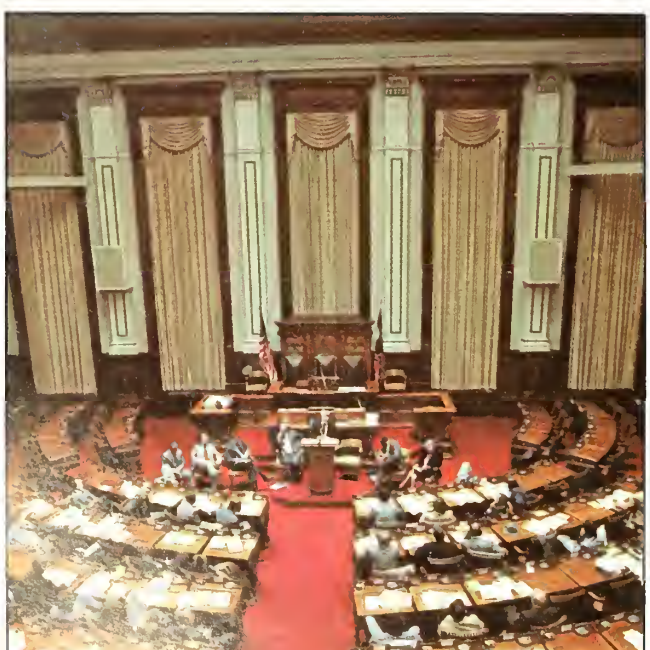
Photos courtesy of Secretary of State

Photos by Cathy Cardarelli

Photo by Bob Bus

Exhibits display Georgia's myriad wildlife.

From the rotunda, looking 237 feet up toward the dom



Color motif of the chamber of the House of Representatives is red. In the Senate Chamber, it's bl

cast by an Ohio firm—was intended to grace that state Capitol. Another account says the statue was creat specifically for the dome of Georgia's Capitol. It hard matters now, however, for "Miss Freedom" stands, feet tall, on Georgia's Capitol dome and none wou dream of removing her.

In one hand she holds a sword, which is about t only weapon Secretary of State Fortson failed to u in his celebrated war on the starlings. In 1963 hord of starlings invaded the Capitol—roosting in the eav perching on the window sills, chittering shrilly fr the shrubs, and covering everything with a smelly sno storm of white droppings. The starling, introduced the United States in the late 19th century, is genera despised because of the damage it does to buildings a statues. (See "The Invaders," *Outdoors in Georg* December 1975.)

When the starling plague struck, Mr. Ben fou back. He fought with shotguns—his gunners brou down thousands of the feathered varmints. But w

to by Cathy Cardarelli

gs of all 50 states hang in the Capitol's Hall of States.

lions of the birds roosting around the Capitol, the erence was scarcely noticeable.

He tried smudge pots; he tried feather dusters as reerows. Somebody suggested moth balls in gallon up buckets, and Fortson festooned the trees around Capitol with them. Some of the buckets still hang re today.

For seven and a half years, the starlings came as ularly to Georgia's Capitol as the swallows come to pistrano. They arrived after the first November cold p and stayed until March, oblivious to the curses led up at them by passing pedestrians.

The Secretary of State, however, is not a man to e up easily. People joked about Ben Fortson's war h the starlings, though the damage they did wasn't ny, nor was the expense of cleaning up after them h spring.

Mr. Ben put his agile brain to work. He concocted lan to get rid of the varmints by keeping the birds n sitting down. He stocked up on Roman candles and one early November, he and his chosen attack team maintained a 24-hour vigil at the Capitol for four solid weeks.

They were ready on the night the starlings arrived, seemingly by the millions. Fortson and his troops cut loose with 360 Roman candles. It looked like an explosion in a fireworks factory. It looked like an Armageddon of anti-aircraft fire. It looked like Sherman was on the rampage again. The Roman candles thumped and spit red and blue fire in high-arching trails, and the starlings retreated with squawks and flaps and flutterings. Every time the birds would swoop in to roost, Mr. Ben and his men would open fire.

On the following night, the starlings came swarming in again. Again they were met by Fortson's withering Roman candle firepower. He was determined that not a single starling would find a roosting place. On the third night of the battle, only about a thousand starlings showed up. They were ruthlessly driven away by the Roman candle corps. On the fourth night, Fortson and his men searched the skies, waiting, weapons at the ready. No starlings. The hours passed, but the starlings never came. And they've never been back since.

Victor in the starling war, the Secretary of State took care of the Capitol for 14 years.

In 1971 Steve Polk, Director of Administration of the Georgia Building Authority since 1968, was given the added responsibility of managing the Capitol and its grounds. Polk, who came up through the ranks in the Georgia State Patrol to earn his captain's bars, was born and raised on a farm in Newton County.

Captain Polk says he was a pretty good farmer, but the record shows he is a top horticultural producer. In 1974 the crop of beauty he raised on the Capitol grounds won the first award ever presented to a governmental organization by the Men's Garden Clubs of America. It was the second such award ever conferred in the 44-year history of this national group of over 300 garden clubs. Their "Certificate of Meritorious Achievement" was awarded Captain Polk "for beautification of Capitol square . . . for contributing to the quality of our Nation's beauty and environment."

In January, 1975 Captain Polk was officially commended for bringing "much honor and recognition to the State of Georgia through his fine efforts to enhance the beauty of the Capitol area."

Besides enhancing the Capitol's beauty, Captain Polk supports all efforts to "bring in the school kids." He says, "We want to make their visits to the Capitol as interesting as they are educational, and as educational as they are interesting."

To this end he enlisted the consulting services of the late Bernice McCullar, distinguished Georgia educator, historian and author.

Captain Polk regards that part of his job devoted to the Capitol and its grounds with a farmer's down-to-earth directness. "We've got to look after the Capitol," he says. "After all, it belongs to Georgia's 4½ million people."

To Have More Quail

By Ron Simpson

Photography by Bob Busby

Probably more is known abo
management of the bobwhite qua
(Colinus virginianus) than any oth
upland game species in North Ame
ica. Despite this plenitude of info
mation, relatively few Georgia lan
owners ever attempt to mana
quail.

Most don't know how, because
practical management informati
has ever reached them. Others m
feel quail management is too cost
in loss of productive agricultu
acreage and in monetary outlay. S
others may have tried some mana
ment without any technical ass
tance and realized little or no
crease in the number of quail dur
the hunting season.

Quail populations can be
creased on most areas if the ri
habitat management practices
implemented. And this often can
accomplished at minimum cost.
advice on correct management pr
tices, landowners should contact
Game and Fish Division. Pro
sional wildlife biologists are av

e through an extension service, their recommendations often determine the management an needs to produce the desired re- s at the least cost.

Federal cost sharing on certain dlife management practices is ailable. For detailed information ut a particular county, contact county's Agricultural Stabiliza- and Conservation Service office. Before discussing recommended ctices, it is wise to look at the white's life history. Understand- the quail helps in understanding certain practices are important.

The familiar "bob - bob - white" stle, heard as early as February, sure sign that the breeding sea- is not far off. Covey break-up pairing (the bobwhite is monog- ous, one male mating with one male) starts in March. Usually e is about a 15% surplus of es, insuring that all females have ate.

May, June, July, and August are e most important nesting months. A few nests may be built as early as March or as late as October, but this is not the norm. Quail select nest sites where vegetative ground cover is about 50%; cover of this type offers optimum screening for nests and adequate passageways for quail movement.

If the nest is broken up, the female will usually re-nest. The number of eggs laid in a nest decreases with each new attempt: hens in Georgia lay an average of 16 eggs in nests built in April but average only 9 eggs in August nests. And contrary to many stories about multiple broods, a pair of quail will raise only one brood of chicks per year. Renesting occurs only if previous attempts fail.

Studies have indicated that chick mortality between hatching and 15 weeks may be as high as 50%. This loss can be reduced by habitat management practices that consider the special needs of young quail. The chick's diet must be high in protein; this is supplied through consumption of animal matter. Management that produces an abundance of insect life at the quail's level, and which protects the feeding birds, will increase chick survival.

The annual diet of a bobwhite is comprised of 60-65% seeds, 15-20% fruits, 15% animal matter, and 5% green forage. The importance of these varies with the seasons. Peak fruit consumption occurs in the late spring and summer, when such foods are available, and consumption of animal matter is greatest in summer and fall.

The bobwhite uses a variety of different covers. In addition to the nesting cover, quail must have protective cover for feeding, roosting, loafing, and escape. One area of cover may often serve a dual role. Generally, feeding and loafing cover has grass and herbaceous vegetation which is slightly more open or sparse than roosting and escape cover.

The greatest loss of bobwhites in Georgia, excluding chicks, is during either the hunting season or the

For successful nesting, quail depend on good nesting habitat, favorable weather, and an adequate food supply.

Controlled burning is a variabl technique in quail habita management. It removes dea ground litter and encourages th growth of plants which furnis the birds food and cove

After burning, a fresh, gree understory sprouts if the forest ha been properly thinne

breeding season. Where habitat conditions are good and hunter harvest is low, spring and summer losses will equal or exceed those of the winter.

A quail population is controlled by the quality of available habitat. There can be only as many quail as the habitat will support—no more, no less. Losses from other factors such as predation, disease, and, in some cases, starvation, must occur if the excess is not harvested. Summer quail production usually exceeds the ability of the habitat to support all birds through an entire year. Natural mortality approaches 80%, so hunters should be able to harvest 30-50% of the birds without endangering next year's population.

Historically, predation and predator control usually have received considerable attention in quail management programs. But more often than not, these attempts were ineffective. As mentioned previously, natural mortality will maintain a bobwhite population that is balanced with what the habitat can support, and predation is simply one of nature's methods of preventing overpopulation.

Predation is usually a problem only where man has changed the ecological balance. A quail population that does not exceed the habitat's carrying capacity is highly resistant to predatory pressure. Many of the quail taken by predators are those that are diseased or crippled. Although foxes, bobcats, hawks, and owls do take an occasional quail, they can actually aid the bobwhite population by taking a large number of rodents. Rodents compete with quail for food, and when the rodent population is high, they can destroy a substantial proportion of the quail nests on an area. Because this balance between predators and prey species is so complex, no control of predators should be attempted without substantial reas and professional advice.

The vast majority of the habi improvements needed for quail related to food, cover, or both. U managed land in Georgia usua produces little food and has eitl too much or too little cover.

The following management pr tices are the ones most commo used in the Southeast. They are p sented to give people interested managing quail some knowledge what is involved in producing m birds.

Quail habitat management based on varying or diversifying f est, brush, grass, and cultivated l to produce the maximum amoun food and cover. However, shuff all of these land-use types on a f for maximum quail benefit is selc feasible or economically justifia An alternative is to manage e type individually. Management p tices are designed to duplicate in

In agricultural areas, waste grain can be an important food source fo quail, particularly if it is near protective cover.

habitat the same situation that exists where the different types meet or border each other.

The widespread, and probably most beneficial, management practice used in pine and low-grade hardwood stands is controlled burning. Burning removes the thick litter (pinestraw, leaves, grass, etc.) that is usually present in unburned stands, and it stimulates the germination of the leguminous plant seeds such as partridge pea, lespedeza, and butterfly pea. These are very important bobwhite foods in late winter. Insects necessary for chicks after hatching are also greatly increased by burning an area, and the cover is thinned enough so that the insects can be found by chicks.

February or early March is the best time to burn, but if hardwood undergrowth is dense, a burn delayed until the undergrowth begins to leaf out assists in controlling and reducing this problem. The frequency with which a site is burned depends on soil fertility and moisture. Average sites probably need burning once every two years, poor dry sites once every three years, and rich moist sites every year.

If all ground cover will be removed by burning, selected areas of cover should be protected from the fire. Clumps of desirable shrubs (wild plum, hawthorn, hackberry, sassafras, blackberry) 20 to 30 feet in diameter provide protective cover and should be saved. One to two acres of broomsedge, wiregrass various other clump-type grass suitable for nesting should be pr tected for early nesting attempt Harrowing or constructing fir breaks will keep the burn from suc areas.

If a stand of timber is so den that direct sunlight cannot reach th ground, burning alone will be of li tle value. Such a stand should b thinned. Food and cover plants the developing understory vegetatio will then be able to receive the su light necessary for growth.

Thinning of over-stocked timb is also a beneficial forest manag ment practice; it releases the r maining trees from an over-crowd situation and increases their grow rate. In stands where there is a lo rotation period, such as saw-timb or pole timber, the forest cano opened by a thinning will gradua be closed as the trees grow. Seve thinnings are necessary during full rotation period to maintain productive understory.

Cover and food may also be p vided by introducing various pla recognized as valuable to qu Some of the best ones are Clem combine pea, kobe lespedeza, l rean lespedeza, bi-color lespede wild plum, and hairy vetch. In life, as well as seeds, are made m available to quail by many of th plantings. In fact, the quail pop tion on some areas may actu benefit more from the insects duced and consumed by quail ch than by the seed produced in th plantings.

The size of food patches sh be at least one-fourth acre. number of patches needed is termined by the vegetative char of the managed area and by the sires of the manager. A mini of one cover area, planted or

ıral, should be developed for every
) acres of managed land.

Small openings, as well as thin-
ings in quality hardwood stands
ın be developed to increase the
ıail productivity in these areas.
hey should be about one-half acre
size and can be planted in food
ants such as Clemson combine pea
ıd partridge pea. A border strip of
recia or bi-color lespedeza about
5 feet wide can be added for cover.
gain, the dictates of the land and
anager will determine the number
ıd distribution of these.

Pasture and cropland are almost
ways very low on cover for quail,
ecause of heavy cattle grazing and
day's "clean" farming practices.
learing every fence-row and clean-
g areas of low productivity, even
hen they may not be worth farm-
g, decrease the natural diversity
ıd the value to quail. Heavily-
azed areas are also normally low
quail benefits.

Open pasture and cropland can
e made more habitable for quail by allowing border fence-rows to revert to natural vegetation, and by developing thickets and hedge rows across the fields for cover. Quail will not use the middle of even a 20-acre pasture or field, they will use only the edges where there is protective cover.

The extent to which an area may be crossed with the thickets and hedge rows must be decided by the farm manager.

In pastures these should be plants such as wild plum and hawthorn that are seldom grazed by cattle. These plants will protect some quail food plants from grazing, as well as providing cover. Fencing of cover lanes and food patches is an effective, but costly, practice.

On cultivated land, a hedgerow or cover land can simply be a strip about 15 feet wide which is left out of cultivation. Permanent lanes can be established by leaving the same strip uncultivated for several years. Grass, shrubs, and tree species usually need only 3 to 5 years to become established. If more rapid development and results are wanted, these strips can be planted in pine with clumps of plums, etc., at regular intervals. These clumps of protective cover add to the diversity of land barren of quail benefits.

Where cultivated land is bordered by woodland, a 15-to 20-foot strip can be left between the two. It can be planted or left to revert naturally to desirable species like beggarweed and ragweed. Serecia or bi-color lespedeza are two of the perennial species that can be established between woodland and cultivated land.

These are but a few of the practices that are beneficial to quail. Some may be more satisfactory on one area than on another. Consult Game and Fish Division biologists to determine which practice or practices to use. There may be some simple practices for small areas that are compatible with the major land-use and which will provide all the bobwhites' life requirements.

Netmakers

By Jingle Davis

Photography by Cathy Cardarelli

Hieks Walker of Sapelo Island is one of the handful of netmakers on the Georgia coast who knows how to knit a cast net, starting from scratch with a pound ball of twine, a needle and a wooden gauge. Now in his seventies and retired, he ean take time off from tending his sugar cane patch and chiekens to string up a net on the small front poreh of his frame house.

Like the spiders spinning their own nets in the rafters above his head, Walker's movements are swift and eertain. His large, knarled hands move skillfully through the silky mesh as his dark eyes drift thoughtfully out to the sunlit pasture where a swaybaeked mule is feeding. A pileated woodpeeker rat-a-tat-tats from his pereh in a pine tree and a dove eoos sadly from the fencerow.

The remote island settlement where Walker lives is ealled Hog Hammoek, and its people—most deseendants of slaves who planted and pieked cotton for Sapelo's earlier owners—have experieneed a eertain amount of eultural isolation from mainland Ameriea. Walker, for example, still knits all of his east nets by hand.

He is amused by a question as to whether he profits financially from his netmaking work. He shakes his head slowly and grins, showing a wide gap where several front teeth are missing. "No, no, this no way to make money. I do it this way 'ease this the way my daddy teaeh me when I was thirteen years old. Maybe I make a net for a friend along and along, but nobody make no money buildin' a net this way. Not any more."

The east nets Walker makes today are almost the same as nets made by fishermen three thousand years

go. The materials are more sophisticated—cotton nd nylon twine instead of vines and grasses; lead inkers instead of smooth river pebbles for weights; ow bone or plastic for the net's collar instead f a slice of animal horn.

But the basic design is the same. Ancient shermen knitted the same circle, varying the size of ie mesh and the length of the net to their own eeds. At the center of the cast net is a collar of bone r plastic or metal. Several dozen lines, called tucks, un from the net's weighted perimeter up through ie collar, where they fasten to a swivel. The swivel attaches to one end of the hand line, while the ther end is looped securely around the caster's wrist.

After the fisherman casts his net, he retrieves by pulling the hand line. As he pulls, the tucks draw ie bottom of the net inward and upward toward ie collar, trapping his catch in a neat bag.

Walker says he builds his own cast nets about ve and a half feet from collar to weighted foot line, ut adds that his cousin, Earl, knits his nets nger. "My cousin a big man—stands about six nd a half feet tall. He need a big net."

Earl Walker's nets have a diameter of fourteen feet, nd measure close to fifteen yards around the rcumference. If Earl makes a perfect throw—and Earl sually does—his net will blanket a hundred nd fifty square feet of sea water and possibly trap whole school of mullet.

Tracking Earl down in order to get a first-hand emonstration of his net casting prowess proved to e a bit of a problem. Earl's wife said he'd gone to ank's to help butcher a pig. At Bank's house, turned out that Earl had left to go by basketmaker llen Green's place. A score of people were athered in Green's back yard, boiling down freshly-queezed cane juice in outdoor vats, but again, arl had already come and gone. "Try Bennie's store," reen advised. "He not be there now, he be there irectly."

Bennie Johnson's general store, the only commercial enture on Sapelo Island, is in the heart of the log Hammock settlement. Green knew that ventually Earl would drop by Bennie's for a cold drink nd some relaxed sociability.

Sure enough, Earl arrived at Bennie's a short me later and agreed to postpone the ten speckled out he'd caught down at the Big Hole.

"You want to see me throw a cast net? Just row it?" he asked incredulously. "This not the right me to catch mullet."

Assured that he wasn't expected to catch any fish, arl led the way to Sapelo's pristine beach.

Earl, as noted, is quite tall and lanky, but when e throws his cast net, he moves with a dancer's race. In his right hand, he holds the fifty-foot coil of and line and, with the same hand, grasps the net t a point midway down its length. Then he raises ie net's skirt to his mouth, gripping the foot line—or perhaps a lead sinker—tightly in his teeth. He slides his left hand as far as he can reach down the foot line, giving himself a triangular contact with the web of mesh and metal.

Earl swings the net across his body, twisting at the waist and bending his knees slightly. In a surge and flow of motion, he spins the net outward, timing the release of teeth and hands to a split second so the net will flare into a complete circle. Many a novice, learning to cast a heavy mullet net, has painfully loosened a few incisors by letting go with both hands but hanging doggedly on with his teeth. Casting a net well requires almost as much skill as knitting a net by hand.

Since Earl's nets are weighted with about eight pounds of lead and weigh even more when they're wet, he may be one of the world's great undiscovered olympic-class throwers.

Both Earl and Hicks say it takes several weeks to knit a cast net and even longer to build the smaller-meshed cast net for catching shrimp.

But even the largest of the Walkers' cast nets are tiny things when compared to the giant otter trawl nets pulled by Georgia's commercial shrimping fleet. These nets often range upwards of seventy feet, and if Georgia shrimpers knitted such monsters by hand, the price of shrimp would undoubtedly skyrocket.

Fortunately, there is an alternative.

O. Fulton Love Jr., who operates Georgia's largest commercial net shop, located on the banks of the Ogeechee River near Richmond Hill, said his shop probably turns out 200 to 300 nets each year. With this sort of volume, Love says hand-knitting the mesh as Walker does is out of the question.

"We buy machine-made mesh in bales from companies in Michigan and Tennessee," Love said. "My assistants and I use patterns—just like dressmaking patterns—to cut up the material. We sew up the edges, hang the net to the lines, add the weights and floats. About the only time we use a net needle is to repair a net."

Love started out as a shade-tree netmaker, building beach seines and gill nets and catfish traps. At that time, he was working as a commercial shrimper, but a bad season convinced him he could make more money building and repairing nets than he could as a fisherman.

"That was eight years ago," he says. "We've built up the business, and I guess the Ogeechee Net Shop is doing about $200,000 of volume a year now. If everything goes well, I'll put on a truck next year and make regular calls on the shrimp docks up and down the coast, picking up and delivering nets."

After Love's nets are stitched into final shape, he dips them in vats of "Plastinet"—a greenish fluid that stiffens the net fabric and makes it more durable. "I think we're the first outfit on the Georgia coast to use the green dip," Love said. "It's far superior to the old hot tar dip. Even though the green dip runs

about eighty cents a foot and you can dip a whole net in tar for about $20, I haven't had a single fisherman ask me to use tar dip this year."

The green dip, he said, makes the net fish better. "It doesn't hold as much water and it's easier to clean."

Love picked up a large styrofoam fishing float and threw it thirty feet up into the top of a giant net draped over a tall creosote pole. The float hung up near the top of the net.

"O.K., Shadow, get it, boy," he told his ninety-pound black Labrador retriever, and, claws clutching and muscles straining, the dog climbed straight up the fragile-looking mesh. At the top, Shadow took the float in his mouth and came bounding proudly down to his master, leaving the net entirely intact. Love had proved his point about the green dip.

Helping Georgia's commercial fishermen upgrade their industry is the job of Jack Rivers, a fisheries specialist with the University of Georgia's Marine Extension Office in Brunswick. Rivers, a seventeen-year veteran of the National Marine Fisheries Service, probably has the best overall view of Georgia nets and netmakers. Obviously, nets are as vital as boats to the Georgians who make their living shrimping.

"With a few notable exceptions, the nets Georgians use are pretty much the same as those used in Biblical days," he said. "Fishermen tend to be traditionalists—I come from a Portuguese fishing family myself—and they usually modified their nets with small variations here and there, rather than making radical changes. But the otter trawl net, used almost exclusively by the state's commercial shrimp boats today, is a real newcomer to the net business. It's only been around about half a century."

Although otter trawls come in all sizes, the net essentially conforms to the shape of a wishbone, with wooden doors attached to the wishbone's legs. Otter-brown wooden boards called doors, angled to resist the water as the net is dragged along by twin cables from the boat's booms, spread the wings of the net. At the juncture of the wings is a purse-shaped bag, complete with drawstrings, where the shrimp are trapped. When the net is winched back on board the boat, the boat's crew—called strikers—loosens the purse strings and the catch pours out on deck.

Before the days of otter trawls, Rivers said, commercial fishermen were more or less confined to fishing with gill nets, cast nets, beach seines or purse seines. While all of these net styles are still in use today—purse seining for tuna is a multi-million dollar industry—the advent of the otter trawl after World War I probably contributed most to Georgia's commercial shrimpers.

Even the art of net repair is not commonly practiced by fishermen nowadays. "There's no incentive," Rivers said. "It's quicker to carry a spare net on a commercial boat and change nets if anything happens. Then the shrimper can get his old net repaired when he comes in to dock. The boat owners get a percentage of the boat's gross, which is earmarked for boat maintenance, engine upkeep and net repair. The captain and strikers wouldn't make anything extra if they took up net repair. If a captain owns his boat, he might, but otherwise, he'd save the work for someone else."

Rivers said he does know how to knit a cast net by hand. "It's a lot of work, and I haven't made one for years," he said. "The last one I made took ages. It was a beautiful net. First time I took it out casting, I forgot to tie the handline to the net swivel just like a landlubber."

He shook his head at the memory of his own carelessness. "I cast the net in about ten fathoms of water, and then stood there in my boat with tears in my eyes, watching my beautiful net sink straight to the bottom."

asis

Something providing relief from the usual: REFUGE.

By Bob Lee

Photography by Bob Busby

Of all the trials and tribulations which beset Africans brought in bondage to North America, there was one bright spot. Denied freedom, possessions and every basic human dignity by slave law, the slaves were allowed one outlet—religion, and with religion, the church.

More than a place of simple religious instructions, the Negro church quickly became central to its community. It was truly all things to all men; it had to be, it was the only thing a slave really had. It offered religion, assembly, social organization, and momentary release from a dreary existence. Here even people enslaved could express themselves, contribute to their community, learn, and most important, hope.

Today, the church becomes a necessary source of information when exploring the history of black people in America, for it was the only place they could legally record their actions. Many professions, business enterprises, and fraternal organizations among blacks owe their beginnings mainly to the progressive elements of the churches.

Early religious life of the American Negro was characterized by revival meetings. The deep religious feelings of the slaves released frenzied expressions at these meetings. When the devotee began to "feel" the spirit and was seized by this force, he became filled with animated joy, characterized by a fervor unlike anything the present-day generation has seen. Typically, it started as a low murmur or moan and gradually built up, progressing to a kind of mad abandonment with stamping, shrieking, and shouting. There was constant rushing to and fro, waving of the arms, crying, weeping, and the state of "blind vision," best described as a trance. There was the firm belief among the blacks that without this visible manifestation of religion, there could be no sincere communication with God. There were instances when the children would laugh and make light of what they thought was funny. When caught at this mockery, they received a swift and firm hand across the mouth or the head. Whereas "shouting" would seem grotesque and funny to the child, it was an important characteristic of Negro religion.

Forced to abandon his African heritage, the slave reluctantly accepted Christianity. It was later to become a tool for survival. Religion made it possible to assemble. For years religion was the only thing the slave could call his own. Methodists and Baptists of America owe much to the silent influence of the millions of black converts. This is true in America, and it is true in Georgia, where the Negro Baptist Church had its beginning. Much of the religion of the poor whites at the turn of the 20th century was an unacknowledged imitation of black thought and methods. Gospel hymns which swept through American churches consisted largely of debased imitations of Negro melodies, made by someone who caught the jingle but not the music, the body but not the soul of the Jubilee songs.

Please turn page

Jubilee songs are usually sung by a choir or a quartet with its own unique style. The lyrics express fulfillment of hope. There is jubilation!

Walk together children don't you get weary
There's a great camp meeting in the
Promised Land.

The music of Negro religion is characterized by its plaintive, rhythmic melody, accented with cadence. Originating in African forests, where its counterpart is heard today, it was adapted, changed and intensified by the tragic soul-life of the slave. And under the stress of slave law and whip, these songs became the one true expression of a people's sorrow, hope, and despair. James Weldon Johnson developed rhythmic folklore from these hymns and captured the souls of black folks in "Lift Every Voice and Sing."

The Negro preacher is a unique personality developed on American soil: a leader, politician, orator, "boss," the center of a group of men, once small, but today numbering in the thousands. Such a man came to Georgia in the first half of the eighteenth century. H name was George Leile.

Licensed as a probationer for two years, Leile ca ried the "word" to the slave quarters and the plant tions on the Savannah River. Sometime before t Revolution he was liberated to preach. During this tin Leile lived in Burke County with his master, Deac Henry Sharpe. The black preacher was befriended l a British officer when the heirs to Deacon Sharp estate attempted to reclaim him as a slave. When t Americans recaptured Savannah in 1782 and the Briti were forced to evacuate, the British officer suggest Leile follow him to the West Indies, warning that if remained, he would continue to have trouble with wh Americans. Leile and some 5,000 other blacks took t journey, and he later established the First Bapt Church in Jamaica. Before leaving Savannah, Leile ba tized several Negroes, including Andrew Bryan and wife Hannah.

This was long before the 1788 date given as t founding of the Negro church in Georgia. It is diffic

The church organ at Bryan Baptist Churc Built in 1856 by the H. Knauff Company Philadelphia, the org was purchased from t Independent Presbyt Church and installe in the early 1890s.

stained glass window in the First African Baptist urch commemorates Rev. Andrew Bryan (top) and . Andrew Marshall (bottom). Rev. Marshall was a tral figure in the move to a new church site in 1832. is resulted in the splitting of the congregation between First African and what was to become the Bryan ptist Church.

Born in 1881 in Franklin County, and one of three children, Rev. E. R. Norris is "the oldest rat in the barn." His ministerial career had the typical beginning.

His conversion into the Baptist ministry "was something I didn't want to be," he said. "God whipped me," he continues. "Put me down with pneumonia for ninety days; I surrendered to Him and said I'll do what He wants me to do. I preached to the sun and to the moon every day and night; preaching right on, just like the world was on fire. When the crisis passed, I knew this was God's calling me."

Preacher came from a line of "long-livers" and is officially retired, but is still active. He was recently recognized by the mayor as the oldest active minister in Toccoa.

"I'm just an old mud hole Baptist, and I'm glad to be a duck. God has blessed me for the state to open its heart and pass me out a little something from the taxes. I thank the Lord for that."

to accurately establish the correct order of Negro churches in America. The slaves were worshipping somewhere before 1788, and there may well have been loosely structured groups resembling a congregation, but they were not acknowledged as such until the white Association decided to recognize them.

In 1788 a white preacher from Kiokee Creek in Augusta constituted the First African Baptist Church at Brampton in Savannah and ordained Andrew Bryan as the first Negro pastor in America. Undoubtedly, Negroes had been allowed Christian worship services previously, as at Silver Bluff, South Carolina, from 1733-1750. Records show that a Reverend Samuel Thomas conducted a parish and gave religious instruction to some slaves. In addition, the plantation owner allowed David George, a slave, to conduct worship services and act as a preacher. These first halting steps led up to the organized Negro church.

During those days, the slaves were allowed "big church" only every three months, as a pass was required for them to be away from the plantation from sun-up to sun-down. It was not often that Negroes could acquire passes to get to church, as there were masters who did not follow religion very carefully themselves.

The First African Baptist Church, located at Franklin Square in Savannah. Built mostly by slaves working when their masters' allowed, the First African was the first congregation admitted to the Georgia Baptist Association in 1790.

Interior of First Africa Baptist shown at ri

In 1813 Andrew Marshall, Bryan's nephew, s ceeded his uncle as pastor of the First African Bap Church. In 1832 he led the split in the church, w the congregation moved from the original site to present site on Franklin Square, named after Benja Franklin, British agent for the colony. This new was purchased from the white Savannah Ba Church, whose congregation moved to Chipp Square.

Andrew Marshall was extremely popular. He said to be a powerful and exciting preacher. The wh after attending their own Sunday services, would come to hear him preach, and later some of them in him to preach in Philadelphia to raise money for a church. He went there, but probably because of hi years, the long trip and the climatic change, his h

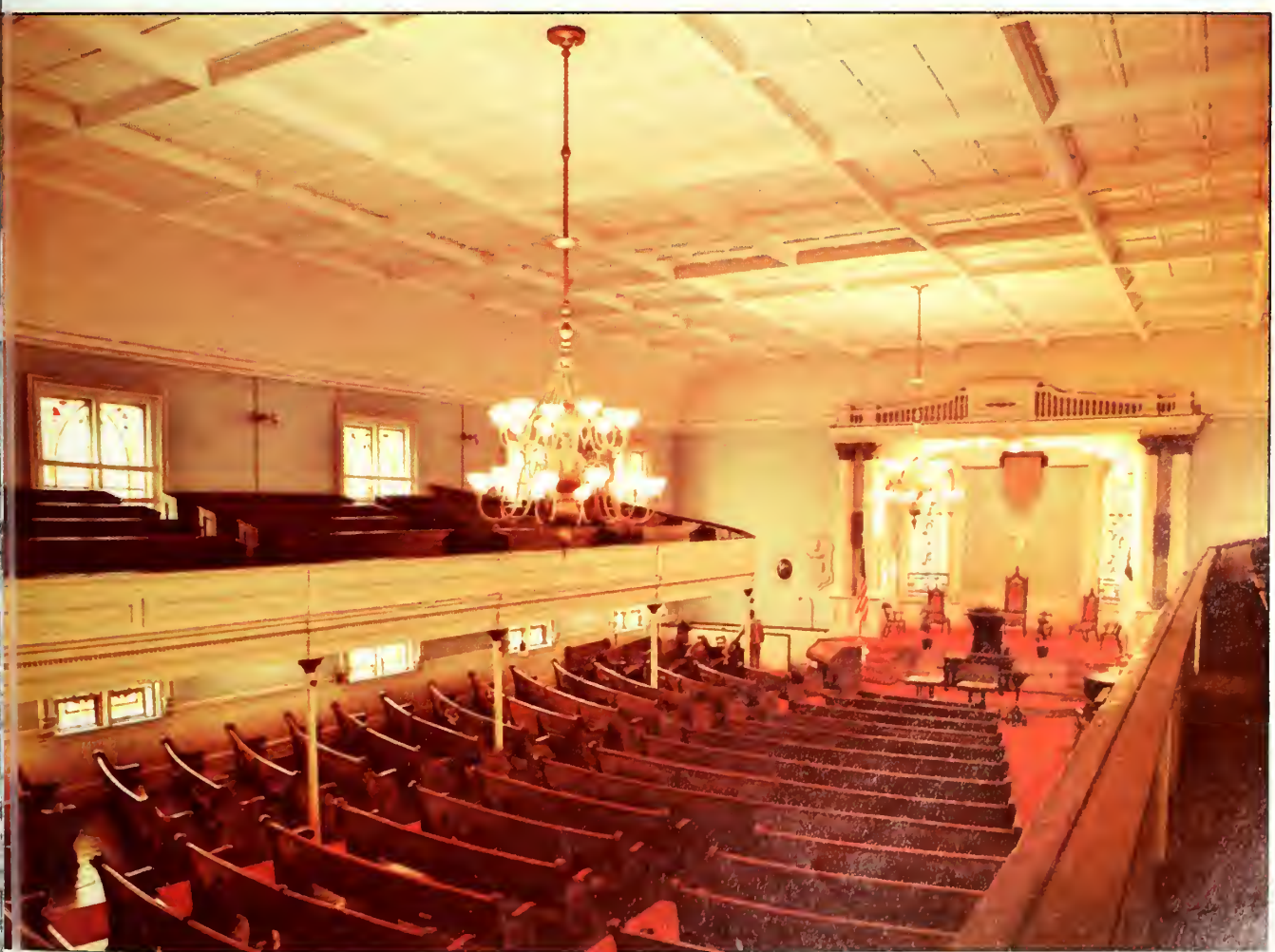
;an to decline. On his way back to Savannah, he died Richmond, Virginia.

The minority of the membership that remained at macraw, the original site of the church, made up the gregation for the newly-named Bryan Baptist urch. This small group was led by Jed Black and am.Johnson, a member of the deacon board. John- previously had fought with Pastor Marshall, and r the break, kept a minority of the congregation on original site. In May of 1790, the First African Bap- Church was admitted into the Georgia Baptist As- iation at its session at Brier Creek, Burke County. April 5, 1802, the church united with the Savannah otist Church and the Newington Church in forming Savannah Baptist Association. At the next statewide eting, the Association recorded the First African as first Negro church in the state. It recorded the an Church as the third. Since that time the decision reversed to the original site of Bryan Church. day, the membership of the Bryan church outnum- s that of the First African.

Each church is a distinct feature of Negro history, each can legitimately trace its beginning to 1788. Bryan church is on its original site; that spot of ground has supported a church since its first pastor Andrew Bryan bought the site in 1793. He built the first church there in 1794. It may be the oldest piece of real estate owned continuously by Negroes in North America.

Andrew Bryan was a slave when he did this, and he did it where Negroes were not allowed to own property outright; in fact, it was against the law. Bryan needed three upstanding white citizens from the community to serve as trustees for his purchase, but nonetheless, it was his. "It is a touching experience to look at the deed and realize that this remarkable, intelligent man, unlettered, consummated the sale with an 'X'," said W. W. Law, President of the Savannah NAACP. "However, he had been able, through his sacrifices, ingenuity, and thrift, to acquire the 15 pounds of sterling necessary to close the deal."

The First African Church is a tremendous awe-inspiring structure, completed in the early 1850s, long before freedom. Though some freemen were present, most who worked on the structure were slaves. What went into this building were their own energies and sacrifices, their hopes and dreams, their sincerity and determination.



The Bryan Baptist Church, on Bryan Street in Savannah, remains on the original site purchased by Rev. Andrew Bryan in 1793.

The men worked various jobs during the day, coming by lantern light and by candle light to work well into the dawn on the building. They did this work on their own time or for as long as the master would allow them to be away. The women brought food to the workers, carried water and gave up time with their families. Such an accomplishment, when slavery was the order of the day, spoke well for the leadership of the slaves and for the kind of community they made up.

It was not by chance that much of the Negro's early religious activity took place in Georgia. Chattel slavery was not legally practiced in Georgia until 1749. The founder of Georgia, James Oglethorpe, thought slavery against the law and gospel. So, many Negroes came to Savannah to avoid bondage and to gain employment. Following the Revolution, many more moved there as freemen or came with their masters.

There is an account in the letters published in the *Negro Journal,* written by Leile and Bryan, that an attempt was made to educate the slaves. And there was an actual accounting of members who could read and write. The Sunday school reportedly taught reading, writing, and letters. In Bryan's early correspondence with Northern whites and whites in England, he constantly asked for books and other learning materia It is clear the early Negro church was about thi other than "shouting" and scripture reading. It couraged self-help among the slaves.

Two of the three Negroes from Savannah who w elected to the Georgia House of Representatives in 1 were members of the Bryan membership. They w James Peters and James Sims. Sims wrote the book titled *The First Colored Baptist Church.* E. K. Love the First African membership responded with his bo *First African Baptist Church of North America.* books were written following the split in the congre tion and both are excellent resource materials. It at this point that the Negro church in America wo begin to reap fruits from long, laborious years of shap and molding the Afro-American into a productive p of Western culture.

Though the rule of the day was separation of chu and state, this was not so for the Negro. It could be. The church provided the teachings and tools wh made self-assertion for the slave possible. It provi a stage upon which to rehearse in preparation for op ing night. The opening night came three years a freedom.

My Boy and I

)ick Davis

)day my boy and I went hunting, he enjoyed a most sueeessful . It was a time of triumph for and a time of thanksgiving on)art for having been privileged are this important moment with It was also a time of refleetion)oth him and me.

hn has grown up in a different l than the one I knew as a boy young adult, where the woods rivers and streams, the trees, ife and plants were never far my doorway. Later, while ing forestry in eollege and then professional forester I was able :epen my understanding of the)f-doors in all its faeets. With basis of professional eonserva- work, I have been able to gain le elearer insight into the real onship between our God-given al resourees and our people and needs. So I believe I know had made possible this day of ng sport and eompanionship triumph for John and me.

)ough he has always loved the)f-doors and spent a few of his ger years in the mountains, has known more of the metro l of the 1960s and '70s. Cars, danees, roek-and-roll, proms, all and high sehool stardom in the sprints were the pertinent part of his environment. His has been the life most Amerieans now know —eities, masses of people, skyseraper-s, traffie jams, roekets soaring into outer spaee on TV, and people eompeting for living spaee. For John the outdoor world of woods and streams and wildlife was not as available as it was for me. Even so, he has known far more of the satisfaetions and joys of outdoor life than have millions of youngsters growing up in our ghettos and eonerete eanyons and sprawling suburbs.

But more important than my refleetions on this hunt were John's feelings, the lessons he was learning and the sense of values he was developing.

From the day we first started handling guns together, I have eonstantly tried to teaeh him gun safety and to remind him of the power—for sport or for tragedy—that he holds in his hand when earrying a rifle or shotgun. I have told him time and again that hunting is a valid and humane sport when done aeeording to laws and regulations. Habitat destruetion—not legal hunting—is the major faetor limiting wildlife populations.

It has probably sounded like a stuek reeord as I've talked about the urgent need to proteet and expand our wildlife habitat areas, to aeeelerate our efforts to save our wilderness, to eonserve and expand our woodlands through planned, seientifie forest management and utilization, and partieularly to edueate our people in the need for, and methods of, eonservation.

When he and I go fishing or hunting, I'm sure he has eome to expeet me to express disgust for the eareless and unlawful littering that mars the landseape.

All of this moved through my mind when we were in the woods today—and I somehow felt that John had similar thoughts.

And something else oeeurred to me—something John and I have talked about during our days in the outdoors. Wouldn't it be great if every Ameriean boy — especially those in the ghettos, the high-rises and the asphalt jungles of the eities —eould know the uplift of reereation in the fields and woods and on the lakes and rivers? Wouldn't that do mueh to help bring out the abundant good in the generations of young Amerieans? Wouldn't it give a fuller meaning to their lives, help bring them eloser to the Almighty and to a higher destiny? Fór many of us, the out-of-doors has always been a sanetuary along with the ehureh and the home. I hope I have imparted this inner feeling to John.

John and I went hunting today. Not a big thing, perhaps. But to us, a great thing.

1976 GEORGIA TIDE TABLES

This Tide Table for 1976 is furnished to you compliments of OUTDOORS IN GEORGIA for your use in coastal fishing and hunting.

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P.S. Please remember . . . be a good sportsman. Obey all regulations and don't litter!

Predicted tide times and heights are shown for the Georgia coast at the bar at the Savannah River entrance. You may compute the tide times for other points listed by subtracting or adding hours and minutes as indicated. A plus time indicates a later tide and a minus time an earlier tide. Daylight saving time is not used in this table. All daily time predictions are based on Eastern Standard Time meridian. Predicted times may be converted to daylight saving time by adding one hour to these data.

These data are from the **1976 Tide Tables for the East Coast of North and South America,** National Ocean Survey, U.S. Department of Commerce, Rockville, Md. 20852.

GEORGIA	DIFFERENCES Time High Water Hrs./Min.	Low Water Hrs./Min.
Savannah River		
Tybee Light	−0 08	−0 15
Port Wentworth	+0 33	+0 41
Tybee Creek and Wassaw Sound		
Tybee Creek entrance	−0 07	+0 02
Thunderbolt	+0 34	+0 09
Isle of Hope, Skidaway River	+0 52	+0 25
Ossabaw Sound		
Egg Island	+0 06	+0 07
Fort McAllister, Ogeechee River	+0 50	+1 13
Cane Patch Creek entrance	+0 57	+0 40
St. Catherines and Sapelo Sounds		
Walburg Creek entrance	+0 25	+0 20
Kilkenny Club, Kilkenny Creek	+0 31	+0 13
Sunbury, Medway River	+0 56	+0 42
Blackbeard Island	+0 20	+0 19
Mud R., at Old Teakettle Cr.	+0 47	+0 43

Doboy and Altamaha Sounds	DIFFERENCES Time High Water Hrs./Min.	Low Water Hrs./Min.
Blackbeard Cr., Blackbeard I.	+0 21	+0 44
Sapelo Island	0 00	+0 02
Darien, Darien River	+1 10	+1 12
Wolf Island	+0 06	+0 35
Champney I., S. Altamaha R.	+1-12	+2 30
St. Simons Sound		
St. Simons Sound bar	+0 01	−0 05
St. Simons Light	+0 24	+0 28
Troup Cr. entr., Mackay R.	+0 54	+0 49
Brunswick, East River	+0 55	+0 40
St. Andrew Sound		
Jekyll Point	+0 28	+0 28
Jointer Island, Jointer Creek	+1 02	+0 49
Dover Bluff, Dover Creek	+0 57	+0 49
Cumberland Wh., Cumb. R.	+0 40	+0 47
Cumberland Sound		
St. Marys Entr., north jetty	+0 15	+0 1
Crooked River entrance	+1 23	+1 1
Harritts Bluff, Crooked River	+2 09	+2 1
St. Marys, St. Marys River	+1 21	+1 1

SAVANNAH RIVER ENTRANCE, GA., 1976

TIMES AND HEIGHTS OF HIGH AND LOW WATERS

JANUARY						FEBRUARY						MARCH					
DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.
1	0122	-1.1	16	0057	-0.9	1	0238	-0.9	16	0216	-1.6	1	0214	-0.6	16	0157	-1.7
TH	0749	8.0	F	0707	7.6	SU	0853	7.2	M	0816	8.0	M	0823	7.0	TU	0757	8.1
	1404	-0.8		1333	-0.5		1507	-0.8		1441	-1.4		1436	-0.6		1416	-1.6
	1959	6.8		1928	6.6		2059	6.7		2042	7.7		2032	7.0		2025	8.4
2	0212	-1.0	17	0147	-1.1	2	0318	-0.7	17	0305	-1.7	2	0251	-0.6	17	0249	-1.7
F	0832	7.8	SA	0750	7.8	M	0925	6.9	TU	0902	7.9	TU	0856	6.8	W	0844	8.0
	1450	-0.8		1420	-0.8		1543	-0.7		1527	-1.5		1512	-0.6		1504	-1.6
	2043	6.8		2011	6.8		2134	6.6		2129	7.8		2105	7.0		2113	8.5
3	0259	-0.8	18	0234	-1.3	3	0355	-0.5	18	0355	-1.6	3	0329	-0.4	18	0339	-1.6
SA	0913	7.5	SU	0833	7.9	TU	1000	6.7	W	0950	7.7	W	0926	6.6	TH	0932	7.8
	1533	-0.7		1504	-1.0		1620	-0.5		1614	-1.5		1547	-0.4		1553	-1.5
	2125	6.6		2057	7.0		2211	6.5		2221	7.7		2137	6.9		2203	8.3
4	0341	-0.6	19	0321	-1.3	4	0434	-0.2	19	0445	-1.3	4	0403	-0.2	19	0431	-1.3
SU	0954	7.2	M	0919	7.8	W	1034	6.4	TH	1040	7.4	TH	0957	6.4	F	1024	7.4
	1613	-0.5		1549	-1.1		1657	-0.3		1703	-1.2		1621	-0.2		1643	-1.2
	2206	6.5		2147	7.1		2251	6.4		2317	7.5		2213	6.8		2259	7.9
5	0424	-0.3	20	0410	-1.2	5	0512	0.1	20	0539	-0.9	5	0440	0.0	20	0522	-0.9
M	1034	6.8	TU	1006	7.6	TH	1109	6.1	F	1135	6.9	F	1031	6.2	SA	1117	6.9
	1655	-0.3		1635	-1.1		1736	-0.1		1754	-0.9		1657	0.0		1736	-0.7
	2248	6.3		2237	7.1		2330	6.3					2251	6.7		2357	7.5
6	0504	0.0	21	0501	-1.0	6	0554	0.4	21	0015	7.2	6	0517	0.3	21	0620	-0.4
TU	1112	6.5	W	1058	7.3	F	1149	5.8	SA	0638	-0.5	SA	1109	5.9	SU	1215	6.5
	1736	-0.1		1724	-1.0		1818	0.1		1231	6.5		1737	0.2		1834	-0.2
	2330	6.2		2333	7.1					1854	-0.5		2333	6.5			
7	0549	0.4	22	0556	-0.7	7	0013	6.2	22	0116	6.9	7	0602	0.6	22	0100	7.1
W	1154	6.1	TH	1151	7.0	SA	0641	0.6	SU	0743	-0.1	SU	1151	5.7	M	0721	0.0
	1818	0.1		1817	-0.8		1231	5.6		1334	6.1		1821	0.4		1319	6.2
							1907	0.3		1959	-0.2					1939	0.2
8	0015	6.1	23	0031	7.0	8	0103	6.1	23	0224	6.7	8	0021	6.4	23	0204	6.7
TH	0636	0.6	F	0655	-0.4	SU	0735	0.8	M	0850	0.1	M	0651	0.8	TU	0827	0.3
	1236	5.9		1250	6.6		1321	5.4		1441	5.9		1242	5.6		1425	6.0
	1906	0.3		1916	-0.6		2001	0.4		2108	-0.1		1916	0.6		2047	0.3
9	0102	6.0	24	0135	6.9	9	0155	6.1	24	0337	6.6	9	0114	6.3	24	0314	6.5
F	0729	0.8	SA	0802	-0.1	M	0836	0.9	TU	0953	0.1	TU	0753	0.9	W	0930	0.3
	1321	5.7		1350	6.2		1417	5.3		1553	5.8		1337	5.5		1535	6.0
	1956	0.4		2019	-0.5		2058	0.3		2209	-0.2		2019	0.5		2151	0.3
10	0151	6.0	25	0242	6.8	10	0255	6.2	25	0446	6.7	10	0212	6.4	25	0420	6.5
SA	0827	0.9	SU	0908	-0.1	TU	0937	0.7	W	1051	0.0	W	0858	0.8	TH	1026	0.2
	1411	5.5		1455	6.0		1517	5.4		1700	6.0		1440	5.6		1639	6.2
	2050	0.3		2124	-0.5		2156	0.1		2308	-0.3		2122	0.3		2249	0.2
11	0246	6.1	26	0353	6.8	11	0356	6.4	26	0545	6.9	11	0317	6.5	26	0521	6.6
SU	0924	0.8	M	1012	-0.1	W	1033	0.4	TH	1145	-0.2	TH	0959	0.5	F	1116	0.0
	1508	5.4		1607	5.9		1622	5.6		1758	6.3		1549	5.9		1734	6.5
	2143	0.2		2226	-0.6		2251	-0.3					2221	-0.1		2339	0.0
12	0343	6.3	27	0502	7.0	12	0459	6.7	27	0000	-0.5	12	0425	6.8	27	0606	6.7
M	1017	0.6	TU	1110	-0.3	TH	1126	0.0	F	0635	7.0	F	1054	0.0	SA	1203	-0.1
	1605	5.5		1715	6.1		1723	6.0		1232	-0.4		1657	6.4		1819	6.8
	2233	0.0		2323	-0.7		2345	-0.7		1844	6.6		2318	-0.6			
13	0441	6.5	28	0600	7.2	13	0555	7.2	28	0048	-0.6	13	0525	7.2	28	0025	-0.2
TU	1107	0.4	W	1206	-0.5	F	1218	-0.4	SA	0715	7.1	SA	1148	-0.5	SU	0648	6.8
	1705	5.7		1811	6.3		1819	6.5		1317	-0.5		1755	7.1		1244	-0.3
	2322	-0.3								1923	6.8					1856	7.1
14	0534	6.9	29	0016	-0.8	14	0036	-1.1	29	0132	-0.7	14	0012	-1.0	29	0107	-0.3
W	1158	0.1	TH	0651	7.4	SA	0645	7.6	SU	0751	7.1	SU	0619	7.6	M	0723	6.9
	1756	5.9		1256	-0.6		1307	-0.8		1358	-0.6		1237	-0.9		1325	-0.4
				1901	6.5		1908	7.0		1958	6.9		1848	7.7		1930	7.2
15	0011	-0.6	30	0106	-0.9	15	0127	-1.4				15	0106	-1.4	30	0147	-0.3
TH	0624	7.3	F	0734	7.4	SU	0731	7.9				M	0707	8.0	TU	0755	6.8
	1247	-0.2		1343	-0.8		1355	-1.2					1328	-1.3		1403	-0.4
	1843	6.3		1943	6.6		1954	7.4					1936	8.1		2002	7.3
			31	0153	-0.9										31	0226	-0.3
			SA	0815	7.4										W	0825	6.7
				1427	-0.8											1439	-0.3
				2023	6.7											2033	7.3

TIME MERIDIAN 75° W. 0000 IS MIDNIGHT. 1200 IS NOON.
HEIGHTS ARE RECKONED FROM THE DATUM OF SOUNDINGS ON CHARTS OF THE LOCALITY WHICH IS MEAN LOW WATER.

SAVANNAH RIVER ENTRANCE, GA., 1976

TIMES AND HEIGHTS OF HIGH AND LOW WATERS

APRIL						MAY						JUNE					
DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.
1 TH	0302 0855 1514 2105	-0.2 6.6 -0.2 7.3	16 F	0323 0915 1533 2147	-1.5 7.7 -1.3 8.6	1 SA	0313 0858 1521 2115	0.1 6.3 0.1 7.5	16 SU	0357 0950 1605 2221	-1.1 7.1 -0.8 8.1	1 TU	0410 0955 1619 2213	0.1 6.2 0.1 7.4	16 W	0512 1114 1722 2337	-0.5 6.5 0.1 6.9
2 F	0337 0926 1549 2140	-0.1 6.4 0.0 7.2	17 SA	0414 1006 1622 2241	-1.2 7.3 -0.9 8.1	2 SU	0350 0933 1557 2152	0.2 6.2 0.2 7.3	17 M	0448 1043 1656 2316	-0.7 6.8 -0.3 7.6	2 W	0451 1042 1704 2303	0.1 6.3 0.2 7.3	17 TH	0559 1204 1813	-0.2 6.4 0.5
3 SA	0413 0958 1624 2217	0.1 6.2 0.2 7.1	18 SU	0504 1101 1717 2338	-0.8 6.9 -0.5 7.6	3 M	0429 1011 1638 2235	0.3 6.1 0.3 7.2	18 TU	0538 1141 1750	-0.4 6.5 0.1	3 TH	0536 1136 1759 2355	0.1 6.4 0.3 7.1	18 F	0026 0647 1254 1905	6.5 0.1 6.3 0.8
4 SU	0450 1035 1703 2259	0.4 6.0 0.4 6.9	19 M	0600 1200 1813	-0.3 6.5 0.0	4 TU	0511 1058 1721 2324	0.4 6.0 0.5 7.1	19 W	0012 0630 1236 1847	7.1 0.0 6.3 0.5	4 F	0627 1234 1858	0.0 6.6 0.4	19 SA	0113 0736 1342 2003	6.2 0.2 6.3 1.0
5 M	0531 1120 1749 2349	0.6 5.9 0.5 6.8	20 TU	0038 0700 1300 1916	7.1 0.1 6.3 0.5	5 W	0557 1149 1815	0.5 6.1 0.6	20 TH	0106 0726 1332 1948	6.6 0.2 6.2 0.8	5 SA	0050 0724 1334 2005	7.0 -0.1 6.8 0.3	20 SU	0201 0827 1433 2059	5.9 0.3 6.3 1.0
6 TU	0618 1212 1841	0.8 5.8 0.7	21 W	0140 0800 1404 2021	6.7 0.3 6.1 0.7	6 TH	0015 0650 1249 1919	7.0 0.5 6.2 0.6	21 F	0158 0820 1428 2047	6.3 0.3 6.2 0.9	6 SU	0150 0825 1437 2109	6.8 -0.3 7.1 0.1	21 M	0251 0917 1523 2152	5.8 0.3 6.4 0.9
7 W	0041 0718 1308 1945	6.7 0.8 5.9 0.7	22 TH	0241 0900 1505 2123	6.5 0.4 6.2 0.7	7 F	0113 0752 1352 2027	6.9 0.4 6.5 0.5	22 SA	0254 0914 1521 2143	6.1 0.3 6.4 0.8	7 M	0252 0926 1543 2212	6.8 -0.5 7.5 -0.2	22 TU	0345 1004 1617 2242	5.7 0.2 6.6 0.8
8 TH	0140 0822 1413 2052	6.7 0.7 6.1 0.5	23 F	0342 0953 1605 2219	6.3 0.3 6.3 0.6	8 SA	0214 0854 1458 2132	6.9 0.1 6.8 0.1	23 SU	0349 1001 1617 2233	6.0 0.2 6.6 0.7	8 TU	0358 1023 1649 2311	6.8 -0.8 7.9 -0.5	23 W	0438 1052 1707 2329	5.7 0.1 6.9 0.6
9 F	0242 0924 1520 2156	6.7 0.4 6.4 0.1	24 SA	0441 1041 1700 2308	6.3 0.2 6.6 0.4	9 SU	0320 0953 1604 2233	6.9 -0.3 7.3 -0.3	24 M	0441 1046 1703 2320	6.0 0.1 6.8 0.5	9 W	0502 1120 1748	6.9 -1.0 8.3	24 TH	0529 1136 1752	5.8 0.0 7.2
10 SA	0351 1023 1630 2255	6.9 -0.1 7.0 -0.4	25 SU	0530 1126 1745 2355	6.4 0.0 6.9 0.2	10 M	0425 1049 1707 2330	7.1 -0.7 7.9 -0.7	25 TU	0529 1130 1747	6.1 0.0 7.1	10 TH	0008 0603 1216 1845	-0.8 7.0 -1.2 8.5	25 F	0016 0614 1222 1835	0.4 5.9 -0.1 7.4
11 SU	0454 1116 1730 2351	7.2 -0.6 7.6 -0.9	26 M	0612 1208 1824	6.5 -0.1 7.2	11 TU	0526 1142 1806	7.3 -1.1 8.4	26 W	0004 0611 1211 1827	0.3 6.1 -0.1 7.3	11 F	0104 0659 1309 1936	-1.0 7.1 -1.2 8.6	26 SA	0101 0656 1307 1914	0.2 6.1 -0.2 7.6
12 M	0552 1209 1825	7.6 -1.0 8.2	27 TU	0037 0648 1248 1900	0.1 6.5 -0.2 7.4	12 W	0025 0622 1237 1859	-1.0 7.5 -1.3 8.8	27 TH	0048 0648 1253 1904	0.2 6.2 -0.1 7.5	12 SA	0157 0751 1404 2025	-1.1 7.2 -1.2 8.5	27 SU	0144 0734 1349 1953	0.0 6.2 -0.3 7.7
13 TU	0046 0645 1301 1917	-1.3 7.9 -1.4 8.7	28 W	0118 0722 1328 1933	0.0 6.6 -0.2 7.5	13 TH	0120 0715 1329 1950	-1.3 7.6 -1.4 8.9	28 F	0130 0725 1334 1939	0.1 6.2 -0.1 7.6	13 SU	0250 0842 1455 2114	-1.1 7.1 -1.0 8.3	28 M	0227 0813 1434 2031	-0.1 6.3 -0.3 7.8
14 W	0139 0736 1352 2006	-1.5 8.0 -1.5 8.9	29 TH	0159 0754 1406 2006	-0.1 6.5 -0.2 7.6	14 F	0214 0806 1422 2039	-1.3 7.6 -1.3 8.8	29 SA	0211 0759 1416 2015	0.1 6.2 -0.1 7.6	14 M	0339 0932 1546 2203	-1.0 6.9 -0.7 7.9	29 TU	0307 0854 1516 2113	-0.2 6.5 -0.3 7.7
15 TH	0231 0825 1442 2055	-1.6 7.9 -1.5 8.8	30 F	0237 0826 1443 2039	0.0 6.4 -0.1 7.5	15 SA	0307 0857 1514 2130	-1.3 7.4 -1.1 8.5	30 SU	0250 0836 1455 2051	0.0 6.2 -0.1 7.6	15 TU	0426 1023 1634 2251	-0.7 6.7 -0.3 7.4	30 W	0349 0939 1602 2157	-0.3 6.6 -0.3 7.6
									31 M	0329 0913 1536 2131	0.0 6.2 0.0 7.5						

TIMES ARE BASED ON THE MERIDIAN 75° W. 0000 IS MIDNIGHT. 1200 IS NOON.
HEIGHTS ARE RECKONED FROM THE DATUM OF SOUNDINGS ON CHARTS OF THE LOCALITY WHICH IS MEAN LOW WATER.

SAVANNAH RIVER ENTRANCE, GA., 1976

TIMES AND HEIGHTS OF HIGH AND LOW WATERS

JULY						AUGUST						SEPTEMBER					
DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.
1 TH	0432	-0.4	16 F	0521	-0.2	1 SU	0544	-0.6	16 M	0605	0.5	1 W	0058	6.8	16 TH	0023	6.1
	1027	6.7		1125	6.6		1159	7.5		1205	6.7		0724	0.2		0700	1.2
	1648	-0.2		1736	0.5		1823	0.1		1828	1.3		1350	7.6		1258	6.9
	2244	7.5		2340	6.5								2017	0.7		1937	1.8
2 F	0516	-0.4	17 SA	0605	0.1	2 M	0013	7.1	17 TU	0018	6.1	2 TH	0203	6.6	17 F	0119	6.1
	1121	6.8		1207	6.5		0639	-0.4		0650	0.8		0832	0.4		0800	1.3
	1741	0.0		1823	0.8		1300	7.4		1252	6.7		1500	7.5		1357	6.9
	2336	7.2					1927	0.3		1921	1.5		2124	0.7		2042	1.7
3 SA	0605	-0.4	18 SU	0023	6.2	3 TU	0112	6.7	18 W	0103	5.9	3 F	0316	6.5	18 SA	0220	6.1
	1217	7.0		0649	0.3		0741	-0.2		0743	0.9		0938	0.4		0901	1.1
	1839	0.2		1252	6.4		1403	7.4		1343	6.6		1612	7.5		1458	7.1
				1915	1.1		2034	0.4		2022	1.5		2225	0.6		2140	1.4
4 SU	0029	7.0	19 M	0107	5.9	4 W	0215	6.5	19 TH	0159	5.8	4 SA	0426	6.6	19 SU	0327	6.4
	0702	-0.4		0739	0.4		0846	-0.1		0840	0.9		1038	0.2		1000	0.8
	1316	7.1		1341	6.4		1511	7.4		1439	6.7		1715	7.7		1601	7.4
	1944	0.2		2011	1.2		2140	0.4		2122	1.4		2319	0.3		2234	0.9
5 M	0128	6.8	20 TU	0156	5.7	5 TH	0324	6.4	20 F	0258	5.8	5 SU	0529	6.9	20 M	0430	6.8
	0801	-0.4		0830	0.5		0951	-0.2		0937	0.7		1134	0.1		1054	0.4
	1418	7.3		1432	6.4		1623	7.6		1539	6.9		1808	7.9		1700	7.7
	2051	0.2		2108	1.2		2241	0.2		2217	1.2					2324	0.4
6 TU	0230	6.6	21 W	0249	5.6	6 F	0436	6.5	21 SA	0404	6.0	6 M	0009	0.1	21 TU	0529	7.4
	0903	-0.5		0924	0.5		1050	-0.3		1030	0.5		0620	7.3		1147	-0.1
	1527	7.5		1527	6.6		1726	7.8		1639	7.2		1224	0.0		1752	8.1
	2155	0.0		2201	1.1		2337	0.0		2310	0.8		1853	8.0			
7 W	0338	6.5	22 TH	0346	5.6	7 SA	0540	6.7	22 SU	0505	6.3	7 TU	0054	-0.1	22 W	0012	-0.1
	1005	-0.6		1013	0.3		1147	-0.4		1123	0.2		0705	7.5		0621	8.0
	1633	7.7		1623	6.8		1823	8.0		1732	7.6		1311	-0.1		1238	-0.4
	2255	-0.2		2254	0.9					2358	0.4		1931	7.9		1840	8.5
8 TH	0446	6.5	23 F	0446	5.7	8 SU	0030	-0.3	23 M	0558	6.8	8 W	0138	-0.1	23 TH	0101	-0.5
	1103	-0.8		1102	0.2		0635	7.0		1212	-0.2		0742	7.7		0710	8.5
	1737	8.0		1715	7.1		1240	-0.5		1822	8.0		1354	0.0		1329	-0.7
	2352	-0.4		2342	0.6		1910	8.1					2007	7.8		1928	8.7
9 F	0550	6.7	24 SA	0539	6.0	9 M	0120	-0.4	24 TU	0045	0.0	9 TH	0217	-0.2	24 F	0149	-0.8
	1200	-0.9		1151	0.0		0723	7.2		0646	7.3		0817	7.7		0757	8.9
	1832	8.2		1805	7.4		1331	-0.5		1301	-0.5		1435	0.1		1420	-0.8
							1954	8.1		1907	8.3		2040	7.6		2014	8.7
10 SA	0048	-0.6	25 SU	0030	0.3	10 TU	0206	-0.5	25 W	0130	-0.3	10 F	0257	-0.1	25 SA	0236	-0.9
	0646	6.9		0627	6.3		0806	7.3		0730	7.7		0853	7.7		0844	9.0
	1255	-0.9		1237	-0.2		1417	-0.4		1350	-0.7		1513	0.3		1510	-0.8
	1924	8.3		1849	7.7		2033	7.9		1950	8.5		2112	7.4		2101	8.5
11 SU	0140	-0.8	26 M	0115	0.0	11 W	0249	-0.5	26 TH	0217	-0.6	11 SA	0331	0.1	26 SU	0324	-0.9
	0738	7.0		0710	6.6		0846	7.3		0817	8.1		0926	7.6		0933	9.0
	1348	-0.9		1325	-0.4		1501	-0.2		1440	-0.8		1550	0.5		1600	-0.6
	2011	8.2		1932	8.0		2110	7.6		2033	8.5		2144	7.1		2150	8.1
12 M	0230	-0.8	27 TU	0201	-0.2	12 TH	0329	-0.4	27 F	0301	-0.8	12 SU	0408	0.3	27 M	0414	-0.7
	0826	7.0		0752	6.9		0924	7.2		0903	8.3		1000	7.4		1027	8.7
	1438	-0.8		1411	-0.6		1541	0.0		1528	-0.7		1627	0.8		1653	-0.2
	2054	8.0		2012	8.1		2147	7.3		2121	8.3		2216	6.8		2245	7.7
13 TU	0316	-0.8	28 W	0243	-0.5	13 F	0406	-0.2	28 SA	0347	-0.9	13 M	0445	0.6	28 TU	0504	-0.3
	0912	7.0		0837	7.1		1003	7.1		0952	8.3		1040	7.3		1125	8.3
	1525	-0.5		1500	-0.6		1621	0.3		1618	-0.5		1706	1.1		1749	0.2
	2138	7.7		2055	8.1		2219	7.0		2208	8.0		2251	6.6		2343	7.3
14 W	0358	-0.7	29 TH	0326	-0.6	14 SA	0445	0.0	29 SU	0434	-0.7	14 TU	0524	0.8	29 W	0602	0.2
	0954	6.9		0921	7.3		1042	7.0		1045	8.2		1122	7.1		1228	8.0
	1608	-0.2		1546	-0.6		1701	0.6		1709	-0.2		1749	1.4		1852	0.6
	2219	7.3		2139	8.0		2256	6.7		2259	7.6		2336	6.3			
15 TH	0440	-0.5	30 F	0410	-0.7	15 SU	0522	0.3	30 M	0525	-0.5	15 W	0607	1.1	30 TH	0046	6.9
	1040	6.7		1010	7.4		1122	6.8		1143	8.0		1209	7.0		0705	0.6
	1653	0.1		1635	-0.4		1741	1.0		1807	0.2		1841	1.6		1335	7.6
	2301	6.9		2226	7.7		2336	6.4		2357	7.2					1958	0.9
			31 SA	0456	-0.7				31 TU	0620	-0.1						
				1103	7.5					1244	7.8						
				1725	-0.2					1910	0.5						
				2317	7.4												

TIME MERIDIAN 75° W. 0000 IS MIONIGHT. 1200 IS NOON.
HEIGHTS ARE RECKONED FROM THE DATUM OF SOUNDINGS ON CHARTS OF THE LOCALITY WHICH IS MEAN LOW WATER.

SAVANNAH RIVER ENTRANCE, GA., 1976

TIMES AND HEIGHTS OF HIGH AND LOW WATERS

	OCTOBER					NOVEMBER					DECEMBER				
DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.	DAY	TIME H.M.	HT. FT.
1 F	0152	6.7	16 SA	0046	6.3	1 M	0345	6.8	16 TU	0224	6.9	1 W	0401	6.6	16 TH	0304	7.2
	0815	0.8		0721	1.3		0957	0.9		0901	0.6		1015	0.8		0938	0.0
	1445	7.4		1321	7.1		1620	7.0		1447	7.1		1628	6.2		1522	6.7
	2103	0.9		2001	1.5		2223	0.5		2124	0.3		2233	0.3		2153	-0.6
2 SA	0304	6.7	17 SU	0149	6.4	2 TU	0441	7.1	17 W	0330	7.3	2 TH	0450	6.8	17 F	0412	7.5
	0922	0.8		0827	1.2		1049	0.8		1002	0.2		1103	0.7		1039	-0.3
	1552	7.4		1421	7.2		1713	7.0		1551	7.3		1716	6.3		1628	6.8
	2201	0.7		2103	1.2		2309	0.4		2220	-0.2		2316	0.1		2252	-0.9
3 SU	0410	6.8	18 M	0253	6.7	3 W	0530	7.3	18 TH	0434	7.8	3 F	0535	7.1	18 SA	0516	8.0
	1022	0.7		0931	0.9		1137	0.6		1100	-0.2		1149	0.5		1137	-0.7
	1652	7.5		1521	7.4		1755	7.1		1653	7.5		1800	6.4		1731	7.0
	2255	0.5		2159	0.7		2353	0.2		2315	-0.7					2347	-1.2
4 M	0510	7.1	19 TU	0359	7.2	4 TH	0611	7.6	19 F	0534	8.4	4 SA	0000	0.0	19 SU	0616	8.3
	1115	0.5		1028	0.4		1220	0.5		1155	-0.6		0616	7.3		1234	-0.9
	1743	7.6		1623	7.7		1835	7.1		1750	7.8		1232	0.4		1830	7.2
	2342	0.3		2252	0.2								1837	6.4			
5 TU	0559	7.5	20 W	0503	7.8	5 F	0034	0.1	20 SA	0008	-1.0	5 SU	0043	-0.1	20 M	0044	-1.4
	1202	0.4		1123	-0.1		0646	7.8		0630	8.8		0653	7.4		0709	8.6
	1828	7.7		1722	8.0		1302	0.4		1251	-0.9		1315	0.3		1328	-1.1
				2342	-0.3		1909	7.1		1845	7.9		1913	6.4		1922	7.4
6 W	0025	0.2	21 TH	0555	8.4	6 SA	0113	0.1	21 SU	0101	-1.2	6 M	0122	-0.1	21 TU	0138	-1.5
	0641	7.7		1216	-0.5		0722	7.9		0722	9.1		0730	7.5		0800	8.6
	1248	0.3		1814	8.3		1341	0.4		1344	-1.0		1355	0.2		1422	-1.2
	1906	7.7					1941	7.0		1936	8.0		1948	6.4		2015	7.4
7 TH	0106	0.1	22 F	0032	-0.7	7 SU	0152	0.1	22 M	0155	-1.3	7 TU	0203	-0.1	22 W	0231	-1.4
	0715	7.9		0648	9.0		0754	7.9		0812	9.1		0805	7.6		0850	8.4
	1329	0.3		1309	-0.8		1420	0.4		1437	-1.0		1435	0.2		1512	-1.2
	1938	7.6		1904	8.5		2013	6.9		2028	7.9		2021	6.4		2106	7.3
8 F	0146	0.1	23 SA	0122	-1.0	8 M	0229	0.2	23 TU	0247	-1.2	8 W	0242	-0.1	23 TH	0322	-1.2
	0750	8.0		0738	9.3		0827	7.8		0904	8.9		0840	7.5		0940	8.1
	1409	0.3		1401	-0.9		1458	0.5		1530	-0.9		1512	0.2		1602	-1.0
	2010	7.4		1954	8.5		2042	6.7		2119	7.6		2054	6.3		2155	7.1
9 SA	0223	0.1	24 SU	0213	-1.1	9 TU	0306	0.3	24 W	0338	-0.9	9 TH	0321	0.0	24 F	0413	-0.9
	0822	8.0		0827	9.4		0901	7.7		0956	8.6		0917	7.5		1029	7.7
	1446	0.5		1454	-0.9		1534	0.7		1620	-0.7		1551	0.3		1648	-0.8
	2040	7.3		2042	8.3		2117	6.6		2214	7.3		2133	6.3		2248	6.8
10 SU	0300	0.3	25 M	0303	-1.0	10 W	0343	0.5	25 TH	0432	-0.5	10 F	0400	0.1	25 SA	0459	-0.5
	0854	7.9		0917	9.2		0938	7.6		1051	8.1		0955	7.3		1118	7.2
	1523	0.6		1546	-0.7		1614	0.8		1712	-0.3		1631	0.3		1736	-0.5
	2111	7.0		2134	8.0		2152	6.4		2312	7.0		2217	6.3		2339	6.6
11 M	0335	0.5	26 TU	0355	-0.7	11 TH	0423	0.6	26 F	0524	-0.1	11 SA	0444	0.2	26 SU	0551	0.0
	0927	7.7		1011	8.8		1018	7.4		1148	7.6		1039	7.2		1209	6.7
	1559	0.9		1638	-0.3		1651	1.0		1806	0.0		1712	0.3		1823	-0.1
	2144	6.8		2229	7.6		2235	6.3					2304	6.3			
12 TU	0411	0.7	27 W	0448	-0.3	12 F	0504	0.8	27 SA	0010	6.7	12 SU	0531	0.3	27 M	0031	6.4
	1003	7.6		1109	8.4		1101	7.3		0621	0.4		1127	7.1		0644	0.4
	1635	1.1		1733	0.1		1736	1.1		1243	7.1		1758	0.3		1255	6.3
	2221	6.6		2328	7.2		2325	6.3		1902	0.3		2358	6.5		1916	0.1
13 W	0448	0.9	28 TH	0544	0.2	13 SA	0553	0.9	28 SU	0108	6.5	13 M	0626	0.4	28 TU	0121	6.2
	1045	7.4		1210	7.9		1151	7.2		0723	0.7		1221	6.9		0741	0.7
	1717	1.4		1831	0.5		1826	1.1		1342	6.7		1851	0.2		1345	5.9
	2302	6.4								1959	0.4					2009	0.2
14 TH	0530	1.1	29 F	0031	6.9	14 SU	0021	6.4	29 M	0206	6.5	14 TU	0055	6.6	29 W	0214	6.1
	1130	7.2		0647	0.6		0651	1.0		0825	0.9		0727	0.4		0837	0.8
	1803	1.5		1313	7.5		1247	7.1		1438	6.5		1317	6.8		1437	5.7
	2349	6.3		1936	0.7		1924	1.0		2053	0.5		1951	0.0		2100	0.3
15 F	0621	1.3	30 SA	0136	6.7	15 M	0121	6.5	30 TU	0304	6.5	15 W	0159	6.9	30 TH	0309	6.1
	1225	7.1		0754	0.9		0756	0.9		0924	0.9		0834	0.3		0936	0.8
	1858	1.6		1418	7.2		1347	7.1		1533	6.3		1417	6.7		1532	5.6
				2036	0.8		2024	0.7		2145	0.4		2053	-0.2		2151	0.2
			31 SU	0241	6.7										31 F	0402	6.3
				0859	1.0											1025	0.7
				1520	7.0											1628	5.6
				2132	0.7											2239	0.1

TIME MERIDIAN 75° W. 0000 IS MIDNIGHT. 1200 IS NOON.
HEIGHTS ARE RECKONED FROM THE DATUM OF SOUNDINGS ON CHARTS OF THE LOCALITY WHICH IS MEAN LOW WATER.

Sportsman's Calendar

SMALL GAME

)—No closed season, statewide; No imit. Electronic calls may not be used.

CAT—Sept. 15-Feb. 28, statewide; bag limit. Electronic calls may not be

USE—Oct. 18-Feb. 28 statewide; bag 3 daily.

SSUM—Oct. 18-Feb. 28, in Game s I & 1A, no bag limit. No closed n in Game Zones II, III, IV, V, /I, no bag limit.

IL—Nov. 20-Feb. 28, statewide; daily init 12, (Possession 36)

BIT—Nov. 20-Feb. 28, statewide; bag limit 10.

COON—Oct. 18-Feb. 28 in Game s I and 1A; daily bag limit 1. No d season in Game Zones II, III, and VI, no bag limit.

IRREL—Sept. 15-Feb. 28 in Game s I and 1A; bag limit 10. Oct. 15-. 28 in Game Zones II, III, IV, V /I, bag limit 10.

WATERFOWL SEASON

KS: Nov. 19 through Dec. 3, 1975
. 17, 1975, through Jan. 20, 1976
ting hours begin at noon, Nov. 19 Dec. 17, respectively. All other days g the season — ½ hour before sun- sunset.
ly; 10 in possession
l ducks — 2 daily, 4 in possession
ducks — 1 daily, 2 in possession
n closed on Canvasbacks, Redheads anada Geese

EXTRA SCAUP LIMIT: In addition to regular duck bag, an extra 2 daily and 4 in possession may be taken throughout the season east (seaward) of Intracoastal Waterway in Chatham, Bryan, Liberty, McIntosh, Glynn and Camden Counties.

EXTRA BLUE-WINGED TEAL LIMIT: For nine (9) consecutive days, Nov. 19 through Nov. 27, 1975, 2 daily and 4 in possession in addition to the regular duck bag.

COOTS: Nov. 19 through Dec. 3, 1975
Dec. 17, 1975, through Jan. 20, 1976
15 daily; 30 in possession

GALLINULES: Nov. 19 through Jan. 20, 1976
15 daily; 30 in possession

MERGANSERS: Nov. 19 through Dec. 3, 1975
Dec. 17 through Jan. 20, 1976
5 daily; 10 in possession
Except Hooded Merganser — 1 daily; 2 in possession

SEA DUCKS: (Scoters, Eiders, Old Squaws)
Nov. 19 through Jan. 20, 1976
7 daily; 14 in possession
Singly or in the aggregate

SNOW GEESE: (Including Blue Geese)
Dec. 22 through Jan. 20, 1976
2 daily; 4 in possession

ATLANTIC BRANT: Dec. 22 through Jan. 20, 1976
4 daily; 8 in possession
Shooting hours on Nov. 19 and Dec. 17, 1975, for all ducks, coots, mergansers and gallinules shall be from 12 noon until sunset, local time. All other shooting hours shall be from ½ hour before sunrise to sunset daily.

MIGRATORY BIRDS

SNIPE: Nov. 20 through Jan. 23, 1976
8 daily; 16 in possession

WOODCOCK: Nov. 20 - Jan. 23, 1976
5 daily; 10 in possession

Letters to the Editor

I want to register my concern too, that this fine magazine not continue in its swing toward being another "Scenic South." The editors appear to have said: "Let's change it the way we want it." Photography and one page, frameable pictures are appreciated!

Robert M. Cash

With reference to Crumbley's letter in the November issue, I am neither a hunter nor a fisherman, and yet I subscribe to your magazine and like it because it has other articles than those on hunting and fishing (which I never read). I like it because it has other articles on the outdoors, which makes it true to its name. When it should have nothing but hunting and fishing in it, then I cease to subscribe.

E. M. Coulter
Athens, GA

I have just completed reading the November issue of *Outdoors in Georgia* and compliment your staff on one of your finest issues in recent months. It reminds me of the old days when *Outdoors in Georgia* was full of articles of interest to the Georgia outdoor sportsman.

I became a subscriber of *Outdoors in Georgia* years ago and miss the old magazine. I always thought it was one of the finest magazines available. I wish you would devote more pages on the old subjects.

I agree with Mr. Charles L. Crummly whose letter you published in the November 1975 issue when he said, "You have changed an informative sportsman's publication to a "Scenic South" type booklet for Georgia." I have never met Mr. Crumbly but I agree with his statement very much.

I am not criticizing "Scenic South" magazine. I believe it is a fine magazine. I enjoyed reading it for many years. I subscribed to it to read of historical and interesting places in the south (including Georgia). I subscribed to *Outdoors in Georgia* for a different reason. I truly wish you could publish more issues containing those subjects that caused many of your subscribers to originally subscribe to *Outdoors in Georgia.*

Again I compliment you on the November issue which was an improvement over other recent issues. I compliment Bob Busby for his photo of the whitetail buck on page 3. I hope to see more photos of this type in future issues.

I am a bow hunter and would like to see more articles on bow hunting included in OIG. I think a story on Blackbeard Island—the arrival, transportation, stands, rules, and hills would make an interesting story for future issues. Also the Ogeechee River is a fine river in Georgia. I would like to see an article on it in some future issue.

J. D. Fleming
Swainsboro, GA

I would like to express my views on the matter of hunting. I have been lucky enough to be one of those who have had the opportunity to enjoy the woods as I was growing up. I am now fifteen years old and feel as though the outdoors was and still is one of the main factors in my life. Ever since I was knee-high I have loved to wake up at day break and head for the lake to test my skills at fishing.

This fall, my father and I have spent time in the woods, trying to polish up our knowledge of nature. I get tired of hearing people speak of how inhumane hunting is. If they feel we are endangering the existence of wildlife, I would like to see their expression while they watched the animals die of starvation because of over-population. No species ever hunted by modern sportsmen has ever become extinct. There are more than 100 species on the endangered list, none of which have ever been hunted by modern sportsmen. Hunters today are not against wildlife preservation. As proof, hunters contribute mo money for wildlife management t ALL the preservationist groups co bined.

I hope that I never see the when hunting is stopped by a gr of people who don't look beyond television. I am one of many will oppose any actions against outdoor activity of hunting.

Clint Demetriou
Tucker, GA

I have been wishing for so time to write you on the gen excellence of your magazine. H ever, the November edition pron ed me to do so at once.

I particularly wish to comm you on the editorial by Mr. Carl and the article, "Anti-Hunting Wasteful Issue."

I have hunted all my life, sixty-seven, and though lately jaunt for quail is the extent of activities, I simply cannot un stand the anti-hunting crowd. I especially upset by the recent documentary, "The Guns of tumn." Such blatant twisting of facts should not be allowed and so-called follow up explanation nothing to mend the situation.

Unfortunately, we do have s so-called hunters who abuse privilege, but in my lifetime found them to be much in the norority.

As stated by Mr. Kozicky Mr. Madson as well as by Mr. son, why can't the non-hunters, are entitled to their opinion, l the hunters alone and use thei ergy in more worthwhile fields

Without sensible taking of and without decent game man ment we soon would have no at all.

May I again congratulate yo the all-round excellence of magazine and especially the format which covers a lot more t just hunting and fishing alone. up the good work and perhap will tip the scales against such aganda as "The Guns of Autu

Leon English
East Point, GA

Coming Next Month...

The Nightstalkers. Jingle Davis relates a novice's initiation into three unusual coastal fishing techniques.

Less Waste with Waste. This seeming contradiction in terms is explored by Becky Marshall's report on a method of solid waste disposal which is more efficient than conventional landfills.

Seashells. Almost everyone collects seashells while idly strolling on the beach. John Young tells of the fascination of seashell collecting as a full-time hobby.

Purple Martins. Long sought by man as a neighbor, this beneficial bird is profiled by R. A. Romanes in February OIG.

Our magazine wants to serve all Georgians. Why not subscribe today? If you are a subscriber—send us the name of a person you'd like to see get our magazine. We'll send a courtesy copy of *Outdoors in Georgia* along with a note saying that you took the time to be thoughtful. That's a lot of mileage for a post card!

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Outdoors in Georgia

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BACK COVER: Twa hat-air ballaans prepare ta ascend. Phata by Bab Busby.

MAGAZINE STAFF
Phane—656-5660

David Cranshaw · Editar-in-Chief
Bill Marehead . . . . . Editar

Aaran Pass . . . . . Managing Editar
Rebecca N. Marshall . . . . . Writer
Dick Davis . . . . . Writer
Bill Hammack . . . . . Writer
Jingle Davis . . . . . Writer
Susan Waad . . . . . Writer
Liz Carmichael Janes . . . Art Directar
Jase Vinas . . . . . Artist
Bab Busby . . . . . Phata Editar
Edward Brack . . . . . Phatagrapher
Cathy Cardarelli . . . . Phatagrapher
Jim Cauch . . . . . Phatagrapher
Priscilla C. Pawell . . . Circulatian Manager

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Coastal Choice

This bicentennial year is sure to focus t ention on many parts of our state. Georgia's ely coastline will certainly be one of ose areas most prominently displayed.

As the Coastal Zone Management Program ters its second year in the planning ase, more and more Georgians will be lled upon to give their ideas and expertise the future of Georgia's coast.

Also, the Department of the Interior's reau of Land Management has announced ans to issue offshore oil and gas drilling ses, beginning this September. Georgia's ter continental shelf is considered extremely omising by several major petroleum mpanies.

Both the Coastal Zone Management ogram and the outer continental shelf ses will be issues of prime importance to all orgians, especially those who live in the coastal counties. Some Georgians will voice vironmental concerns over the issues, while ers will be more concerned with nomic ramifications. Others, hopefully, ll be deeply involved with both the vironmental and the economic-industrial pects.

There will be meetings. There will be cussions. There will be speeches. And, cause even sincere Georgians don't always agree on the best approach to any issue, there will be controversy.

There's nothing wrong with thoughtful disagreement, but no genuinely motivated Georgian wants to see issues as important as these become nothing more than shouting matches.

Let's hope that all Georgians who get involved—as every Georgian should—will get involved with a warm heart, a cool head, but not with hot-blooded, unthinking emotionalism.

It's our state and our future that will be at stake. We're the ones who stand to benefit from decisions we make this year.

We'll undoubtedly make far reaching decisions on Coastal Zone Management and outer continental shelf and other issues. If we're careful to keep the atmosphere of all discussions thoughtful, we can make the best decisions, and in the final analysis, that means we shall all be winners.

David Crenshaw

the NIGHT STALKERS

by Jingle Davis

Photography by the author and Duane Harris

The night stalkers shuffled, three abreast, through the shallow water of the coastal Georgia sandbar, lights from their Coleman lanterns directed downward b strips of aluminum foil wrapped around the glass gl

One of the group was a novice flounder gigger, ni stalking for the first time. She kept remembering the expedition leader's final words before they set out.

"You want to watch out for sting rays," the lea said casually. "They bury down in the sand—look a lot like flounder. But don't step on one. Man steppe a ray last week and almost bled to death before th got him to a doctor."

The fact that the novice was wearing tennis shoe was not especially comforting. At night, everythi looked different—strange and faintly menacing. Li from the lanterns reflected crazily off the still water distorting images on the sandy bottom. Shadows c baek and forth near the rims of the circles of light,

ver coming quite close enough to be identified as
end or foe.

She gripped the broom-handle shaft of her gig more
htly and stared down. She saw a flutter in the sand
t ahead and froze, heart pounding. But it was only an
derwater current swirling the sand.

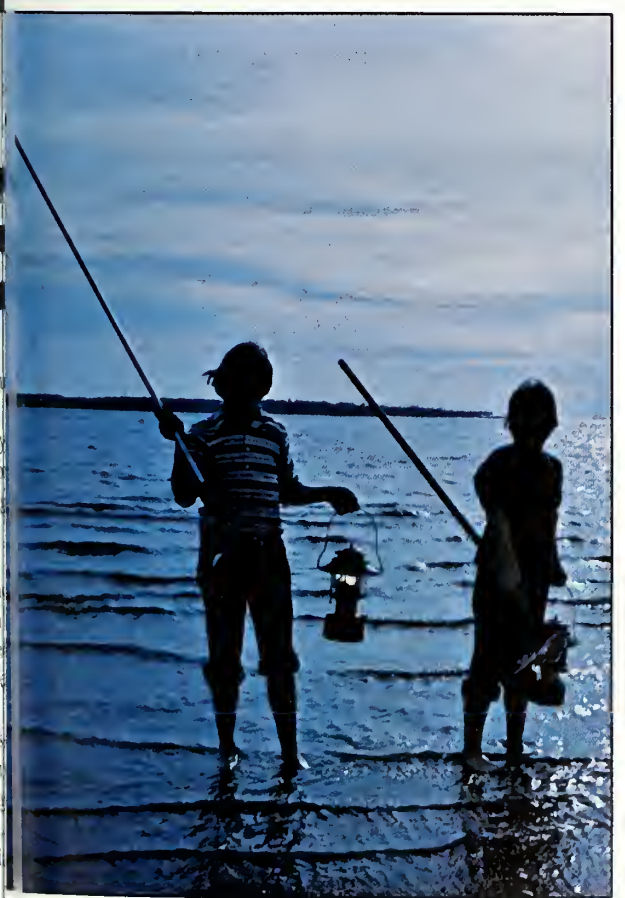
She started to breathe again and moved on,
nembering to shuffle. Suddenly something exploded
der her feet, nearly knocking her off balance. She
led, did a wild splashing dance; nearly dropped the
tern, but didn't; did drop the gig, almost spearing
right foot.

Her companions regarded her with disgust. "Well,
t should scare off every flounder in the neighbor-
od," one said crisply.

"But I stepped on a sting ray!" she protested.
almost got me."

The expedition leader—an expert flounder gigger of
ne years' experience—silently raised his gig. Impaled
the head was a large flounder, still flopping.
'd speared the fish after the novice had spooked it
m its hiding place under the sand.

Since that first night, she has become fairly proficient
carrying a lantern, balancing a gig, and keeping her
uth shut no matter what flutters under her tennis-
d feet. Though she has yet to spear her first flounder,
can clean and filet one and have it cooking over
each fire in less than five minutes.



She has since added night seining and mullet jumping to her night stalking aetivities. Though these sports are not without their heart-stopping moments, she knows she at least has a better chance of catching something. Seining and mullet jumping do not require the coordination required by flounder gigging.

She made her first night seine, again under the tutelage of experts, and was fascinated by the variety of sea life which came in on every haul.

The seine they used was a fifty-footer, with a mesh scarcely larger than that of a ping-pong net. Lead sinkers were sewed into the net's bottom line, and cork

floats were spaced at intervals along the top. At either end of the net were six-foot poles. An experienced seiner carried one pole out to chest-deep water, while she stayed close to the beach.

As the two pulled in unison, parallel to the beach, the net arced out in a bow. She'd been told to drag the end of her pole through the sand, which made pulling more difficult, but which also kept the weighted net line on the bottom and prevented shrimp and fish from escaping underneath.

After a minute or two of dragging, the seiners felt the net begin to jerk and sway as fish and shrimp were overtaken and trapped inside. The shrimp leaped high out of the water, sometimes jumping over the net and streaking for safety. Often they made end-runs, stinging the novice's bare legs as they passed. She tried not to think of what would happen if a sand shark careened around her end of the net.

Five minutes later, the deep-end seiner signaled he was ready to haul in. He gradually started to pull his end in a curve toward the beach, and the novice was careful to keep tension on her end of the net. The seine, winking phosphorescence, flowed slowly up through the shallows toward the beach, the top folding over on itself as it left the supporting water.

She learned that cleaning a seine net is an adventure, different every time. Armed with a lantern or flash light and a bucket, she staked out her territory and

carefully began to separate the bounty from the trash.

Big blue crabs, claws snapping, made the work harder and more hazardous. Bucking shrimp, hard to hold, were equipped with sharp horns on tail and head. The stinging tentacles of jellyfish were almost invisible against the seine's fine mesh. Small, brightly colored fish—returned quickly to the sea—studded the net like jewels.

The sorters threw back conch shells tenanted by crusty black and orange hermit crabs, the emerald sheets of sea lettuce, the clammy brown clusters of sea life called dead man's fingers, and the random oyster shells. If they came across a sting ray or horseshoe crab, they'd ease the creature carefully out of the net with a stick.

The bulk of their catch was usually shrimp. Sometimes the night stalkers would head them on the beach and boil the shrimp in seawater in an iron pot over a driftwood fire.

The novice was beginning to get the idea she knew all there was to know about night stalking the beaches when one of her fishing pals invited her to go mullet jumping. It turned out to be the most exciting trip of all.

Their equipment was a small batteau outfitted with a three-horsepower motor, a burlap bag, and the inevitable Coleman lantern.

As she stepped into the boat, she noticed the conspicuous absence of a cast net. She wondered about that, but, not wanting to advertise her ignorance, didn't ask. If the captain thought he could catch fish without net or pole, that was his business.

The captain seated her in the bow of the boat and handed her the lantern, its brilliant white light hidden under the burlap bag. She could see the logic in that. The exposed light would blind the captain as he guided the small boat through the twisting marsh creeks. Besides, with the Coleman under wraps, they could see all the subtler night lights: stars sprinkling the velvety sky; the winking red and green eyes of channel markers and buoys; the sweep of a distant lighthouse beam; the warm golden glow from the windows of faraway houses on shore. Even the wake of their boat glowed like a comet tail as millions of tiny bioluminescent creatures, stirred up by the churning propeller, flashed their miniature distress signals.

When they reached the tidal inlet between two barrier islands, the captain cut the motor and let the boat drift with the current. For the first time, she could hear the small night sounds all around them.

A clapper rail called hoarsely from a nearby marsh. Terns voiced their shrill and lonely night cries from a sandbar. Wavelets slapped softly against the hull. A mullet jumped and fell back with a sullen splash.

The captain heard the mullet, too. "Get ready to hold the lantern up when I give you the word," he ordered, cranking the motor.

Now, he shoved the throttle wide open. She shivered as the cool night air whistled past, whipping her hair

inst her cheeks. She clutched the bow line with
hand; in the other, she held the handle of the
ern, ready to raise it on cue.
Now! Hold the light up!" the captain called. Still
sure what he had in mind, she yanked off the burlap
held the light aloft, blinded by its glare.
The first mullet hit her squarely in the back of the
k; the second landed in her lap, and the third, fourth
fifth whizzed dangerously close to her face. She
ped, astonished by the sudden flashes of silver that
ne rocketing toward her out of the darkness.
Grab those fish!" the captain shouted. "They'll jump
k out if we don't get them in the bag!"
Still holding the lantern and dodging the incoming
llet, she scrambled around, trying to pin down the
pery, wiggling fish. As often as not, the mullet
aped back to the sea, but it didn't matter, as more
t hurling themselves into the boat. She began to feel
t like the clown target in the ball-pitch booth
he fair.
For several minutes the captain continued to zig-zag
k and forth through the school of mullet. Excited
the sound of the boat's propeller, the fish leaped high
of the water, aiming for the bright light of the
tern. The novice had her face slapped by a wet
llet more than once that night, but it was all
rthwhile.
They brought back a sackful of fat, fresh mullet
ich they smoked to a golden brown in the captain's
nemade smoker.
Eating fresh seafood cooked on the beach is the very
t part of night stalking, she's decided.

To Cook Your Catch on the Beach

Grilled Flounder

Build a driftwood fire, and let it burn down to glowing coals. Completely coat the cleaned and scaled flounder with Miracle Whip salad dressing, and place the fish gently on a grill above the coals. Turn the fish only once during cooking. It is done when the fish flakes easily and no longer appears translucent. Serve with salt, pepper and lemon juice. (Salad dressing seals in the natural moisture of the fish and prevents over-drying.)

Seawater Shrimp

Hang an iron pot filled with seawater over a hot fire. Remove heads from the shrimp, and when the water boils, place the shrimp in the pot. As soon as the water again comes to a boil, the shrimp are cooked. Remove the pot from the fire at once, and lift the shrimp out with a small dip net or slotted spoon. Serve hot with crackers and cocktail sauce made from ketchup, horseradish, worcestershire sauce, lemon juice and a drop or two of hot sauce.

Captain Doc's Smoked Mullet

A charcoal grill with a domed lid can serve in place of a smoker. Cut mullet in half down the backbone, but do not scale. Build a wood fire in the grill, and let it burn down to coals — smoked mullet are best when cooked for a long time over a very low fire. Add green wood chips as necessary to create smoke. Salt and pepper the fish and place scale-side down on the grill. Smoke at least two or three hours; preferably for eight. Serve with lemon juice.

Purple Martins

R. A. Romanes
tography by the author

The bird that never rests—that is the Indian name for the popular North American swallow better known as the purple martin. This bird is larger and more musical than any other member of the swallow family, including the time-honored swallows of Europe and Asia.

Since Biblical and mythological times, swallows have been cherished as harbingers of spring. Their graceful flight and sociable ways, and, more especially, their ability of "knowing the time of their coming," has attracted man's attention since the dawn of civilization.

Each year, the first purple martins to return from their South American winter quarters to ancestral breeding grounds in the gradually greening north spy out locations with suitable nesting places for the birds that follow. These first arrivals are usually older males.

In the foothills of Georgia's Blue Ridge Mountains, martins are rarely seen or heard before the first week of March. However, unusually warm weather in late winter or record breaking cold days in spring will hasten or delay the birds' arrival.

Before the introduction into America of the axe and the crosscut saw, colonies of the birds often nested in cavities of giant dead trees and high tree snags. These nesting places bordered or overlooked open terrain such as meadows, fields or

river lands which harbored an abundance of flying insects, thus providing food for the martins and their ever-hungry nestlings.

Now, as in times gone by, many martin fanciers in Georgia and other parts of the Deep South provide an abundance of nesting places for the birds. They suspend many hollow gourds from wooden cross-pieces on high poles, or from young trees or tall saplings set up in an open place near a house or barn. These "martin poles"—together with the farmer's mules, milk cow and clucking hen with her many biddies—were formerly an integral part of the southern farmyard.

Early settlers and farmers in the South were among the first to recognize the value of purple martins as guardians of their poultry. In the days when large predatory birds were abundant, it was not unusual to see two to three dozen martins attacking and chasing a high-flying hawk away from their nesting territory. They would dive and dart at the hawk from every possible direction while sounding a loud distress call which all wildlife, as well as the attuned ear of the farmer, could hear from afar.

Known as gregarious birds, purple martins often nest together in large numbers. They feed exclusively on insects they catch in the air and drink while in flight by dipping up mouthfuls of water from the surface of a lake or stream.

When perched on the top of their nesting places, the birds often entertain listeners with a soft warbling tune. The resonant calls of "Look' ere-Look'ere" are uttered only in flight. In spring this song is often heard from high in the sky before the bird itself is seen. Then, too, there is the purple martin's "liquid bubbling chatter" that can be heard around its nesting place from the break of day till nightfall.

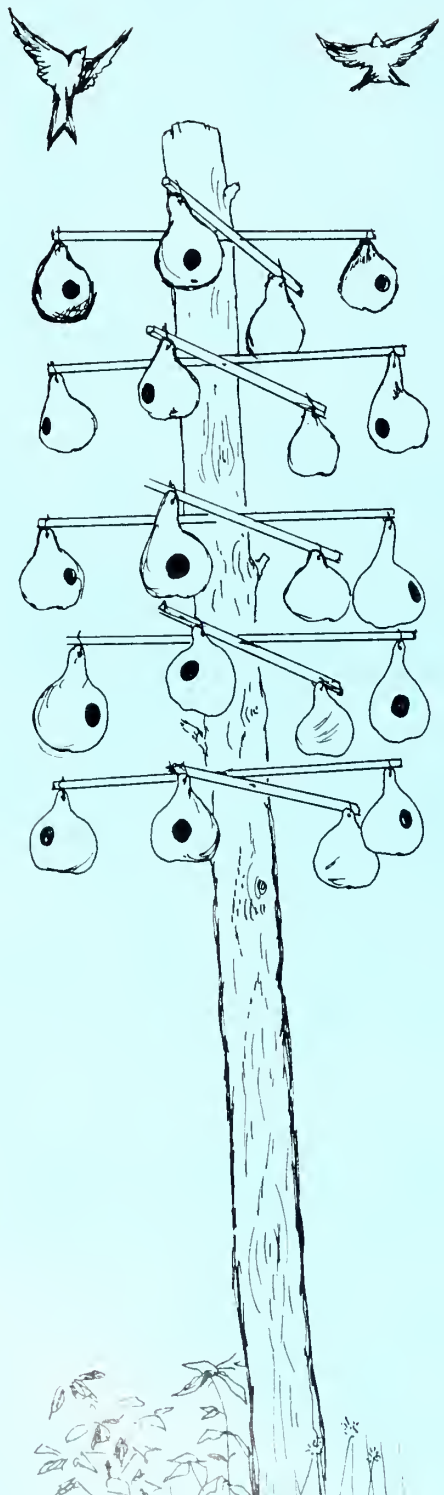
Except when nest building, the purple martin is rarely seen on the ground. The need for bits of clay, dry grasses, tiny dead twigs, dead weed stems or, occasionally, bits of lime or egg shell brings martins to the earth.

Egg laying does not begin [illegible] at least not until all trees [illegible] foliage. The eggs are pure whit[illegible] usually number about four o[illegible] They are generally surrounde[illegible] pieces of green leaves, whic[illegible] adult birds tear off from the fo[illegible]

Frequently, bits of green leaves are carried into the nest, even after incubation has started.

After hatching, very few songbirds have to stay in their nesting places as long as the fledgling purple martins. When old enough to leave the nest, these young birds instinctively fly to a high place off the ground—the tops of trees, or wires, or cross-arms of light and power poles. There the parents continue to feed their offspring.

As the daylight hours of summer get shorter, and the young birds are on the wing, the purple martins form flocks which fly south again, often leaving the Blue Ridge Mountains of Georgia by as early as the second or third week of July.



Martin gourds, and other dwellings

by Gib Johnston

Art by José Vinas

Although we know that they are far from ideal quarters, gourds are traditional for martin "houses." Years ago, poles with martin gourds were part of most every farm in Georgia, but like other victims of "progress" these, too, have passed.

If you would like to try this unique way of attracting martins, you'll need gourds (some dry, short-necked, bottle variety), a 12-20 foot pole, 7-8 crossarms (to which the gourds are attached), and some stout cord.

Cut a hole in each gourd 2¼ inches in diameter, shake out the seeds and spongy material inside, drill a hole through the tip of the gourd's neck, and drill one or two small holes in the base for drainage.

Attach crossarms at least 8 feet from the ground and about 2 feet apart. With string, attach gourds to the crossarms about 1 foot apart.

Place the pole in an open area, well away from houses or trees and near open water if possible.

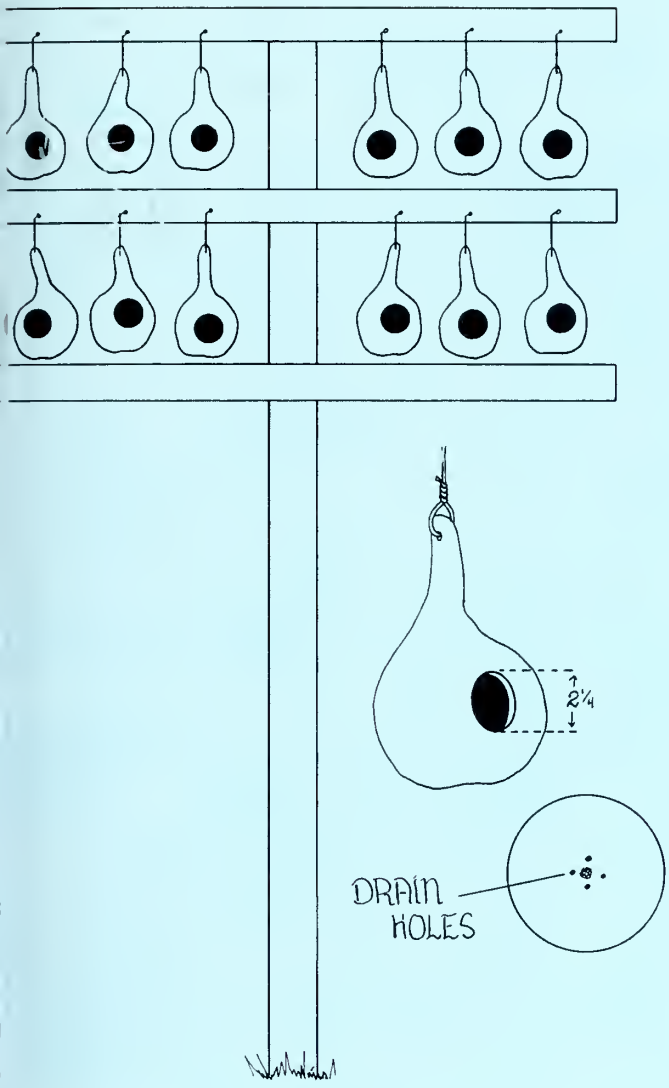
Don't be discouraged if you get no birds immediately, as it may take them a year to find your offe However, any bird that can 15,000 insects per day is wortl wait.

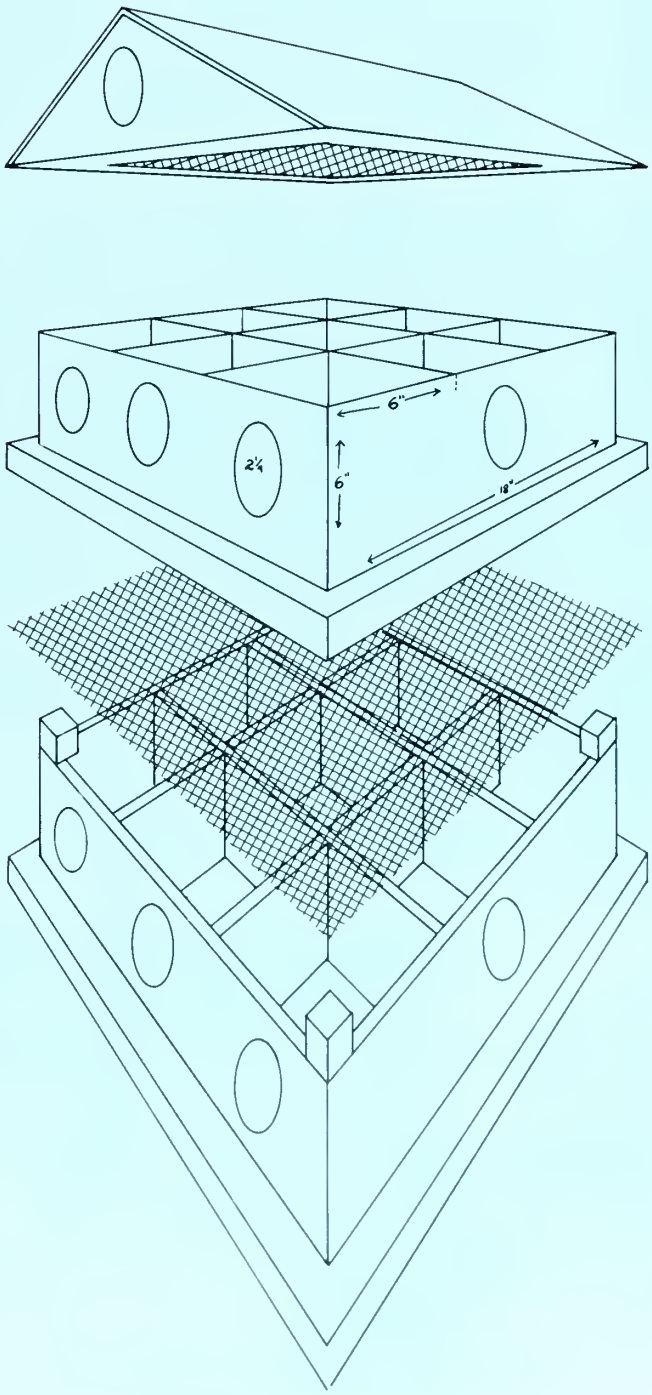
The more modern methoc housing martins is an "apart complex" made of one or more ers of 6 inch boxes, each wit own 2¼ inch hole. This arr ment is cooler, dryer, and easi clean and presents fewer su problems for the nestlings.

Whichever type you decide should be taken down for cle in September and re-erected in February. A teaspoon of pow sulphur in each nest compar will prevent mite infestation.

Erecting your martin poles i February will help in deterrin by flocks of starlings and spar which generally nest later i year. Undesirable birds can al quickly evicted by lowering th and removing the nest and eg

Now is the time to star projeet; martins should begi riving in March. I'm lookin some gourds now.


2¼
DRAIN
HOLES


6"
2¼
6"
18"

GETTING RID OF TRASH

by Rebecca N. Marshall

Photography by Ed Brock

The Cobb County garbage baler processes industrial and household waste. Compression allows for burial of more garbage in less space.

In many American kitchens, trash compactors are becoming as common as dishwashers. But the kitchen isn't the only place where waste is being compressed before it's disposed of. Several counties and municipalities across the country are using this same principle—on a much larger scale, of course—to reduce the volume of their garbage.

Cobb County, part of the Atlanta metro area, is a pioneer in this process. The Cobb County baler was one of the first in the country, and

since it began operation in the fall of 1974, it has processed more than 107 million pounds of waste. It now is handling an average of 400 tons each day, but can take care of 1000 tons per day

When commercial garbage and household waste are dumped into the baling shed, front-end loaders push it into a deep trench. It falls onto a conveyor belt, which carries it up about 30 feet and drops it into a pit (called the baler hopper). Three rams then apply five million pounds of pressure to the garbage, forming bales that measure 3x3x4½ feet; these each weigh about 2500 pounds. From start to finish, the baling operation takes only 90 seconds.

The bales then are pushed out of the machine and onto a truck which carries them to the bale fill. There, a front-end loader takes them off the trailer, and the driver uses them like giant building-blocks to construct the fill.

In any sanitary landfill, dirt is scooped ou and garbage is used to fill up the hole. But i a balefill, bales are stacked one on top o another, and the area is rebuilt much like th foundation of a house is constructed. Each da the surface of the bales must be covered wit dirt, but the steep sides can remain uncovere

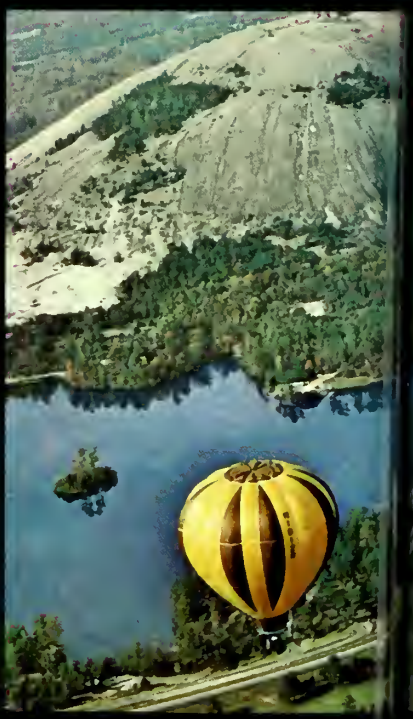
The Cobb County balefill has 116 acres, an this space will contain the area's garbage fo about 20 years. It can be used much longer tha any conventional landfill because the balin process reduces the waste to one-seventh of i original volume.

Once filled, the area will be landscaped, ar about a year later it can be used again, fo recreational, agricultural, or light commerci and industrial purposes.

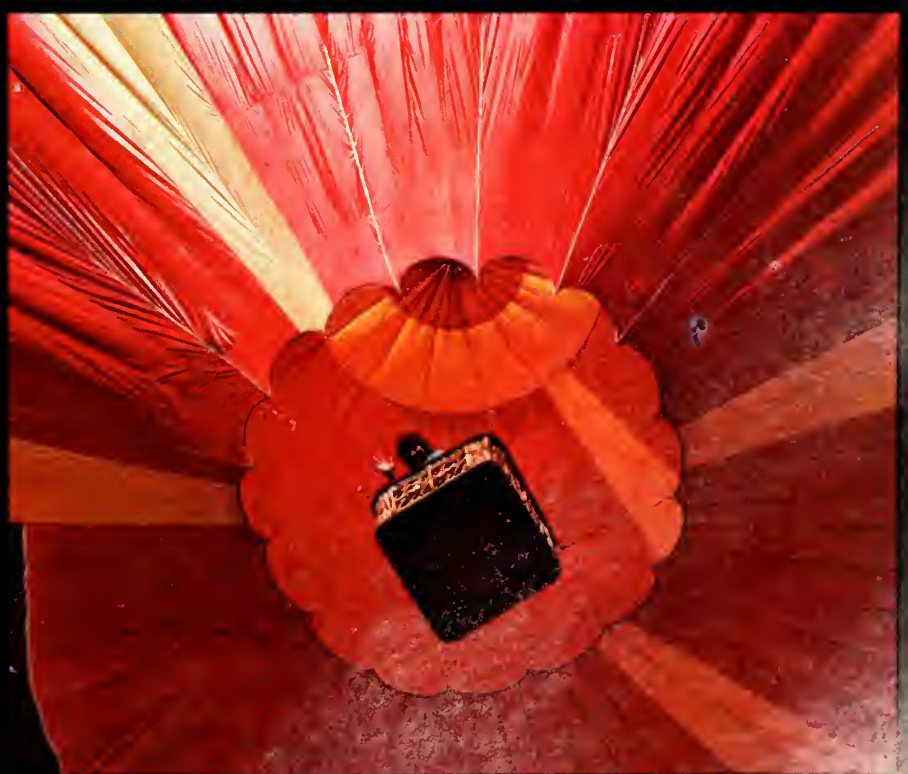
As long as people generate garbage, som thing must be done with it. And burial is pro ably the least offensive way to get rid of it. Sin baling waste helps to conserve land, there so may be trash compactors everywhere—fro small kitchen units to giant balers processi the garbage of thousands.

Lighter than air

by Bob Busby



The roaring burner keeps the balloon and you aloft, while drifting with the wind.



THE RIFLE

Bill Morehead

Photography by Bob Busby

was gone when the family moved. The rifle was
n to me on my tenth birthday by Uncle Howard,
I had diligently used it to reduce the squirrel popu-
n from Dirtcellar Mountain to Taylors Ridge. The
of my golden-boy years had disappeared.

got the letter from home that the rifle was gone
e I was overseas (I sat down in my foxhole and read
t it while holding another rifle, an M-1). Dad had
ed up in life, from Superintendent to General Man-
of the cotton mill. The change, of course, meant
the family also moved up, from the "super's house"
ne general manager's house, way up on the hill.
arently the rifle had somehow not made the move.
any a man has had a love affair with a rifle or a
gun. I have had many myself—with Parkers,
vnings, Remingtons and others. But this wasn't your
l infatuation with a rifle. This was a boy's rifle—and
n to me from the one guy in the family who saw a
decency in the freckled-faced, stubbed-toe ruffian
I was.

ne rifle became a part of me, from the start. An old
hester 1890 with the 1890 and 1892 patent claims
, and only shot 22 longs. The stock had the curved
plate, the barrel had the octagon shape, and the
rm was dainty and fit just right in my ten-year-old
. The old "buffalo" sights seemed to aim just where
and I don't remember ever having to shoot more
twice to bring down a squirrel with that gun.

vas the kind of ten-year-old who could break an
in five minutes, but I never did anything to that
except lavish it with love, care and 3-way machine oil. The stock was rubbed with the affectionate hands of a boy. I bet if you could hold that rifle now and smell the stock, you could sense faint odors of airplane glue, pencil lead, beeswax and bream.

They never found it. Dad asked around, but of course nobody could find anything about where it went. Things like that just disappear sometimes. I like to think that the rifle sooner or later reappeared in some rural house. I like to think that it found its way into some other young boy's hands, and that he took the rifle and carried it with him, as I did, to sit at the bottom of some tremendous oak tree at the edge of some pasture under an October sky and perhaps to see the swaying of a squirrel's tail amidst the colored leaves.

I never did try to replace that rifle. I got another one similar to it—the old Winchester Model 62A, which looks like the '90 but for a round barrel, straight butt plate and heavier forearm.

Yesterday, I bought another Winchester 1890, in good shape. I found it in the back room of an old pawnshop. This rifle has both the 1890 and 1892 patents, the curved butt plate, octagon barrel and dainty forearm. It looks just like the one I used to have.

But it isn't mine. Mine is a memory. The one I just bought is for my boy on his birthday. You see, he is way behind on his oak tree sitting, watching the clouds billow across a reddened October sunset, looking for the sudden slight movement that could mean a squirrel among the leaves. If he has this rifle, he'll be there and—since I'm his father and he needs my guidance—I'll get to be there again, too.

Seashells

hn Young

ography by Cathy Cardarelli

metimes when I look at the brightly colored sea- over my mantel, I recall going to the beach as a The beach for me was the long, white, sandy flats characterize the Golden Isles of coastal Georgia. year, our family trek ended somewhere between nah and Cumberland Island and it was there that id my first seashell, a small whelk. Inside its gentle s the seashell held captive the sounds that unlocked d's imagination. Sounds of distant places like the African desert or the Hawaiian coast with its g and crashing surf echoed from the tiny seashell. now that this total fascination for the seashell had a childhood hobby.

lid not and this is unfortunate because now, many later, collecting seashells occupies much of my time.

v natural things are preserved in any way which ains their natural beauty. For this reason, sea- are particularly attractive to collectors.

other reason the seashell is so widely sought after o do with its mystique. The stories that surround ashell are quite interesting, especially considering ct that the seashell is really the exoskeleton of an l. Mollusks, the animals which produce seashells, lieved to be at least 600 billion years old. Through the ages, seashells have been important to man. Phoenicians, an early seafaring people, traded seashells to the Egyptians around 4000 B.C., thus providing one of the first monetary systems in the world. Even today in some remote areas of the South Pacific seashells are used to barter or trade for goods.

The Greeks had their favorite shell in ancient history, the scallop. According to Greek mythology, the goddess Aphrodite, who was born from the sea, emerged from a scallop shell. Later, the scallop shell became a symbol of western Christendom. Crusaders picked up the scallop (*Pecten jacobaeus*) shells along the Palestinian coast to be worn as sort of "I was there" badge. In more recent times, the scallop shell adorned the coat of arms of Sir Winston Churchill. Early in American history, when trappers invaded the Hudson Bay area, they found that a string of large, ivory-like tooth shells (*Dentalium pretiosum*), commonly known as the money tooth shell, was still being used as "money." It would buy perhaps a canoe or even a squaw from the native Indians.

Even today shell collection, or "shelling," has a monetary aspect. Every time I step upon a beach, my head turns instinctively downward and dollar signs begin to float in the recesses of my mind. I start thinking of finding a *Conus gloriamaris* (glory of the seas

cone), or a *Leucodon cowrie (Cypraca levcodon)* which would net me considerable sums. But, alas, the coastal waters of Georgia do not entice these creatures to live here. Coastal Georgia does, however, have many mollusks which are well worth collecting for monetary purposes and aesthetic value.

Coastal Georgia has not produced any big money shells, or shells which would sell for a thousand dollars or more. But the chance of finding a new species, like a new variety of slit shell, is always there. Georgia does have some seashells which, if found on a regular basis, can produce some income. Shells like the common paper nautilus, lions paw, angel wings, Georgia volute, and bequaert's murex are rather rare and valuable, but most of Georgia's coastal waters yield a variety of colorful, but common shells. Some of the more well-known varieties found on the coast of Georgia are: Scotch Bonnet, Lightening Whelk, Common Sun Dial, and the Shark's Eye.

Georgia's beaches are excellent for beachcombing for shells, as the gentle waters wash many perfect specimens ashore. The best time for shelling is an ebb tide with tides from a full moon, which are usually low, being especially good. Beaches and shores will often contain live and sometimes rare specimens in numerous quantities after a storm.

Like any other sport or hobby, "shelling," or collecting seashells, has an ethical code. Where specimens of living mollusks are being obtained care must be taken. Only take from nature what you need. If you must take it live, then take only one which will help you towards completing your collection. Keeping in mind the shellers' motto "throw back the live," will help you and the thousands of others that journey to the Georgia coast every year. By throwing back the live shells, you give them a chance to reproduce, providing more shells the next year.

Collecting seashells requires skill, determination, luck, and care. Mollusks are found in some precarious places, but the right equipment and knowledge will facilitate your search. Some species of seashells can be dangerous (especially among the conus variety). Knowing their identity can prevent accidents to you and others. If you disturb a mollusk habitat, always try to leave it as you found it. If a mollusk is found on or near its eggs, resist temptation to collect it, as young mollusks depend on their mother. Immature mollusks should be left to reach maturity because as adults they can reproduce offspring that later can be collected as shells.

Who knows, maybe the next time you go to the Golden Isles you'll be walking along some sun drenched beach, watching the skimmers and sea gulls, with thoughts of finding shells in the back of your mind. When it happens, your foot steps on something hard-set, and you reach down and pick it up. It could be just another horse conch, or maybe an undiscovered species dredged up after a sudden shift in the earth, or it could be just the beginning of a lifetime vocation . . . collecting seashells.

Far left, Turkey Wing—The obvious resemblance in design and coloration is responsible for the naming of this common shell.

Lettered Olives—These common shells are named for the design on the shell. The olive family is very numerous and widespread.

Far left, Apple Murex—This relatively common shell is named for the apple pink coloration inside the shell.

Sundial—This brilliantly colored shell is very popular with collectors and the makers of casual jewelry.

Far left, Wormshells, top, and Shark's Eye at lower left. Wormshells are valued by collectors due to their unusual configuration. The Shark's Eye is common and often used as jewelry.

Sunray Venus Clam—A very common shell named for the "sunray" design on the shell.

GEORGIA
1777—1784

During the Revolutionary period the State was composed of eight counties (Camden, Glynn, Liberty, Chatham, Effingham, Burke, Richmond and Wilkes). After the British surrender (1781) and after the Treaty of Paris in 1783, the counties of Franklin and Washington were added. Some of the early trails are shown here. Not all of the places shown on map existed at that time.

Dangerous DAN McGIRTH

by Bill Morehead

Dan McGirth was a prominent Revolutionary War re in the state of Georgia. Yet there is no McGirth nty, no town named McGirth, no McGirth Hall at university and no Daniel McGirth Historical Society. y?

ecause Dan McGirth was a Tory, a Loyalist. But McGirth was much more than that, and in a rotically exaggerated sense, he is an example of the t of those Americans who, through fate or fortune, se the wrong side. While most of these Tories faded history, Dan McGirth and his exploits deserve e than a passing mention in some dust-covered k.

McGirth terrorized Georgia during the Revolution. and his men became so feared that they were often ed at battlesites at which they could not possibly e been present. McGirth, *et al,* became the legendary ins of Georgia—and many of the legends were ed during the war. One historian told me that he find references that McGirth took part in *every* e that occurred in Georgia—an obvious impossiy—but an indication of the fright McGirth created ng the patriots.

McGirth did not start out to be a Tory. A native of Kershaw District in South Carolina, he was a scout the Patriots in 1775. A scout skirted woods and nps, sought out the enemy, and reported back to a lquarters, often heavily pursued by the foe. The t that McGirth was a scout is indicative of his expert emanship; poor horsemanship made for short-lived scouts, and Dan McGirth survived a lot of adventures in his time.

One of the legends about McGirth relates how he came to switch sides. An almost unbelievable tale, both the American and English version reflect the same story. McGirth had a favorite horse, a white mare named "Gray Goose." She must have been some horse, the envy of other Americans—too much envy, in fact.

Tradition says that a rebel officer on the St. Illa River (now known as Satilla) wanted McGirth's "Gray Goose" for his own. McGirth would not sell her, and the officer concocted a charge on which to courtmartial McGirth. According to legend, McGirth was found guilty, horsewhipped, and imprisoned.

McGirth had his horse taken away from him on the false charge, was publicly chastised and humiliated. Enough reason, one would think, to become a deserter. The story is not so simple, as McGirth escaped his imprisonment, somehow stole back his "Gray Goose" and fled—not to the British—but to another group of patriots. He traveled to the St. Mary's River, and there met up with Captain John Baker's soldiers preparing an attack on Jermyn Wright's fort. Jermyn Wright was the younger brother of Sir James Wright, the last Colonial Governor of Georgia. The younger Wright had a plantation on the St. Mary's and had built a fort on the site to protect it.

What happened next, we don't know. Whether Captain Baker's troops mistreated McGirth, or whether he was seeking revenge for his earlier mistreatment, is un-

From a British drill manual, position one of the proper musket firing sequence.

clear. We do know that McGirth decided to side
the British. Late one night, while Baker and his tr
were sleeping, Dan McGirth and his brother, Ja
stole all the horses of the patriots and fled to Jer
Wright's plantation. How many horses—five,
twenty? We don't know, but we suspect that in t
days it would be difficult to steal *one* horse—a po
sion of tremendous value—from a sleepy farm. I
much more difficult must it have been to steal all
horses from a military encampment? Dan McGirth,
brother James, must have been some horsemen—
horsethieves!

While the patriots had mistreated McGirth,
Loyalists most certainly did not. Colonel Thc
Browne's Corps of Carolina Kings Rangers (also kn
as the Florida Rangers) knew a guerrilla fighter v
they saw one. Daniel McGirth jumped from a sco
the Rebel army to a lieutenant colonel in the Loy
Rangers, and brother James was made a captai
the same corps.

The Carolina Kings Rangers was composed of T
(Loyalists), men and boys identical in every wa
the opposing patriots, save for their allegiance to
George. The Rangers had rich men, the elite of col
Georgia, but they had poor men, too. There were
whose hearts went out to their rebellious brethren
who just couldn't bring themselves to stand ag
Mother England.

It has been estimated that, in the colonies as a w
no more than 15 percent of the population were
to the King. The southern colonies simply did n
that calculation. If anything, the split was even,
haps even weighted in favor of England (or more li
in favor of the nearest army). Activities in the sou
theater of the Revolutionary War are not recount
the legendary stories of Lexington, Concord or Bu
Hill. The southern Revolutionary War was a civil
splitting families and friends.

The southern patriots did not wrest their South
the grip of the British on the battlefield. Maybe
happened in certain places like Kings Mountain
Yorktown, but in Georgia patriots occupied abanc
territory as the British withdrew their forces in th
six months of 1782, and occupied the whole of Ge
after July of that year. The British succumbed to a
of will to fight in the southern colonies due as mu
the British Parliament as to the battlefield.

Before that time, McGirth and his brother helpe
British take control of the colony of Georgia. As
were good scouts for the patriots, they became
better guerrillas for the British. From 1775 to
Daniel McGirth and other Florida Rangers swept
coastal Georgia, harrassing the patriots, stealing
from animals, and burning homes and villages.
example, in 1777 McGirth made a foray into
Georgia, stole 2,000 head of cattle and drove
back to St. Augustine to feed the Loyalists.

McGirth (his name was spelled many ways, MACth, McGirt, MacGirt, etc.) and his men continued oot whatever they could find, first from the patriots i then from anyone who was outnumbered. It is ır that McGirth was a mixed blessing to the British, became something of a soldier of fortune answer- only to himself.

n the Fall of 1778, McGirth left Florida and ven- d to Bulltown Swamp and Midway, Georgia. He ght at Midway in November, 1778, but missed Col. hibald Campbell, being back in Florida when Camp- took Savannah that December. McGirth's guer- ıs were with Gen. Augustine Prevost when he took Fort at Sunbury in January, 1779.

Colonel Arehibald Campbell's British forces took ıgusta without incident in late January and early l ruary, 1779. Campbell abandoned Augusta and the n was occupied by the patriots until June 8, 1780, n Loyalist Colonel Thomas Browne took Augusta.

McGirth's fame (or notoriety) prevailed among cherners in the late 1770's. Here is an example of rumors raging among the patriots in 1779:

> And a report prevailed, that brigadier-general revost was ordered to New York under arrest, or not having done more mischief in this state than e did: But if it be true, that he was in copartnership to share all plunder, whether in plate, horses, r negroes, with the famous M'Girt (who was confidently affirmed by most of the British officers hile they were in this neighborhood) the General ill have no great cause to regreat even a dismisson from the service; for M'Girt himself has declared, that his own share of what he has stolen, mounting to his weight in gold, he is now satisfied, will immediately quit his thieving proffession nd settle in West Florida. (*The Gazett of the State of South Carolina,* Wednesday, July 13, 1779.)

ctually, General Prevost left Georgia of his own l feeling he was too old for service. Daniel McGirth, he dismay of the patriots, did not follow the anced intention to quit his "proffession."

illage and plunder were routine wartime activities, tieed by both sides. Indeed, many of the rich men the war were veteran soldiers who got their first th by plundering the countryside. Others plundered tal shipping, under the guise of *privateers*—pirates tely commissioned to sack the enemy, for a cut of ake.

August and September, 1779, McGirth launched mpaign in the wilds of "western" Georgia (an area in central Georgia). McGirth's Rangers consisted ckwoodsmen, Indians—Creek and Cherokee—and ed slaves. The Indians had no love for the patriots, looked to the British for protection and supplies ist the competing backwoods whites. There was no e lost between the Indian and the frontiersman in

An American rifleman dressed in his long "rifle shirt." British irregulars also wore such garb. One English commander referred to them as "split shirt banditti."

A powder horn, often used by irregular troops on both sides.

Georgia. Neither was there any love lost between the slaves and the men who enslaved them, the patriot farmer. The slaves had nowhere to go, but to some it seemed the best route to go nowhere was with McGirth.

Pillage and plunder, terrorism and torture—these were the tools of backwoods warfare. Both sides became experts in these terrible activities. The patriots mounted several campaigns to punish the Indians and destroyed whole groups of villages, raping and killing, leaving thousands of Indians to starve. In turn, patriots captured by the Indians and/or guerrillas met grim fates. In 1811 Hugh McCall in his *History of Georgia* told of what happened to a 12-year old boy captured in one of the raids.

The youngster was suspended "by the arms between two posts" about three feet off the ground. The Indians built a fire, sharpened "lightwood torches" and threw them at the hapless youth. The idea of the "game" was to stick a torch into the body without extinguishing the fire. The anguished screams of the young boy turned into hysterical terror as the fire touched his body. McCall says the game lasted about two hours before the boy died.

Thus was the war fought: ravages and savagery, and "little quarter given." As time went on, even the superficial courtesies of war disappeared, leaving behind only the gruesome evidence of victory, defeat and death—always death. This was the real war in Georgia. The nice war, so to speak, continued around the coastal towns of Savannah, Brunswick and Darien. McGirth was at the center of the ugly real war, which was becoming a little uglier with each passing day.

In the Fall of 1779, Colonel Twiggs of the patr trapped McGirth's guerrillas at Buckhead Creek, Bu County, Georgia. The bloody battle which followed many Tories dead or wounded. McGirth himself wounded in the thigh but escaped on horseback thro an "impenetrable" swamp.

The skirmishes continued. Six months later Twi aided by Colonel Pickens and Captain Joshua Inm pinned down McGirth again, this time on the Ogece River, in Liberty County, McGirth's favorite ha Once more, the horsemanship of McGirth provided means of escape.

Destiny became increasingly less kind to Daniel M Girth. It seemed the harder he fought, and the m skirmishes he won, the worse things got. The twist fate continued. No sooner did his guerrillas effect so sort of control over the colony, than the British pu out almost all of their regular troops.

What had been a sense of victory changed to disn Within six months Georgia again, save for the envi of Savannah, became rebel territory. Never comple under British control, the up-country of Georgia came totally hostile to the Loyalists. For McG things continued to get worse.

In the summer of 1780, Governor James Wrigh sued a warrant for McGirth's arrest because of his selective banditry (for McGirth had focused his at tion on the economics—not the politics—of plund However, in 1781 McGirth regained his commissio the Florida Rangers, as the British became despe to retain their hold on the colony.

By July 1782, McGirth and his band found th selves alone. The British, under Sir Guy Carl abandoned Savannah. Later that summer, McGirth his men arrived in St. Augustine, east Florida. The of St. Augustine was, in 1782 and 1783, overflo

A regulation cartridge box carried pre-fabricated paper cartridges.

refugees and their belongings as Tories poured this British controlled colony from the thirteen s. Mountains of material could be seen at the :s, waiting to be shipped, as were the owners, to r British colonies like New Brunswick, Jamaica, the ımas, and even England itself.

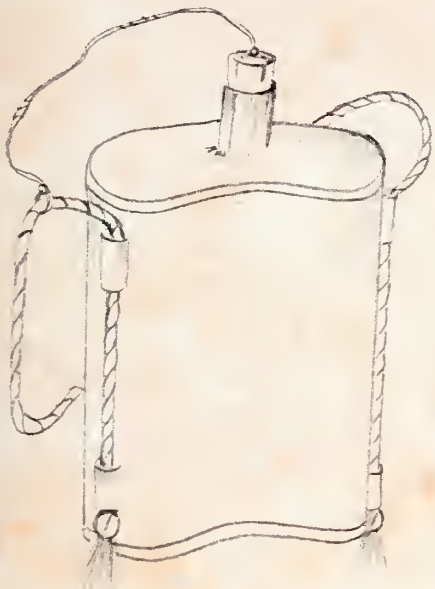
s the refugees crowded the city (and the Creek and okee Indian refugees crowded the outskirts), food me very scarce. East Florida Governor Patrick yn had a major problem, and McGirth—now under wn commission as a bandit—did not help the situ- at all.

uring the interim between the end of the War in outh (1782) and the Treaty of Paris (1783), the ish coveted East Florida, their former colony. They d the British would pull out, especially since it isolated from their other holdings on the continent. Spanish eventually got this wish, but in the mean- they sought to accelerate the withdrawal of the sh by encouraging McGirth and his bandits. By McGirth had become an outright criminal.

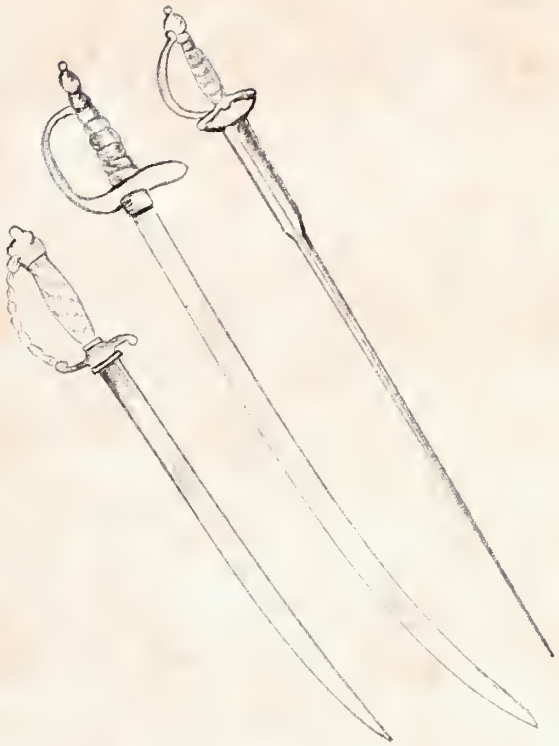
cGirth and his freebooters would, and often did, the southern border into Georgia to rustle cattle, slaves and pillage property. Then they would cross into Florida and do likewise. American, English- Spaniard, all were potential customers of Mc- 's "services." Reluctantly, even the Spanish came gard McGirth's group as outlaws.

is also clear that they were anything but ordinary ws. McGirth apparently had a Machiavellian un- anding of palace intrigue and, while the Spanish playing him off against the remaining Loyalists, irth played both sides off against the middle, while taining good relations with the refugee Indians.

April, 1785, Dan McGirth was caught by the sh and was sentenced to five years in the Cuban



A canteen of the revolutionary period.



Left to right, a hunting sword, a heavy saber, and a small sword. The lighter weapons were normally carried by officers.

prison in Havana. McGirth's understanding and use of palace intrigue can best be understood in that it was the British who interceded on his behalf. Governor Tonyn wrote to the Spanish Governor Zespedes suggesting that McGirth and others be sent to some part of the British dominions. The Spanish refused this request.

The last British ship left East Florida in November, 1785. McGirth apparently spent some time in prison, for the next we hear of him is in 1792 when he joined "General" William Augustus Bowles, a self-commissioned man who fashioned himself a leader of the remaining Loyalist leaning Indians. Bowles and McGirth raided north central and northwest Florida for a time. Bowles was caught, sent to prison and died there.

McGirth was not caught but moved back to Kershaw, South Carolina. That is a little like Benedict Arnold returning to New York to retire. The man who struck terror in the hearts of patriots in South Carolina, Georgia and Florida returned to the same home he left when the war started.

As far as we can tell, McGirth lived in South Carolina until 1805, dying apparently of old age and lost wars. In a notice published in Savannah's *Columbian Museum and Savannah Advertizer,* Susannah McGirth Boyd, daughter, filed a claim for the estate of her deceased father. In that brief manner, notice was given that the end had come for Dan McGirth; patriot, tory, outlaw and Citizen of the United States.

KNAPSACK

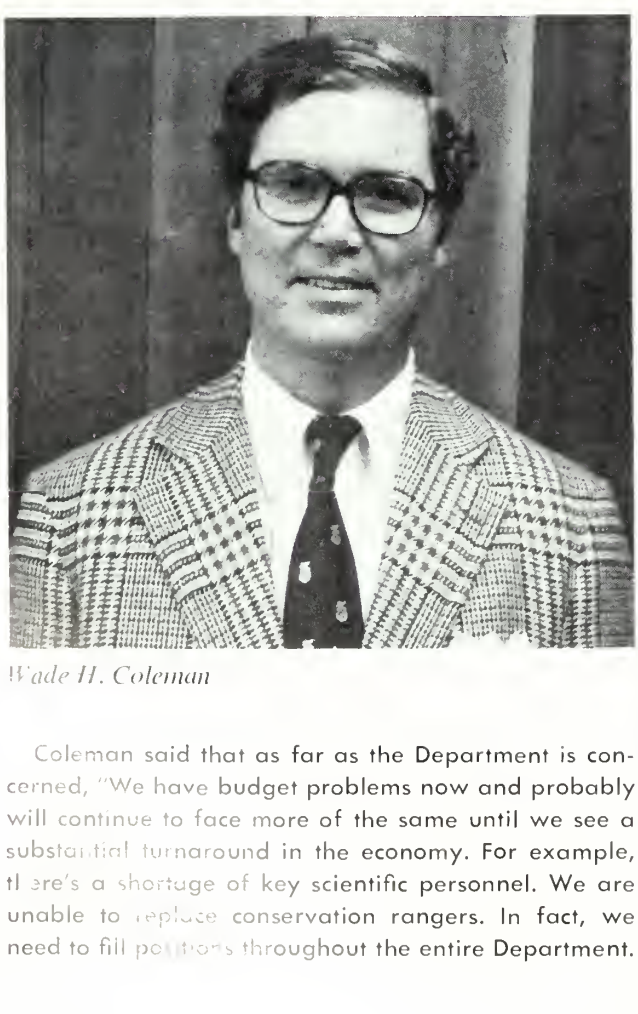
Editor's Note:

This installment of "Knapsack" marks the beginning of a new regular department in Outdoors in Georgia. *Edited by Bill Hammack, this section will try to keep abreast of current events interesting to OIG readers, and present information while it is still timely. For now, "Knapsack" will appear every other month.*

WADE COLEMAN ELECTED DNR CHAIRMAN

Wade H. Coleman of Valdosta was elected chairman of the Board of Natural Resources at its January meeting in Atlanta.

Coleman, a lawyer, represents the 8th District on the Board. "One practice I'd like to continue from the past years," he said, "is to hold our meetings throughout the State, so members of the Board and our staff can see what's happening where it's happening."



Wade H. Coleman

Coleman said that as far as the Department is concerned, "We have budget problems now and probably will continue to face more of the same until we see a substantial turnaround in the economy. For example, there's a shortage of key scientific personnel. We are unable to replace conservation rangers. In fact, we need to fill positions throughout the entire Department. Perhaps we could do a better job if we were able to fill these positions, but we are doing the job."

Coleman pointed out that we're going through a period when "We're going to have to take a long hard look at environmental protection and industrial development at the same time. We hope to enjoy industrial expansion throughout the State without major environmental problems. We want to cooperate fully with Governor Busbee in charting wise industrial growth in the State. Industrial growth is compatible with environmental protection."

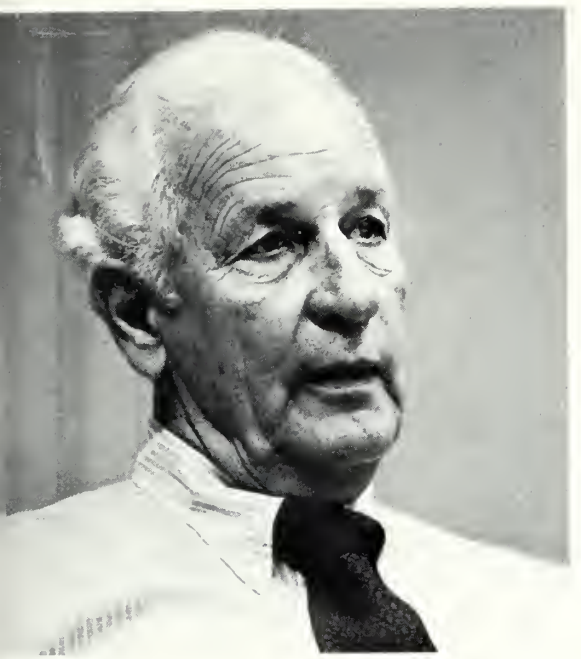
Coleman succeeds Leonard E. Foote of Canton as chairman of the Natural Resources Board. Elected vice chairman was Donald J. Carter of Gainesville. Lee Barber, Jr., of Moultrie was re-elected secretary-treasurer.

FIGHTER FOR ENVIRONMENT RETIRES

Architect of Georgia's water quality program, one of the most effective in the Nation, R. S. (Rock) Howard closes his distinguished career with the State's Department of Natural Resources as he bows out as Environmental Affairs Coordinator.

He resigned as director of DNR's Environmental Protection Division last year, agreeing to serve as environmental coordinator through 1975. Praised by DNR Commissioner Joe D. Tanner and environmental leaders throughout the country and abroad for his outstanding work in water quality, Howard was the first director of the Environmental Protection Division. In this capacity he directed all state activities concerning water quality and air quality improvement, solid waste management, supervision of drinking water supplies, groundwater management, and land reclamation. Prior to his appointment as director in 1972, he served for 8 years as Executive Secretary of the Georgia Water Quality Control Board.

A native of Savannah, Howard earned a B.S. at Clemson and an M.S. at Harvard. A licensed professional engineer, he devoted most of his professional life to public works and public health at local, federal and state levels. Among his professional affiliations are the American Society of Civil Engineers, American Public Health Association and American Association for the Advancement of Science. The list of honors and awards bestowed on him is long. Among them are the Legion of Honor and Merit, Republic of Haiti; Outstanding Public Service Award, Georgia Society of Pro-



Howard

l Engineers and Water Conservation Award, gia Sportsman Federation. In 1971, the Georgia y of Professional Engineers named him Engineer Year in Government, in 1972, he received the torian of the Environment Award from the -Manville Corporation and in 1973, the Water ion Control Federation presented him the Arthur y Bedell Award for extraordinary personal ser- in water pollution control.

'S ALL WET AND FULL OF LIFE?

Our Wetlands" is the theme for the 39th annual nal Wildlife Week, March 14-20.

hile Georgia is rich in wetlands, this priceless ge is constantly threatened by increasing pres- rom developers who seek to convert these areas ustrial and urban uses. They do so frequently se the wetlands' true worth is not recognized," r. Eugene Odum of the University of Georgia, ationally-recognized authority on the environ- . "Wetlands can be valued on at least three levels: lues based on direct products or services, such d, sport or recreation; (2) those related to the nance of the hydrological cycle, such as, for les, maintenance of water tables and water e in periods of drought; and (3) values based on pacity of wetlands to provide life support for nd, especially their capacity as tertiary treat- areas for urban industrial wastes. The relative of these three categories will vary with the loca- type and size of the wetland. In general, cate- s 2 and 3 have the greatest value in the long ut are more difficult to translate into monetary terms, while values in category 1 are more easily assessed for short term values."

Thousands of Georgia students, teachers and members of state and local conservation groups will take part in the observance of Wildlife Week. Earl Martin, Jr., president of the Georgia Wildlife Federation, said the organization will distribute 3,000 kits to school children, primarily in the 5th and 6th grades, which will include posters, iron-on patches for T-shirts and information for exhibits. Teachers will lead the youngsters in discussions and wildlife projects.

BUFORD TROUT HATCHERY

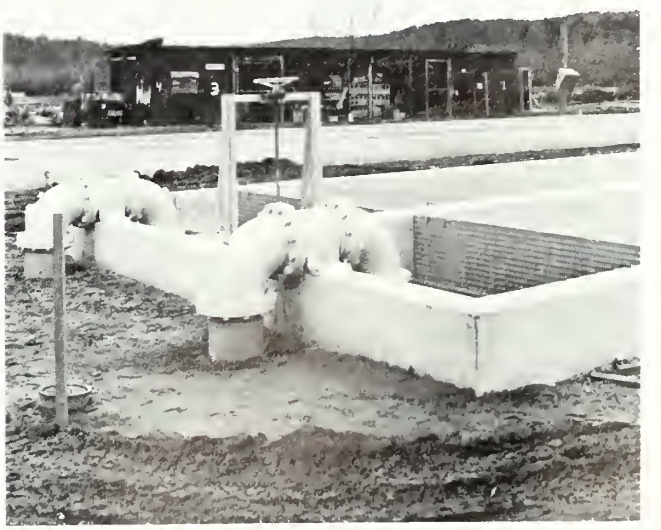
With an initial production capacity of half a million fish a year, the new Buford trout hatchery is scheduled to open the first of April. The $1.7 million facility—federal matching funds came to about $1 million—is designed to permit expansion to a million fish annually. Additional raceways and pumps are all that's required to double the production.

"This potential for expansion means Georgia should not have to construct any new trout facilities for many years to come," said Leon Kirkland, Chief of the Fisheries Section of the Department of Natural Resources.

Kirkland said the new hatchery will be able to produce some fish for stocking this year.

Located on a 34-acre tract on the west side of the Chattahoochee River about one and a half mile downstream from Buford Dam, it's the third trout hatchery in the State—there's one at Summerville and another at Lake Burton. The original proposal for the Buford Hatchery includes plans for a visitors' center, and land for it is available for possible construction later on.

New Buford trout hatchery sits on 34-acre site



Letters to the Editor

For some time now I have enjoyed *Outdoors in Georgia*. Quite often this gives me some vicarious experienee whieh I am always thinking will eome to reality sometime. In my opinion, the magazine has been well done and the art work is outstanding.

I am writing this letter to speeially mention the series eoneerning the historieal beginnings of our state.

I would like to suggest that at some time you might be interested in an artiele and photographs on the Salzburgers, who settled in what is now Effingham County, one year after Savannah was settled. Also, the Jerusalem Lutheran Church, loeated at the original site of the Salzburger settlement at Ebenezer on the Savannah River, is the oldest existing publie building in the state. There has been a continuous Lutheran eongregation sinee the early settlement and there is a eongregation now in this handmade briek ehureh whieh was eompleted in 1769.

Also, the Georgia Salzburger Soeiety has a museum at this site whieh has reeently been eompleted and is in operation and open to the publie.

Again, may I say I have enjoyed the magazine very mueh.

H. S. Shearouse
Springfield, GA

Onee again I am writing to express my sineere enjoyment of each month's *Outdoors in Georgia* and you ean imagine how I look forward to every issue! I am a student in the College of Veterinary Medieine here at Univ. of Ga. and you ean bet ever[illegible] spare (*rare!*) moment I find [illegible] outdoors.

[illegible], though, I thought you might [illegible]le to help me locate a receipe [illegible] *pepper jelly* (or preserves) and [illegible] *pepper jelly*. They might [illegible] properly described as [illegible] not sure. I have only heard of their existenee some time ago and I ean't remember where.

If you eould loeate those reeipes I'd be estatie!

Keep up the good work. A lot of us really do appreeiate it!

Yours sineerely,
Mark Goodwin

Hot Pepper Jelly
(Sometimes called Green Pepper Jelly)

3 large bell peppers (cored and seeded)
6 hot peppers (4 green and 2 red)
6 cups of sugar
1 6-oz. bottle of Certo
1½ cups vinegar

Chop peppers and mix with ¾ cup of vinegar. Then blend at high speed for 1 minute. Add the rest of the vinegar and the sugar. Bring to a rolling boil and cook for 1 minute. Remove from heat and add the Certo. Skim off the foam and pour into hot jars. Seal jars. This should make 6-7 ½ pints.

There now, but control your ecstasy.

Compliments on a more than usually fine magazine for Oetober, 1975 just arrived here beeause of a long postal strike in the eountry. *Outdoors in Georgia* is among the best of the magazines, always interesting, and obviously done with eare and affeetion by all eoneerned.

May I please get two more eopies of the Oetober, 1975 issue? I would greatly appreeiate it.

I was greatly taken by the historie team from 1184. Where in the devil did you dig up that partieular piece? Faseinating!

And I suppose we may publish it in our Spring issue? With thanks to *Outdoors in Georgia* of eourse.

The very best for you all, and compliments of the season which is almost upon us, and hope to see you at AACI in June. Some of us will be down there anyway.

Bill Ward, Editor
Wildlife Review
Victoria, B.C., Canada

For several years I have hunte[illegible] with members of my family one da[illegible] during the Christmas holidays a[illegible] have bought a lieense for that o[illegible] day's hunt. This year I did the sam[illegible] However, my father-in-law point[illegible] out to me that sinee I had reeent[illegible] moved out of the state on my jo[illegible] this year I should have purchas[illegible] an out-of-state lieense. I made [illegible] honest mistake in purehasing regul[illegible] lieense.

I have always obeyed all ga[illegible] laws and want to do what is rig[illegible] Please aeeept the enelosed mon[illegible] order amounting to the differen[illegible] between the lieense I purehased a[illegible] the lieense I should have purehas[illegible] for one day's hunt.

I am trying hard to get transfer[illegible] baek home to Georgia. But if I do[illegible] get a job baek in Georgia by n[illegible] Christmas, you may be assured t[illegible] I will purehase the right lieense n[illegible] year.

A hunter who wants to
go by the rules

Sportsman's Calendar

SMALL GAME

FOX—No closed season, statewide; [illegible] bag limit. Electronic calls may not be u[illegible]

BOBCAT—Sept. 15-Feb. 28, statew[illegible] No bag limit. Electronic calls may no[illegible] used.

GROUSE—Oct. 18-Feb. 28 statewide; [illegible] limit 3 daily.

OPOSSUM—Oct. 18-Feb. 28, in G[illegible] Zones I & IA, no bag limit. No cl[illegible] season in Game Zones II, III, IV [illegible] and VI, no bag limit.

QUAIL—Nov. 20-Feb. 28, statewide; [illegible] bag limit 12, (Possession 36)

RABBIT—Nov. 20-Feb. 28, statew[illegible] daily bag limit 10.

RACCOON—Oct. 18-Feb. 28 in C[illegible] Zones I and IA; daily bag limit I [illegible] closed season in Game Zones II, [illegible] IV, V and VI, no bag limit.

SQUIRREL—Sept. 15-Feb. 28 in [illegible] Zones I and IA; bag limit 10. Oct [illegible] Feb. 28 in Game Zones II, III, I[illegible] and VI, bag limit 10.

Coming Next Month...

Bass Tournaments. Alternately praised and cursed, tournaments and tournament fishermen are examined by Bill Hammack.

Lyman Hall, Patriot. Susan Wood reveals not a warrior, but a fiery political patriot, and a major influence on revolutionary Georgia.

The Country Store. Crammed with canned goods, hardware, and local color, "cross-roads" stores still exist in rural Georgia. Bill Morehead takes you on tour through existing history.

Chattahoochee Lakes. Looking for a fishing hole in West Georgia? Dick Davis points out three good ones in March *OIG*.

Our magazine wants to serve all Georgians. Why not subscribe today? If you are a criber—send us the name of a person you'd like to see get our magazine. We'll send urtesy copy of *Outdoors in Georgia* along with a note saying that you took the time to noughtful. That's a lot of mileage for a post card!

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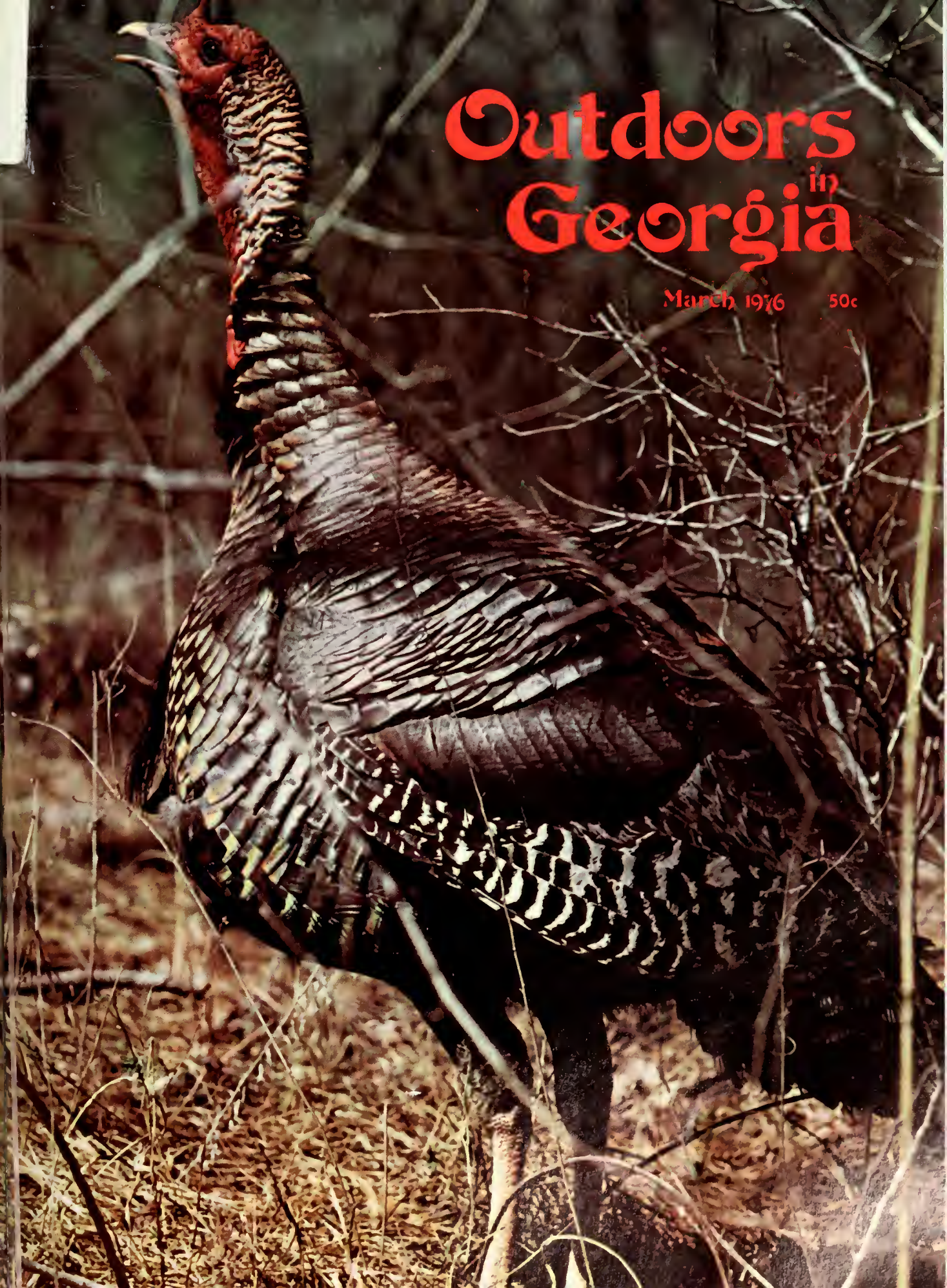

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FRONT COVER: His Majesty King Tam is captured in regal pose by Bob Busby.

BACK COVER: A shrimper's view af hard wark—but beautiful. From the camera af Jim Cauch.

MAGAZINE STAFF
Phone—656-5660

David Cronshaw · Editor-in-Chief
Bill Morehead . . . . . Editor

Aoron Poss . . . . . Managing Editor
Rebecca N. Morshall . . . . . Writer
Dick Dovis . . . . . Writer
Bill Hammock . . . . . Writer
Jingle Dovis . . . . . Writer
Susan Wood . . . . . Writer
Liz Carmichael Jones . . . Art Director
Bab Busby . . . . . Photo Editor
Edword Brock . . . . . Photographer
Cathy Cardarelli . . . . Photographer
Jim Couch . . . . . Photographer
Priscilla C. Powell . Circulatian Manager

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Editorial

ssues

is month *Outdoors in Georgia* examines
ament bass fishing, a relatively new con-
in freshwater angling and a very contro-
l topic among fishermen. The points of
oversy are many, including technical, bio-
l, regulatory and, of course, philosophical.
s story we look at the situation objectively,
ting the opinions of fishermen on both
of the issue, and including biological input
Leon Kirkland, Chief of Fisheries of the
and Fish Division. This treatment will
le relevant information on this important

portant issues, by their very importance,
rrounded by controversy, and there are
controversies in the field of natural re-
management. We plan to examine them
oming issues of *Outdoors in Georgia*. This,
l, is one of the highest and best uses of the
ine and is a service to our readers.

Opinions are based on information, and when the subject is a controversial one, the quality of information is important to the quality of opinions. Since so many natural resource related issues are in the public domain and are administered by public agencies such as DNR, public opinion on these issues is vitally important.

Information is what *OIG* is all about; it is our main product and service. If, by providing a forum for controversial issues which affect you, we can also provide you with information to help you develop well-based opinions, we will be fulfilling one of our most important goals.

David Crawshaw

Chattahoochee Lakes

THREE LESSER KNOW FISHING HOT SPOTS IN WESTERN GEORGIA

By Dick Davis

Photography by Bob Bus

brilliant sun was dancing on the kling blue waters as we headed on Bartlett's Ferry Lake. It was alendar-picture day with the ing foliage of the trees splashed ist the clear blue sky. We were ning a fishing tour of Bartlett's , Goat Rock Lake and Lake r.

any say these three reservoirs *he* places for great fishing. To them tell it, Bartlett's, Goat and Oliver are consistent bass ucers, be it largemouth taken in the coves, or white bass on spring spawning runs up tributary creeks and rivers.

Bartlett's Ferry, Goat Rock and Lake Oliver, all built and operated by Georgia Power Company, form a multiple-use water sports arena for the many who converge on the lakes to fish, boat, swim, water ski, camp and picnic each year. Virtually at Columbus' doorstep, Lake Oliver is the handiest of the three, but it is a short drive from the city to even the northernmost part of Bartlett's Ferry at the other end of the chain of lakes.

Lying north and south in a chain along the western border of the state, the three lakes are only a short hop for serious fishermen from many points in west central Georgia and east central Alabama. Anglers from both states have for many years staked fishing claims in these waters. Some dedicated anglers even travel from metro Atlanta and Macon to fish the bass and catfish havens of Bartlett's Ferry, Goat Rock and Oliver. Largemouth bass in the 4 to 8 pound range appear on many stringers, and one of the largest bass ever taken in west Georgia in the past two years was reportedly lifted from the waters of Bartlett's

Above: A view of one of many inviting coves where lunker-sized bass and bream abound.

Ferry. There are those who believ that somewhere in the watery depth of Bartlett's Ferry, Goat Rock an Oliver lurks a record largemouth c catfish.

In addition to largemouth ba and channel catfish, other sport fis found in the lakes are white bas bream, crappie, chain pickerel ar bowfin. There are also several vari ties of catfish, including white ar the bullhead. Usually thought of stream fish, some Flint River bas locally known as shoal bass, occ sionally turn up.

The white bass population is su stantial. Goat Rock lake furnish the original stock of white bass f many of Georgia's large reservoirs the past 25 years.

Bartlett's Ferry Lake, Goat Ro Lake and Lake Oliver are beau fully wrapped in their picturesq undulating shorelines. There a secluded coves and inlets where t water, woods and wildlife are that confront the fisherman, boa or camper. In these pristine are

Right: Bartlett's Ferry Lake is a little known but great place for bass fishermen.

Opposite: The headwaters of Lake Oliver below Goat Rock Dam is a good place for flycasting.

ast moving world seems far
ved. Forested to the shorclines,
ices these West Georgia reser-
resemble remote lakes of the
woods.

e three lakes were among the
major impoundments on the
ahoochee River and for a gen-
n have been a meeca for fisher-
boaters, pienickers and vaca-
s. Goat Rock Dam was built
12—64 years ago—and Bart-
Ferry Dam was ereeted in the
of America's depression years.
Bartlett's Fery Dam and
faeility generates more elee-
than any other single dam in
ia Power Company's hydro-
e system.

ter depths in Bartlett's Ferry
reach 96 feet at Boat Club
n. At the dam the depth ex-
to 115 feet. The lake eovers
acres and has 156 miles of
ine.

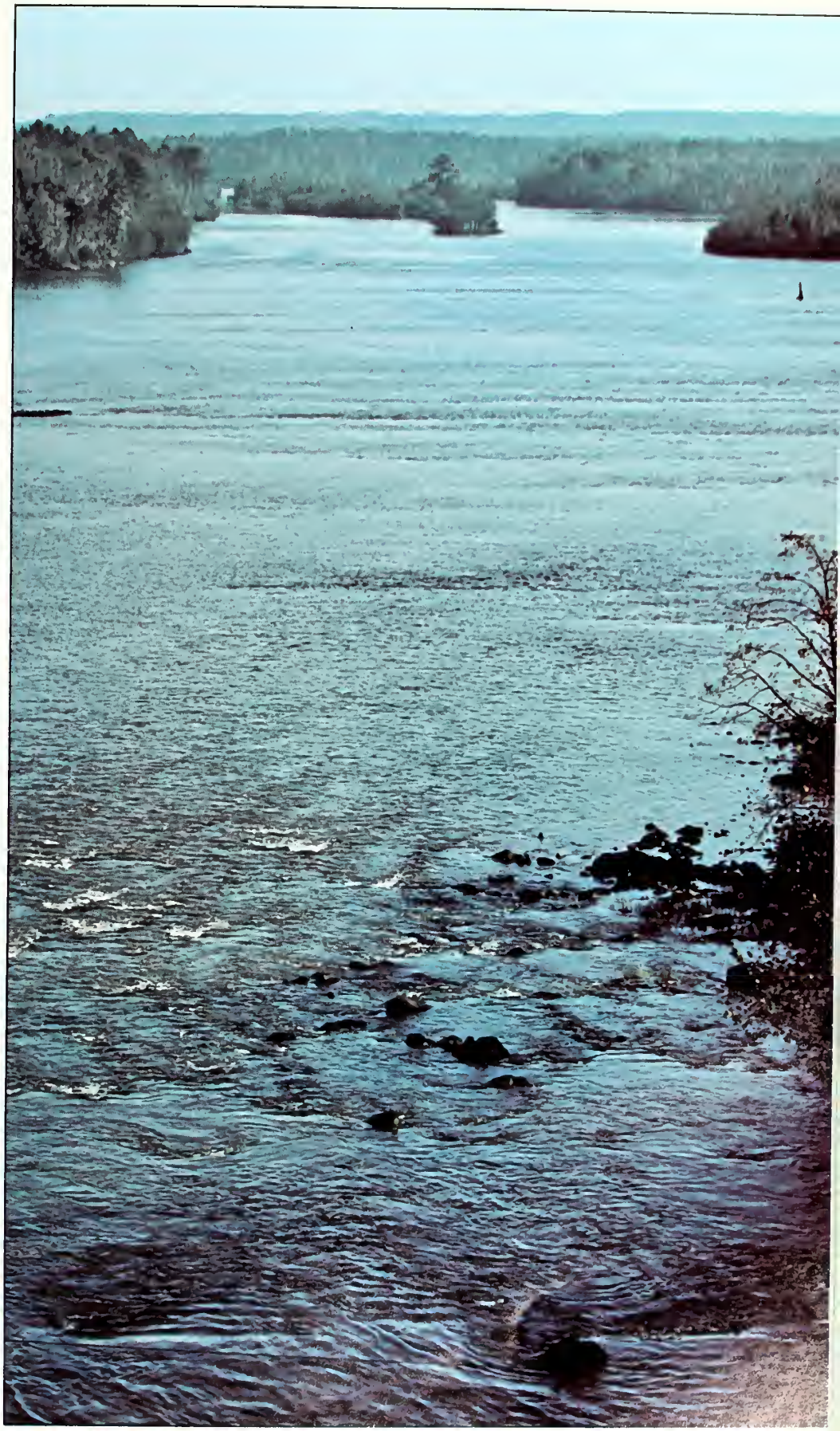
at Rock Lake, smallest of the
spreads over 1,000 aeres and
shorcline of 25½ miles.

e Oliver covers 2150 aeres
as 40 miles of shoreline.

sizable population of wood
inhabit swampy areas along
eshore. Georgia Power Com-
personnel have ereeted wood
nesting boxes in these areas
ave experienced good suceess
acting the ducks. Several gen-
is of dueks have now been
in the boxes.

at fishing is popular on these
As darkness envelopes the
a-Alabama border, many an-
ove out from the docks to the
inlets and on the open water.
rtlett's Ferry one popular spot
eath the bridge earrying Ala-
Highway 87 across the water
amp Halawakee.

erieneed bass anglers often fill
s ringers with white bass in the
aters of Lake Oliver just be-
Chattahoochee River rapids,
in the shadow of Goat Rock
April and May are prime
for boating the big whites in
rticular streteh of water. A
teehnique is to east across
rent and into the eddies with
s, small spoons and doll flies.



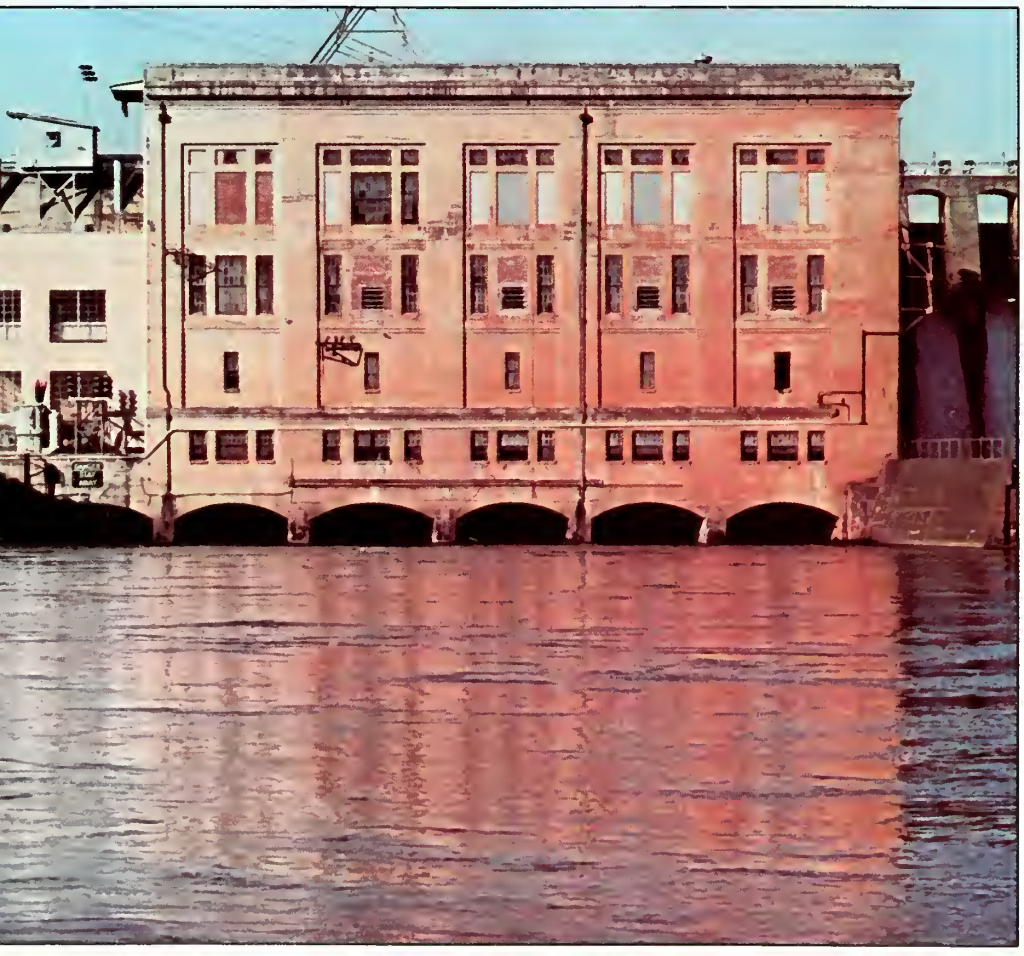
In this area below Goat Rock Dam, Georgia Power Company has set aside a half-mile stretch on the river's west side for public use and access. There are both boat launching and picnic areas.

There are 11 public and private marinas on the three lakes. On the Georgia shore of Bartlett's Ferry Lake there are Main Harbor Marina and Lickskillet Marina. On the Alabama shore are Halawakee Creek and Prince's Bridge Marinas, Cooks Landing Marina and Sonia Marina, all of which are public, and Willis' Marina, which is private.

Sandy Point Marina is on Goat Rock Lake. The City of Columbus operates a public marina on Lake Oliver, and Cotton's Marina is also open to the public. Green Island Hills Marina on Lake Oliver is operated for the membership.

Sailing is a popular sport on

Above: Fishing is not the only recreation, as shown by the sailboats.
Below: An imposing view of Goat Rock Dam.



waters of Bartlett's Ferry and L
Oliver, and on many days sails bil
in the breezes. The Columbus S
ing Club has scores of craft ir
fleet.

Georgia Power Company per
hunting in an area adjoining B
lett's Ferry Lake. It is in the u
part of the lake near Mountain
Creek. Hunting is permitted
game in season, but by written
mit only.

Anglers from Georgia and
bama have reciprocity of fishin
censes. Georgia fishing licenses a
the holder to fish anywhere in
lake provided the person is
fishing from the Alabama shor
is not in a boat tied to, or anch
to, the Alabama shore. Alab
fishing licenses are similarly hono

All in all, these three lakes
historically been good fishing s
and many anglers have "grown
with the lakes. Fishing is consi
and the size of fish is consid
good. As with any lake, succe
fishing secrets are often yielded
with experience, and novices ma
left out in the cold. A little
spent in the bait-shop bull ses
could be the most productive
for a first-timer on these waters.

Bill Morehead

by Betty Oliver Seabolt

GRASSROOTS STOREHOUSE

Drive down any country road far enough and you'll one, reposing at some crossroads like a fossil from ther time. The rough clapboards will probably be corated with hand-painted signs, and there will be certain undefined, even unkempt, look of portance about the place.

The building has been there awhile and, if it's not arded up, has much more going on inside than just siness. If it doesn't have a bulletin board with nmunity items on the wall, somebody in the store l *be* the bulletin board. People will be talking about vs (important things, not the Middle East stuff we on TV every night). You are liable to hear if rry sold his land, who the next sheriff will be, what ng thing suddenly left for Atlanta or whether rtha recovered from her operation.

There is history to these old country stores. They e from our beginnings in Georgia and have remained, mueh changed, throughout the years. The old re was the first meeting place for early communities l remains the storehouse of verbal traditions.

Likely the store is the humor center of the community. s the usual place for telling tales and, my, the stories t circulate in front of the blistering red stove:

When old Nip pointed that day, I told Charlie to let's shoot 'em on the ground. Charlie said, "Whadda you wanta do that fer?", and I said, "Charlie, me and you ain't got no birds in a week. Tomorrer's Thanksgivin' and boy, we need birds. I'll count to three and we'll both shoot." Charlie answered, "O.K., but I don't like it.'

"So I count to one, two, three and BLAM! Charlie lets fly. All you could see was smoke, wounded birds flutterin' and the rest of the covey buzzin' away. Charlie cuts a uneasy eye over to me and says, hopin' agin hope, "I didn't hear you shoot."

So I looks over to Charlie and says, "Of course you didn't hear me shoot. I'm a sportsman, you think I'm gonna bust some birds coveyed on the ground? Charlie, I seen many a low down thang in my time, but I ain't never seen nothin' like that there. You oughter be ashamed, wait 'til I tell every body."

Everybody was told and Charlie was ashamed every time he walked into the store.

The country store is the survivor of the trading post of pioneer days. The trading post was a center for raw business in rough-hewn times and, for all of its historic allure, existed because someone was taking something away from the land.

Most trading posts died as times changed. Those that evolved into country stores were different. They depended (and still depend) upon a healthy, vigorous land peopled with solid, striving souls. Stores like that are partners with the people, and land and the country.

Such an old store has a hundred keys to times gone by, a thousand whispering hints of who you are, and why. It is a place worth visiting.

The first thing you'll notice is the paper-thin doorsill, hourglassed by untold steps of bare and shod feet. Shaped and polished, the doorsill tells you that this is

a used place, a place of importance.

Long before there were space designers, the country store developed the "U" system of traffic. A customer strolled in along one leg of the "U", got what he needed, and ambled out along the other leg. Almost always, the conversational center—with its pot-bellied stove—was inside the "U" and away from traffic.

In one such store, the entrance leg of the "U" leads you past the candy counter, the soft drink box and canned goods. The meat and cheese counter occupies the bottom of the "U" and, passing along the other leg, you find hardware, feed and seed and, finally, the dry goods section. There is no way to go through this country store without seeing something you want.

Many of these old stores are living museums. One has a plowshare made in 1861, of local iron smelted at the old Cherokee Furnace in Polk County. It was shaped by a local blacksmith whose name is long since forgotten, but he left his hammer marks.

Another store has a leather mule collar of WW I vintage; a time when everybody knew mules, blacksmiths and livery stables. The old collar made it through the '20s and '30s without getting itself sold, and then a tractor helped assure it wasn't sold. Now it will never get sold—it will be inherited.

Still another store has a real, live, true, wooden licorice box, complete with a fresh stack of 10-inch twisted licorice sticks. It must have held a ton of licorice and marshmallow fish in its time. Every kid in the country no doubt memorized the "ST. LOUIS CANDY CO." name burned in its wooden side.

There's one old store in southwest Georgia with a fifty-gallon kerosene drum with a hand pump on top of it. It has probably been there fifty years—not a long time as country stores go, but quite a time as America has gone. Wonder how many kids ran down to the store for a gallon of "coal oil" and stoppered the can's snout with an Irish potato? The drum is a still-used

ftover from the time that coal oil was for lanterns and nterns lit the houses.

Maybe you're lucky enough to remember the old shioned gasoline pump of the 1930s with its 12-gallon ass tank on top. Gas looked a lot more interesting . . . ds used to watch as the orange, yellow or green soline was hand pumped. They stared, fascinated, as drained, bubbling and gurgling (all the while) into e tank of your car. There's such a pump beside an old untry store in the mountains of north Georgia. The ump still works, and sometimes the old codger who ns the place will put a couple of gallons from it to your car, if he feels like it.

Then there's the Victorian spindle that sits underneath e baroque cash register in a country store in middle eorgia. The spindle has been there four decades and olds a ream of rough-paper bills that haven't been ttled, and never will be. The debts were made by farm milies long gone, for farms that are now subdivisions.

The bills were unhonored, not by worthless debtors, but by a harmless looking insect called the boll weevil. The penciled figures on the coarse paper impaled on the spindle tell, as nothing else can, of the sharp terror of bankruptcy, exhausted farms and bent, reddened people. The spindle almost whispers with the vapid winds of defeat, telling tales of man and nature beaten down.

One note for $13.00 worth of seed corn is a fragment of one family's desperation to recover from too many one-row crops of cotton which pulled the guts out of the land. The rains came too late for the corn but in time to cut deep into the farms and deeper into the people. This paper on the spindle has rough edges and records more than a mere debt for seed corn—it records unsaid hopes which became unpaid notes, and both the people and the paper were gnawed by the silverfish of disuse. The grandchildren of these people now live more or less happily in San Mateo, Chicago or maybe Atlanta, but this spindle holds family fears that will die only when the last grandparent is gone.

The country store is as much a practical school as it is anything. There was a time when it was about the only place a rural youngster could be put in touch with the realities and fantasies outside of home. The half-said things you picked up at supper (when your mother and father talked in code) were fully explained the next day down at the store—with a couple of lies thrown in for good measure. It was up to you to separate the lies from the truth. Most of the time you didn't want to.

Country stores, caned chairs and cast iron stoves are made for talking about certain things. One of the surest-fire stories, guaranteed to draw wrinkled old tellers and excited youngsters, is the one about the "black painter":

> "Why, me and maw was just comin' across the creek up there after prayer meetin'. We was half ways cross when this thang begin to howl. I swar, hit sounded just like the dyin' scream of a woman. Maw was purt nigh scairt to death, and it had me abreathin', too. You ain't never heerd nothin' like it. It started up low and growly-like, and clum higher and higher til hit sounded just like a woman."

After that, comes a discussion of just what the "black painter" is (a cougar, a catamount, or maybe a mysterious black beast of the night), and where 'bouts in the swamp it lives. Sometimes the talkers will get around to the littany of who saw it where and when. Black painters have been blamed for everything from killing calves to messing up stills. Who needs Halloween when you can sit around the stove of an old country store and hear of the dreaded black painter?

The next time fate drives you along a country road and you see one of these stores, you owe it to yourself to drop in and look around. You may find something you want, but if you tarry long enough it's certain you'll find something you need—an acquaintance with a leftover piece of a simpler America.

Photo by Bob Busby

BASS TOURNAMENTS pros & cons

By Bill Hammaek

Tournament fishermen argue that the differenee between their sort of fishing and traditional angling is the competition involved. In competing for prizes—money or items of value—awarded in tournaments for the biggest catehes, tournament fishermen "fish against eaeh other," says Willie Shaw, president of the Georgia federation of B.A.S.S. (Bass Anglers Sportsman Soeiety) ehapters, a national tournament organization. "Fun-fishermen fish against the lake."

On the other hand, traditional anglers assert the differenee is deeper and more eomplex. "The fundamental values of fishing are destroyed by the pressures of fishing for money or for boats and other prizes worth money," says Paul Jones, TV editor of *The Atlanta Constitution*, an outdoorsman who has been a diseiple of Izaak Walton all his life. The dog-eat-dog eompetition in tournaments makes a moekery of the relaxation and joy of fishing. Competitors in their big bass boats with the monster motors roar into a quiet eove, slam out a few easts, and then roar out again. That spoils fishi g around there for everybody."

Willie Shaw replies: "I agree that some club fishe- men blow into a small eove, find no fish there, and th blow out. That's not right. The majority of tourname fishermen don't do that. In our tournaments, I use n bull horn. First time I see a fellow blow in somewhe wide open, I holler at him on my bull horn. If he tri it a seeond time, I run him out of the tournament. If eean't abide by our rules, he goes to the house."

Ray Seott of Montgomery, Ala., president of B.A.S. says "We're aware of the reputation in the past of t heavy-throttle bass boat joekey. But 99 pereent of o folks are out there to eateh fish, not to ereate a distur anee. We feel we're guests on a lake. We try to be t sort of guests who get invitations to eome baek."

Ed Dodd, ereator of the internationally-enjoyed ou door life eomie strip, "Mark Trail," says, "As long tournaments don't hurt fishing, and as long as oth

le want to take part in them, I see no harm in them. hey're not for me. They change the sport from a rely, pleasant activity to a sort of frantic pursuit seems slightly commercial. When I go fishing, I to contemplate the trees and drink in the light on ater. I like to match my skill against the capability e fish. And I'd rather try to outwit it on its own s, without the help of gadgets, like depth sounders temperature gauges and all the other gear tourna- fishermen load up their bass boats with. I don't to go heliing all over the water, hunting the fish. nave enough rat raees in our workaway lives. But matter of individual attitude. If a person enjoys iament fishing with all its pressures, he's entitled to se that brand of happiness, as long as his pursuit n't harm mine and that of others who, like me, the relaxation and quiet of traditional fishing."

on Kirkland, chief of the Fisheries Seetion of gia's Department of Natural Resources and one of eading fishery authorities in the United States, says, ar we've found nothing to indicate that tournament ig harms traditional fishing, as far as pressure on the is eoneerned. Of all the tournaments we have ed so far, in the state and nationwide, available data indicate that the average annual tournament eateh does not exeeed two or three percent of the fish in a reservoir. In 171 large reservoirs over the country, the average fish population has been found to be 8.9 pounds per aere. That's conservative for Georgia, which is blessed with abundant fish in a vast impoundment aereage. There are about 350,000 acres in major reservoirs over Georgia. Small impoundments like farm ponds make up another 250,000 aeres. Major warm water streams provide another 60,000 acres of fishing. That's a total of 660,000 acres—4700 square miles."

Let's look at one major reservoir in Georgia, Lake Sinclair, which eovers about 16,000 aeres. Estimating about 10 pounds of fish per acre, Lake Sinclair supports around 160,000 pounds of fish. Figures indicate tournaments average about 200 pounds of catch a year. That's 1.2 percent of Sinclair's fish.

"Loeal bass clubs probably account for most of the tournament fishing pressure," Kirkland observed. "So what you're talking about is mainly the fishing done by loeal anglers, who are going fishing anyhow. But taking it a step further, looking at national tournaments, data eolleeted thus far indieate that professional fishermen catch bass at a higher rate than the average fisher. How-

ie weigh-in, the foeal point of bass rnament competition. It is here t reputations, prizes and money won or lost.

Photos by Aaron Pass

The check-out, all tournament competitors must pass this inspection point on their way to the starting line. Rules vary, but alcoholic beverages, firearms or live bait are commonly prohibited.

ever, only a small pereentage eateh the limit of bass, whieh for these tournaments has been established at 10 fish. Therefore, decreased ercel limits would have little or no effect on the bass eatch—that has been the position of this Department for some time. But reeent studies indieate that minimum size limits would be an effective factor in these tournaments."

For several years, the state of Georgia has had in effeet a minimum size of 12 ineches for bass. This limit applies to all bass anglers, tournament fishermen ineluded. Kirkland says he feels this size limit is perfeetly adequate. Why? He points out that "Basieally, most reservoirs in Georgia have surpluses of forage fish sueh as shad and stunted bream. The bream population in many lakes is so dense the fish are prevented from maintaining a good growth rate. Bass less than 12 inches long are espeeially effeetive as predators on these smaller fish. Larger fish normally take larger forage fish—bigger bream, erappie, shad—and if the bass is big enough, it may take eatchable-size panfish. Bass that are 12 ineches or less play a major role in reducing the numbers of fish where they tend to crowd. Sinee a bass will eat a forage fish about one-third its length, a 12-inch bass will eat a bream up to four ineches long."

An additional biologieal factor in the deeision to set a 12-ineh minimum is that bass normally do not reproduee until they are in the neighborhood of 10 or 12 ineches. Kirkland said, "Our experienee in state hateheries indicates that these smaller fish tend to be mo suecessful in raising groups of young bass. We've fou too, that in the course of a season, several thousand these less-than-12-ineh fish ean be returned to the la by fishermen. And recent studies diselose that hooki mortality on bass is a negligible faetor, if the fish i properly handled and immediately released. The lon you hold a bass, the more stress it sustains. The l says you must release a fish immediately. Possession i a live well is eonsidered holding. If a fisherman ho fish that are undersized or if he's holding over the lin he's in trouble. Lately national tournaments have be emphasizing release of the fish. We've looked at situation, and we don't feel that any regulation we co establish would increase the probability of bass be returned alive.

As he regards the general eoneept of tournament fi ing, Kirkland said, "Regulations must be based on sou biological data and prineiples. Although many fishern don't agree with the eoneept of tournament fishing, responsibility is to proteet and enhanee the fishing sources of the state, as well as to provide all fishern an opportunity to use these resources with a minim of regulatory interferenee. Our eurrent regulations ap of eourse to our situation here in Georgia. This does mean that other states, with more limited water sources, would not be justified in further regulations tournaments. But as a fisherman and as an offi

Photos by Aaron Pass

Coming in, all competitors must return for weigh-in by a specified time. Late arrivals get penalty points.

:ged with proteeting and enhaneing our state's fishing curees, I feel that our present safeguards are ade- e. However, if future studies—and studies go on ne time—reveal that new regulations based on sound ogieal data would be benefieial, they'll be promptly olished."

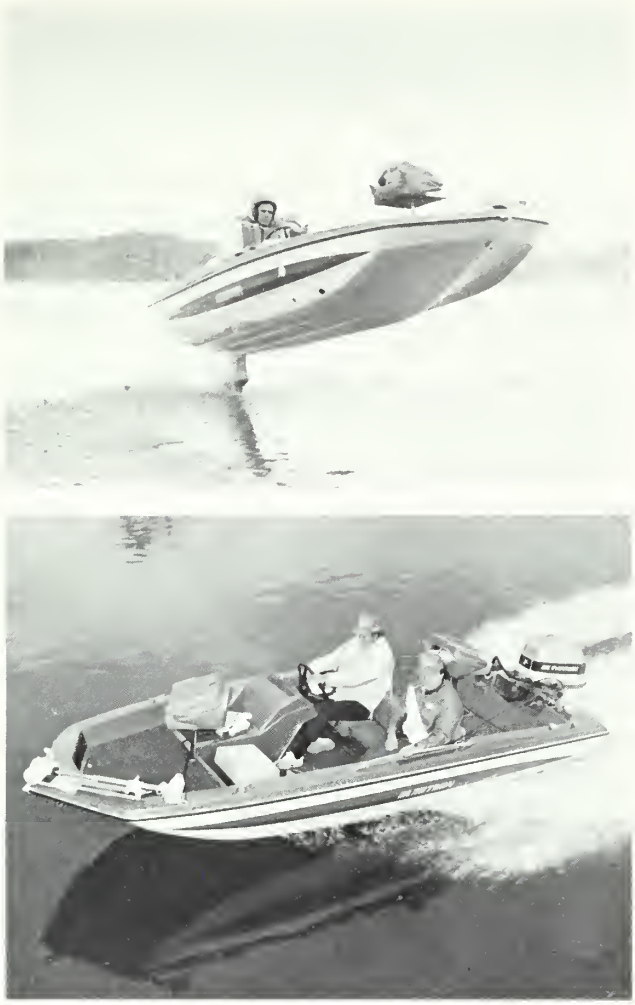
irkland observed that one aspeet of tournament ng whieh may go against the grain of many tradi- al fishermen is the eommereialization—the money awards won by eontestants, the promotion of bait, and equipment by top professional fishermen. But e pointed out, "Commereial aetivities have been g on legitimately on publie lands and publie waters long time. One example is the grazing in western s, and another is our Georgia shrimping industry. eommereial fishing with shad nets and trot lines. motorboat raees on our lakes. Many people tend to ciate big motors with tournament fishermen, but powerhouses are used more and more by all fish- en, and probably most of all by water skiiers. We've eomplaints about the diseourtesy of some tourna- t fishermen, but we've had them about the laek of ideration displayed by other people on the water— tional fishermen and boaters and skiers. Courtesy, her in a tournament fisherman or a traditional fish- in or a water-skier, is an attitude that eannot be lated."

illie Shaw says, "We know we're in the publie eye, so maybe some of us try a little harder to be thoughtful of others. As thoughtful of others as we want them to be thoughtful of us. When my $5,000 bass boat is tied up at a doek, it makes me mad if somebody blows by and the wake serapes my boat against the doek. Most guys feel the same way. One thing about wakes—if a boat flies by, it's making only a little wake. But throttle it baek to about 10 miles an hour and the wake will turn you over."

Shaw's $5,000 rig is elose to tops among bass boats. A few of them run to around $6,500. In sueh a bass boat, you may find two depth finders, two aerated live wells, an eleetrie anehor, surfaee temperature gauge, an eleetrie trolling motor and bilge pumps, along with running lights. The bass boat motor is equipped with a "kill-switeh," a sort of dead-man's throttle, so if a pilot falls overboard or is otherwise rendered unable to handle the boat, the motor stops. Every tournament fisherman must wear a float-type life preserver.

"We pioneered many safety innovations," says Ray Seott. "I understand that the 1972 Coast Guard ruling requiring a personal flotation deviee for each person on a boat eame in part from our 1970 requirement for these life preservers. We pioneered the kill switeh and operational bilge pumps on fishing boats."

The Bass Anglers Sportsman Soeiety is the oldest of several national bass tournament fishing organizations in the U.S. At last eount there were 250,000 members



These publicity photos distributed by a boat manufacturer give an excellent example of the diversity of views on tournament fisherman. Top is the image he has in anti-tournament circles, but the bottom view is probably more what he thinks of himself.

across the nation. There are about 11,000 in Georgia, less than two percent of the state's nearly 650,000 fishers.

Dr. Robert E. Reinert, head of the Georgia Cooperative Fisheries Research Unit at the University of Georgia, said, "Recent technological advances have made the bass fisherman a more efficient angler, but there hasn't been a corresponding scientific jump in our knowledge of fish. We know fishing pressure will continue to increase in Georgia, and we know some of the pressure will come from more knowledgeable, better-equipped, more efficient fishermen. However, no available data indicate that tournaments in Georgia hurt a large lake's bass population. Personally, as a fisherman, I don't like to compete with another fisherman. I like to feel it's just between the fish and me. But no matter how you feel personally about the philosophy of bass tournaments, it's clear that tournament fishing has generated a lot of interest in fishing. The difference of opinion is stirring up questions about conservation and water quality and research, and that's all to the good."

Dr. Richard O. Anderson, leader of the Misso Cooperative Fishery Research Unit at the University Missouri, said, "The major factor precipitating the f mation of national bass tournament organizations w the economic gain that could accrue. Individuals a companies like bait manufacturers, boat and mo builders and others engaged in the boating and fishi sectors were quick to perceive the economic possibiliti As for the tournaments themselves, most statistics sh that the tournament bass catch is not much differe from the bass catch as a whole. One possibility that c be looked into in big bass tournaments is the effect th keeping the bass alive might have. Tournament judg could award bonus points for live fish."

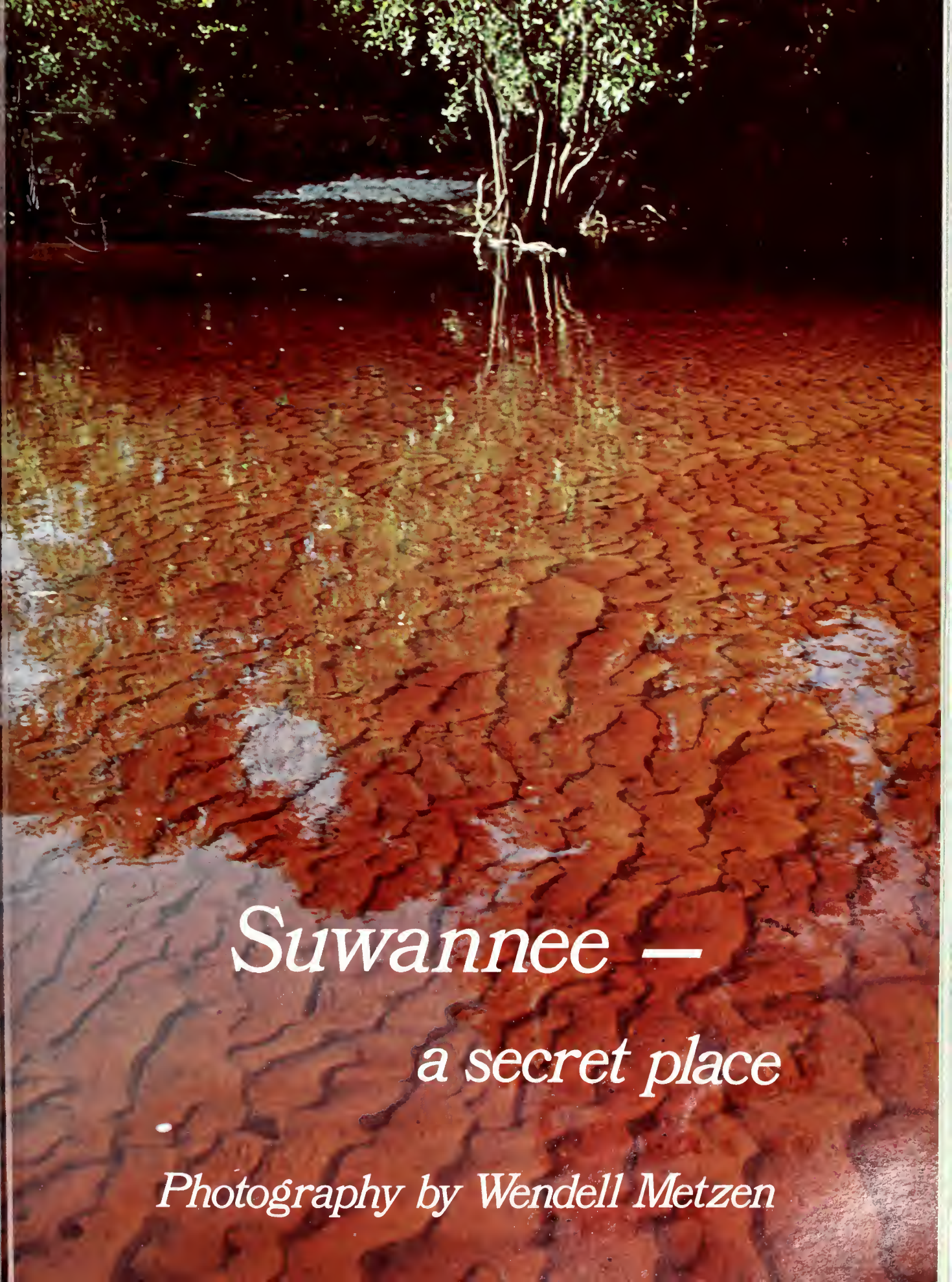
Willie Shaw says: "In our big tournaments, we retu better than 75 percent of the bass."

What motivates an angler to become a tourname fisher? "The competition," answers Willie Sha "You're competing against every other fisherman in t tournament. And you learn how to become a bet fisherman from fishing with and against some of t best anglers in the country. There's the fellowship a meeting new people with the same interest."

These pluses for tournament fishing cited by Sha don't add up for the Sports Fishing Institute, a Washin ton, D.C.-based, non-profit organization devoted to t improvement of sport fishing. The Institute holds th the traditional values of fishing "are increasingly need for relaxation from the tensions of a more and mo stressful society. In this context, the deliberate prom tion of competition among anglers is evidently a d structive influence upon the fundamental value to s ciety of recreational fishing." About three years ago, t Institute's board of directors adopted a resolution vo ing their "active concern with respect to possible ha to public fishing that may result from the rapid, larg unregulated growth of the highly competitive comm cialized fishing tournaments . . ."

Willie Shaw replies: "We know that the best way relax is to do something you enjoy. I enjoy fishing, a I enjoy competition. Putting them together makes double happy. Competition is a natural human ur I played football in school, baseball and basketball, a I ran track. Played softball in the Atlanta City Leag In all sports, a participant tries to show how good he she is, tries to improve, tries to win. Same way w fishing. I love fishing—I'm a fun-fisherman as well a tournament fisherman. My wife says it looks as if I fishing every weekend. Whether I do or not, I want In tournament fishing, there's the pride in being a go competitor. If I can win a tournament, you can bet be proud to say I won it."

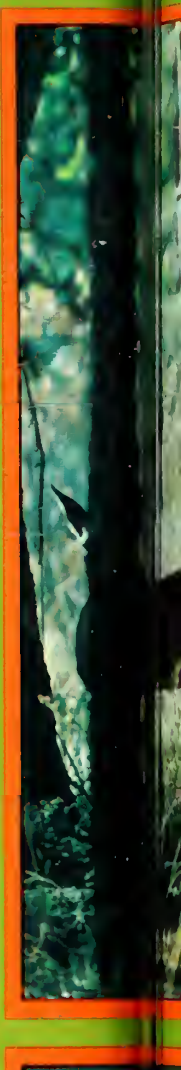
Within himself, Willie Shaw has resolved the conf between tournament fishing and traditional angling. I that peace doesn't reign in the world of fishing, for long as fishers are the individualists they are, the phil ophy of traditional angling will continue to clash w that of tournament fishing.



Suwannee —

a secret place

Photography by Wendell Metzen



The Suwannee is a river of mystery. Born in the wilderness of Georgia's Okefenokee Swamp, the dark waters meander across the Florida border and then curve gently westward toward the Gulf of Mexico, touched only occasionally by the hand of civilization.

The Suwannee has been proposed for wild and scenic river status, which would protect its secret places and special qualities for the future. River of myth, of legend, of light and beauty, the Suwannee offers a pathway to the past and a chance to retain the illusive mysteries of a wilderness river for all the years to come.

Jingle Davis

Georgia's changing Shrimp Indust

GROWING

ese angels sail shoreward at sunset
wrapped in their shining white hulls.
h trails her long veils of shrimpnet
d each wears her halo of gulls. ©

by Jingle Davis reprinted from *Five Six*, June 25, 1972. Copyright
by Graded Press.

ams...

PAINS

By Jingle Davis

Photography by Jim Couch

The poem presents a romanticized picture of a hard-working shrimpboat, perhaps, but a distant string of trawlers silhouetted against a red rising sun or suspended in air on a morning mist are an idyllic sight indeed.

While the men who own and operate Georgia's fleet of about 400 trawlers may agree their "girls" look angelic, they'll quickly tell you they work like the devil aboard their pretty boats as they harvest the main cash crop of Georgia's coastal waters.

They rise before the first gray ghost of morning has touched the sky, sometimes on fair summer days when the seas are calm mirrors and the breezes are gentle and warm. Other mornings, they leave the docks as nor'easters are turning the sounds into rough slabs of uneut slate and near-freezing rain is rattling harshly in the rigging of their boats.

A shrimper can tell you what the coldest feeling in the world is. It's a pair of numb-clumsy bare hands, sorting the catch from the day's last drag on a wind-raked afterdeck some frigid winter afternoon, with salty water stinging a dozen tiny knuckle cuts like a school of jellyfish.

Georgia shrimpers take the weather in stride, though. They've seen the sea in all her moods of fog and wind, storm and rain, ever since the first power boat lowered a shrimp net in the state's coastal waters. That historic moment probably occurred in 1914.

Pete R. Kittles, Sr., who lives in Valona—a lovely little riverfront settlement in McIntosh County—will tell you the weather hasn't changed much through the years, but Georgia's multi-million dollar shrimping industry has.

It was probably Kittles' uncle who brought in the first commercial catch of shrimp from Georgia waters.

"My uncle bought the net and doors in Brunswick from a man who got them from somebody in Florida. He took the net out in his oyster boat, which was powered in those days by a naptha engine. That first drag my uncle made, he filled up the boat with shrimp."

The boatload of shrimp posed a bit of a problem for Kittle's uncle; a problem akin to that of the dog who finally catches the car he's chasing.

"He didn't really know what to do with all those shrimp."

The uncle apparently decided what was good enough for oysters was good enough for shrimp. He brought the catch back to his oyster cannery, boiled, peeled and canned them, hand-soldering the can lids shut.

That first shrimping venture was not a notable financial success. While oyster boats continued to bring in a few baskets of shrimp during the oystering off-seasons, nobody really made money shrimping until after the second world war, when the flash-freezing process was developed by seafood pioneers on the Georgia coast. This probably did more to revolutionize the industry and stabilize the price of shrimp than any other single factor.

Back in the 1940's, Kittles—who captained his own trawlers for more than 20 years—was getting $5 for a hundred-pound box of good-sized shrimp.

Comparing that to today's dockside prices (roughly $3 a pound for large, 26-30 count shrimp), it might seem Georgia shrimpers are doing well for themselves.

But if the price of shrimp has climbed, so have the shrimpers' operating costs. Boats and nets are bigger and more expensive. (A brand-new fiberglass trawler, fully rigged, can run in the neighborhood of $150,000.) Fuel prices have skyrocketed. Insurance costs are up. Dock space is at a premium. Even ice is selling for better than $3 a block.

The Shrimpers' expenses have accelerated steadily, while shrimp prices fluctuate almost as whimsically as the capricious weather.

David L. Harrington, a marine fisheries specialist with the University of Georgia's Marine Extension Center in Brunswick, said dock prices paid for Georgia shrimp are directly related to the volume of shrimp caught in the clear blue waters of the Gulf of Mexico.

"The shrimp production in the little town of Freeport, Texas, equals the production of the entire Georgia coast. This year, their catch was down about 10 per cent, or about a million pounds. If the Gulf shrimpers have a smaller catch, then Georgia shrimpers get higher prices for their product. It's the old equation of supply and demand."

Trawler captains today face competition unknown in the industry's earlier days. They vie with imports from other states and foreign countries, and also compete on home territory with all the other boats seeking shrimp in the state's coastal waters.

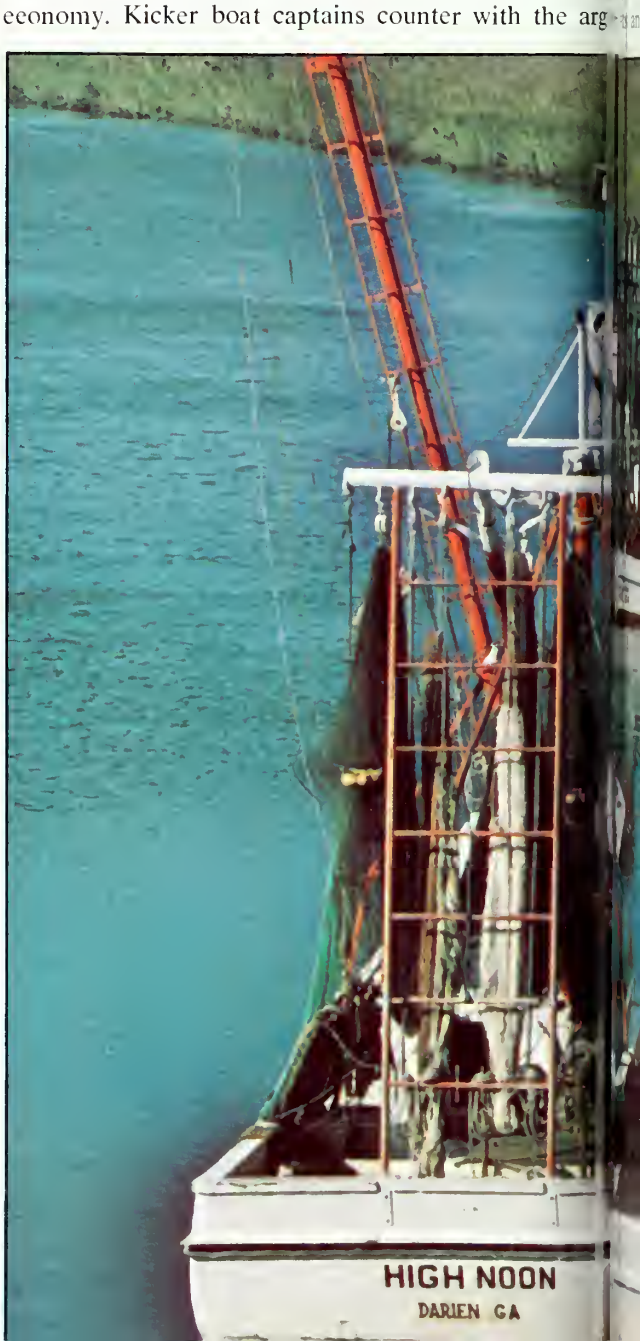
The Georgia Department of Natural Resources (DNR) issued more than 2,000 commercial fishing licenses for the 1975-76 season. About 400 went to trawlers, with the majority being purchased by owners of small, outboard motorboats.

The captains of these kicker boats, called "weekend warriors" by trawler captains, usually work at other jobs during the week and pick up extra income b shrimping on weekends or for a few weeks in early Sep tember when the sounds first open.

In addition to the boats which catch shrimp fc human consumption, there are licensed bait deale (more than 100 in Georgia) and sport fishermen wh pull small nets to catch their own bait shrimp. With th flotilla of multi-sized, multi-interest boats all shrimpir the waters of Georgia's relatively short coastline, th competition between shrimpers is sometimes less tha amiable.

Maximizing Georgia's shrimp resources for the benef of everyone is DNR's job, and it isn't an enviable tas Various interest groups all have their own ideas abo shrimp management, and they usually aren't reluctant have their ideas heard.

Trawler captains say laws and regulations should gi them first consideration, as they depend on shrimpi for a livelihood and contribute substantially to the state economy. Kicker boat captains counter with the arg



that shrimp belong to everyone and say they have uch right to make money shrimping as the big ers. Bait dealers, allowed to market their catch only t, and sport fishermen can shrimp in waters closed ats which catch the product for human consump-

is irritates some of the trawler captains who claim ctivities of bait dealers and sport fishermen are ful to the shrimp resource.

ney go in the little creeks and inlets and catch le shrimp," one trawler captain charged. "Bait are allowed to shrimp at night, too."

other trawler captain said he has nothing against ealers who operate within the law, but claims some calers blackmarket shrimp for human consump- hus taking unfair (and illegal) advantage of the stringent laws governing commercial boats which "eating" shrimp.

er Kittles has another opinion. "Those little bait and kicker boats aren't any more problem to the trawlers than a mosquito biting an elephant."

Kittles said he believes Georgia's shrimp resources could best be protected by placing an absolute ban on the taking of roe shrimp in coastal waters between April 1 and June 1, the prime roe shrimp season.

David H. G. Gould, Supervisor of Coastal Fisheries for DNR, pointed out that the problems of the shrimping industry today are complex and probably not soluble by any one method.

"There are so many factors influencing shrimp production. Environmental changes caused by humans, habitat alteration and loss, and, of course, the natural factors such as bad weather—all of these things can cause decreases in shrimp production."

In reference to the roe shrimp, Gould pointed out that the season is closed through the month of May. "This provides as much protection, under our present jurisdiction, as we are able to give to that first big wave of spawners." He also offered a scientific report which seemed to indicate surprisingly little relationship be-

tween the number of roe shrimp which actually spawn and the resulting shrimp crops.

"The researchers found the abundance of shrimp for any given year is apparently more dependent on natural factors which influence the young shrimps' survival. Of course, some spawners have to be left to do the job, but scientists don't believe Georgia's present shrimping activities reduce spawning stock to dangerously low levels."

The scientists' findings seem reasonable when one considers that a single female shrimp may lay up to a million eggs each time she spawns, possibly several times in a single season.

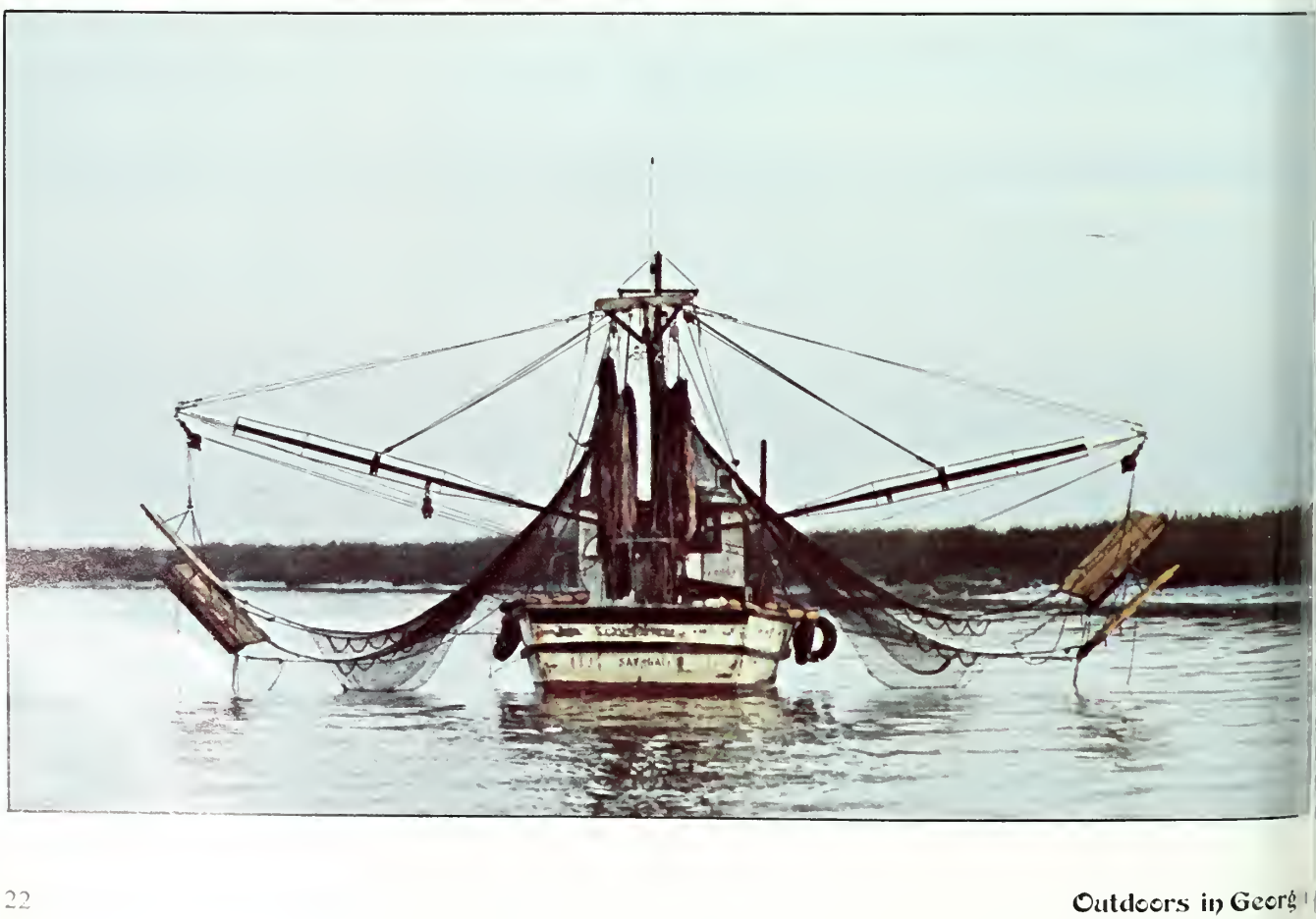
Gould, however, did say he felt more stringent regulations governing the taking of roe shrimp would b needed in coming years. "I'm looking forward to the da when the state's jurisdiction is extended beyond th present three-mile limit. Then we could regulate ro shrimping more effectively."

The changing industry and resulting conflicts o opinion led to the formation of the Coastal Fisherie Advisory Commission in 1973. CFAC is a group whic includes commercial shrimpers, bait dealers, sport fishe men, crabbers and seafood processors. CFAC has a ready proved to be an effective tool for allowing th diverse interests to express themselves in meaningfu ways.

For example, when bait dealers complained tha shrimp catches were dying in their boat's live bait tank on hot summer days, CFAC recommended that ba fishermen be allowed to shrimp at night during th hottest months, a recommendation adopted by th legislature in 1975. Another recently enacted law, whic closed Georgia's smaller sounds to shrimping and regu lated the open dates on six other sounds, was als adopted on CFAC's recommendation.

Other groups, such as the Georgia Fishermen's Co-op are working to try to solve some of the industry's prob lems. They've helped to reduce insurance rates and fu costs for members' boats and are planning outlet store in inland cities where co-op members will retail fres coastal seafoods.

Georgia's shrimping industry is still young enough t suffer growing pains. Although it may never be problem free, the future looks brighter all the time.



Lyman Hall

By Susan Wood

t his year of our bicentennial celebration, we should o take a look at our beginning as a nation. And g so, let us think of the patriots of Georgia, those , independent-minded men who brought the Revo- ry cause to the minds of Georgians.

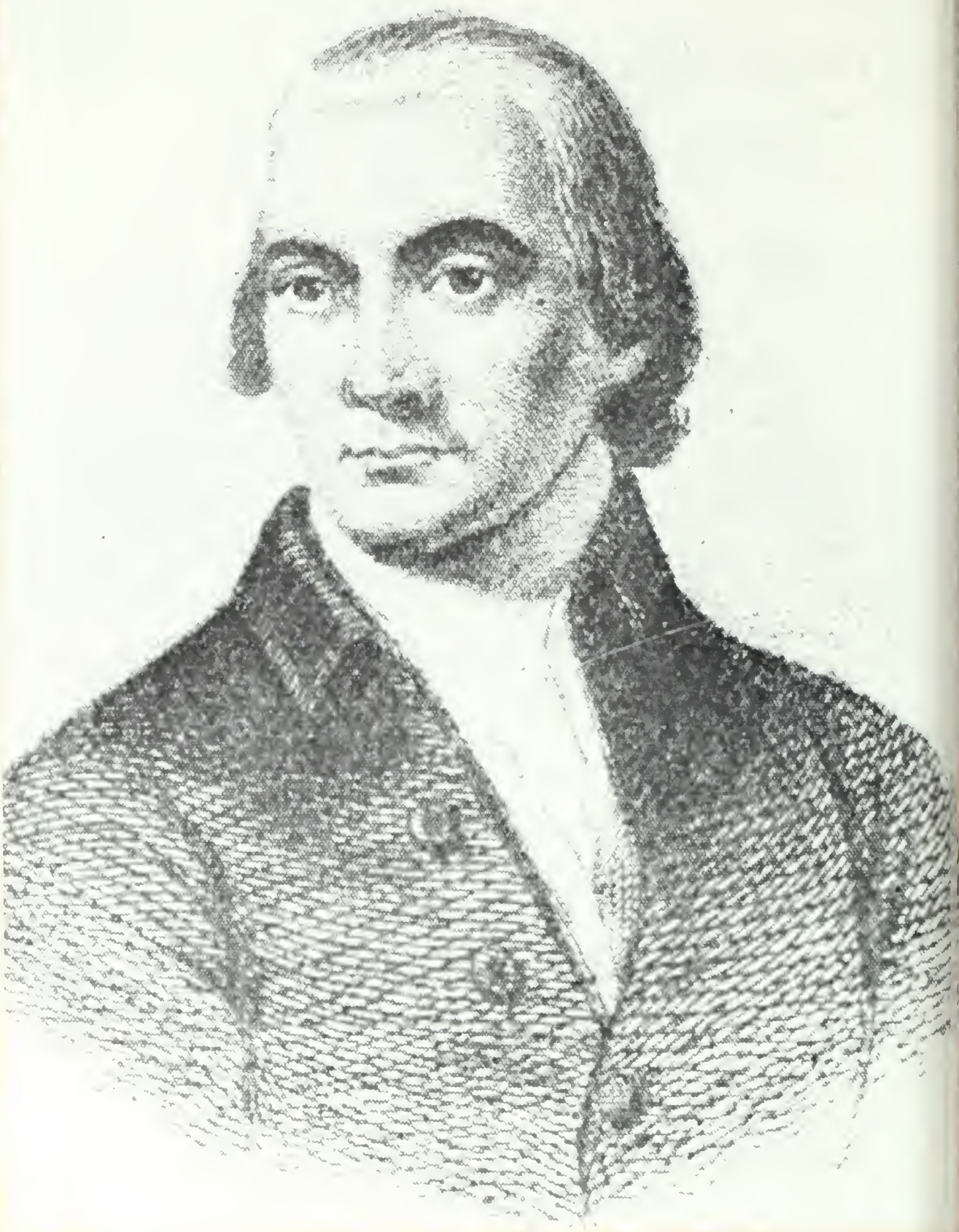
r Georgia was the youngest and most loyal of the nies in the years preceding 1776. Were it not for ermination of patriots like Lyman Hall, Georgia ikely have remained loyal to England throughout volution.

ll-respected resident of what was later to become County, Lyman Hall, with his determined spirit quent persuasiveness, encouraged others of Mid- l Sunbury to take up the cause of independence uch of the rest of Georgia remained loyal to n.

Born in Wallingford, Connecticut, on April 12, 1724, Lyman Hall graduated from Yale College in 1747 and then began to study theology. He was ordained as a minister in September, 1749, and served Connecticut churches for two years before deciding to study medicine.

Dr. Hall practiced in Connecticut for several years before moving to South Carolina in the late 1750s. Records show that he applied for land in Georgia in 1760 and received a land grant the following year in the Midway settlement, where he became a Justice of the Peace.

No one is certain how long Dr. Hall stayed in Georgia at the time. However, it is known that Dr. Hall and his wife, Mary Osborne Hall, did live in South Carolina, west of Charleston, in the mid-1760s, and birth records



v that their son John was born in Charleston in 5.

/hile in South Carolina, Dr. Hall was renowned for nedicines, as this notice in the Charleston newspaper 762 indicates: "(Lyman Hall) . . . has also to sell a l assortment of family-medicines, perfuming waters, other medicines, and continues to make and sell a ous cosmetic water for the ladies which may also be at Mr. John Milner's, in Church Street, Charles-n."

lthough Lyman Hall has traditionally been asso-d with the Puritan settlement at Dorchester, South olina, recent research has shown that he was not a of this society until he came to Georgia.

1758 these Puritans had been granted slightly over 00 acres of a swampy Georgia area which was to alled the Midway settlement. Later they established own of Sunbury not far away on the Midway River. they built their summer homes, and the town of ury soon became a thriving port which rivaled nnah in importance. Midway and Sunbury were in a. was known as St. John's Parish, an area which was to become a center of revolutionary spirit in gia.

1769 Lyman Hall and his family again moved to gia, settling on a small plantation a few miles north e Midway Church. Unfortunately the Puritan set- had built their plantations along the edges of the present swamps, so Dr. Hall kept quite busy treat- iis neighbors for malaria and other such diseases. use of this devoted service, he soon became widely vn in the Midway community.

. Hall's competence and dedication, combined with olite, easy-going manner, gained for him the con- ce and respect of the people of St. John's Parish. was that when he became one of the first to pro- his belief in the Revolutionary movement, the residents of the parish soon joined his cause.

ie Royal Governor of Georgia, James Wright, was is time probably the most loyal of the many Loyal- n Georgia, and it was through his influence that the ny was not represented in the First Continental gress. When news of the official stand of the colony ied them, the people of St. John's Parish were st literally "up in arms," for they had become con- d with the spirit of independence. No one in the had a greater reputation for courage, wisdom and etence or a more revolutionary spirit than Lyman so he emerged as the leader of the movement in arish.

ose patriotic people of St. John's Parish tried to convention of their own to send delegates to the d Continental Congress, but their efforts failed. nstead, they sent their own delegate, Dr. Lyman to that Continental Congress of May, 1775.

a later tribute to this independent-minded area, ame Liberty County was given to St. John's Parish when the counties were created by the first state Constitution in 1777.

Until Georgia was officially represented in the Congress, Dr. Hall did not vote on questions which were to be decided by a vote of the rebelling colonies, this being unfair to those colonies which strongly supported independence. But he did fully participate in debates, all the while declaring that the colony of Georgia would follow the example of St. John's Parish. When this occurred, in the summer of 1775, Lyman Hall continued to serve as delegate.

In 1776, Lyman Hall signed the Declaration of Independence for the state of Georgia along with his good friend Button Gwinnett, also of the Midway community, and George Walton. It was for this single act that most Georgians remember Lyman Hall.

After the fall of Savannah in December, 1778, when his homes and lands were either confiscated or destroyed by the British, Dr. Hall moved his family north to South Carolina until the fall of Charleston in May, 1780 and then elsewhere. Upon returning to Georgia after the British departed in July, 1782, Dr. Hall chose Savannah as his home and began again to practice medicine. In January, 1783, as a tribute to this Revolutionary hero, the Georgia House of Assembly elected Lyman Hall governor.

Hall's administration as governor lasted only one year, but in that time he devoted his energies to such matters as establishing the land office and selling confiscated property, settling the public debt, making peace with neighboring Florida, adjusting the northern boundary of Georgia, establishing courts and schools, and making treaties with surrounding Indian tribes.

One of his most notable achievements came in July, 1783. In a speech sent to the General Assembly, Governor Hall made a recommendation that the state set aside a grant of land for the endowment of a state-supported institution of higher learning. This led to the chartering in 1785 of the University of Georgia.

Following his term as governor, Dr. Hall resumed his practice until 1790 when he sold his Midway property and moved to Burke County, having purchased a plantation on Shell Bluff on the Savannah River. Shortly thereafter, on October 19, 1790, Hall died.

He was buried in a brick vault on a grassy bluff overlooking the river. In 1848 Hall's remains were moved to Augusta and placed, along with those of George Walton, beneath a monument honoring the Georgia signers of the Declaration of Independence.

No one today knows exactly how Lyman Hall looked since there was no painting of him done during his lifetime. And Lyman Hall has no descendants as his only son died, without issue, shortly after Hall himself died. The state, however, has perpetuated his name by giving it to one of our counties.

Quiet in appearance, mild in temperament, dignified in demeanor, Lyman Hall was, indeed, one of our greatest Revolutionary figures. Dr. Lyman Hall . . . a name Georgians should remember.

te y, Georgia Department of Archives and History.

Skidaway State Park

:becca N. Marshall

il last summer, Georgians g Savannah could stay either motel or at a private camp- d. But in June 1975 Skidaway State Park opened. For those vant to see Savannah but don't o stay downtown, the park of- happy compromise. It's only a nute drive south of the city. 's far enough away to offer solitude and the longed-for to "get away from it all."

park's seclusion doesn't mean t's isolated, though. There's to do, for both campers and e visitors, especially those in- d in nature.

ers can easily explore forest ns of the park, where live oak, live and red bay thrive, along nany other trees and plants only in coastal areas. Arma-, deer, and raccoons are just a the numerous animals and hat inhabit the forests.

pers who investigate the fresh- onds and salt marshes in the re likely to see birds from one two rookeries on the island. rookeries, where the birds id breed, are home to many peculiar to the coast; for ex- little blue heron, green snowy and great egrets,

At Skidaway Island State Park, you can relax in the sun, or just sit and enjoy the refreshing ocean breeze.

black-crowned and yellow-crowne night herons, and wood ibis.

Acres of unspoiled marshlanc surround the park. These level area of sediment covered by marsh gra are a vital part of the coastal en vironment. The majority of all com mercial fish and shellfish, as well a sport fish, spend part of their live here.

Park visitors can go into th marsh directly from the park, eithe on their own or as part of an or ganized nature hike. Here they ca explore a variety of grasses an birds and small animals that inhab the area. Many different kinds c crab, like wharf, sand fiddler, purpl marsh, and blue, live in the marsh along with oysters, clams, an ribbed mussels. Several varieties c snails and insects make their hom here. And the ever-present mars hen freely roams the area.

The University of Georgia Marine Extension Center and th Skidaway Institute of Oceanograph both are nearby. These facilities in vestigate and study the marshes an other parts of the coastal environ ment. Their displays and demonstra tions offer visitors a chance to de velop an over-all view of the coas and its creatures.

r those who want to swim or lie
: sun, the beach isn't far away.
enthusiastic freshwater anglers
ive saltwater fishing a try. Ac-
in the rivers and estuaries is
year-round, and more am-
s fishermen may want to test
skills offshore. A near-by boat
and pier are available to park
rs.
d, of course, there's Savannah.
historic waterfront, renovated
town areas, the squares—each
s own story to tell. In this bi-
nnial year, a visit to Savannah
special interest, since the city
probably the most important
of Revolutionary wartime ac-
in Georgia. Campers at Skid-
Park are just a short drive
nost of the historic sites in and
d the city.
daway Island State Park is
but its heritage is old. The
es, the forests, and the beaches
urround it; Savannah, one of
ite's oldest cities; Skidaway, an
nd well-established barrier is-
all offer an easy and interesting
) discover the history of Geor-
oast. The park is a good place
in this discovery.

Savannah is just a short trip from the park. A visit to the city is of special interest during the Bicentennial, since Savannah was an important center of Revolutionary activity in Georgia.

Letters to the Editor

As many others have done recently I wish to indicate my concern and disappointment with what seems to be a growing trend of *Outdoors in Georgia* to deviate from being a sportsmen's magazine.

In the January issue, for instance, of 32 pages only 6 were devoted to true hunting or fishing interests.

If we sportsmen wanted to know about "Mr. Fortson's" Capitol building or the development of Negro churches in Georgia, we can read history books. Netmaking is truly an art and important to our commercial fishing—but how many sport fishermen use nets? The tide tables are great for the folks along Georgia's limited coastline, but would do the vast majority of Georgia's fishermen little good.

Next month's issue doesn't look too promising either. At least two articles mentioned are totally unrelated and I'll have to wait to read "Less Waste with Waste" to form an opinion.

What truly disappointed me most was that no mention is made in January of any of the pending game law changes currently under consideration in the legislature. We sportsmen in Georgia have and continue to foot much of bill (through hunting and fishing licenses) for the good hunting and fishing in Georgia and are entitled to *know* what's taking place to change the laws concerning these outdoor sports.

Outdoors in Georgia could be a forum for sportsmen to air their views if the Department of Natural Resources will cooperate.

J. A. Durham
Acworth, GA

* * *

I am the painting contractor who did most of the work on the State Capitol when "Mr. Ben" was in charge. My men refinished his offices, the House, the Senate and I guess we painted about every room including the Governor's office and all the outside trim too.

I even burned up a new sport coat with "Mr. Ben's" roman candles in the battle of the starlings. I have a vested interest in that great building. I am sure that many people still in the Capitol will remember my foreman Mr. Daws (now retired) who took a personal interest and pride in everything he did there.

The article in the January issue of *Outdoors in Georgia* about our Capitol was of interest to me personally. There are those who do not think that an article of this type should be presented in this magazine. Let me remind them that the Parks and Historic Sites Division is a part of the Georgia Department of Natural Resources.

Hunting and fishing are among the great loves of my life and articles on these subjects are of particular interest to me. However, I believe that this magazine should be for all Georgians.

Keep up the good work.

Harry L. Hataway
Atlanta, GA

* * *

In reference to the January issue of *Outdoors in Georgia.*

Almost half of this issue has nothing at all to do with the subject of the outdoors or anything to do with the outdoors.

I want to register my complaint, along with many others, about too many articles not concerning the subjects for which most of us originally subscribed for *Outdoors in Georgia.*

Harold K. Jones
Newnan, GA

* * *

As a subscriber to your magazine since 1967, I am amazed how you and your staff keep coming up with better issues than the previous ones. If every sportsman in Georgia could or would read your articles, they would be more aware of what an outstanding job the game management personnel and other job-related people do for the sportsman in Georgia. Keep up the good work.

During the past several months I have had a copy of my monthly *Outdoors in Georgia* on my desk and several friends have picked it up just to glance through it and end up reading it in its entirety. Some have even torn out the envelope so they could subscribe to it.

Sidney D. Ross
Demorest, GA

Outdoors in Georgia is the publication of the Department of Natural Resources and as such it must reflect the full range of issues and topics affecting the Department.

We fully realize that hunters and fishermen are among our most loyal readers. It is our intention to continue to feature worthy articles dealing with hunting, fishing and the workings of the Game and Fish Division, but not to the exclusion of stories on other facets of DNR.

* * *

I sure do enjoy *Outdoors in Georgia* every month. I live on a farm here in Lowndes County where we are getting a few deer now, but they seem to raise pretty slowly. What makes it worse, some sorry people shoot them at night, so the deer here make a sad picture.

I wish we could get more game wardens, and slap heavier fines and even prison confinement on the ones doing this night hunting.

I have been reading about gazelles, and I'd like to know how these antelope would get along in Lowndes County. They look just like small deer and I understand they raise every 50 days. If that's so, they might have a chance to get started before they all get shot out. I think they might do real good here in south Georgia and would make some fine hunting.

Floyd E. Hardee
Valdosta, GA

Thank you for your comments on legal and illegal hunting; good wildlife protection is very important to our management programs.

Our Game and Fish Division is not too enthusiastic about gazelles, however. We feel that rather than try to rely on the importation of new "exotic" species, we can best serve sportsmen by good management of the native wildlife species we already have.

Coming Next Month...

A hallmark of editing and publishing is that readers are very interested in other readers' comments. According to many surveys, the most widely read section of any publication is the "letters to the editor" section.

We know that public participation enlivens and provides direction. Less than two months ago we conducted a readership survey. We questioned nearly a thousand randomly selected subscribers.

Within a month we received more than a 60 percent response and the results are still coming on. Next month, Susan Wood reports on the survey. We intend to publish all the data we received, including the not-so-complimentary. We received hundreds of written comments, so many in fact that we have created a new section ("Outdoor Comments") to run monthly until every written comment has been published.

We thank the readers we surveyed for the incredibly high response. We promised you we would pay attention to your response, and next month you will get the first installment of that promise in print.

Outdoors in Georgia

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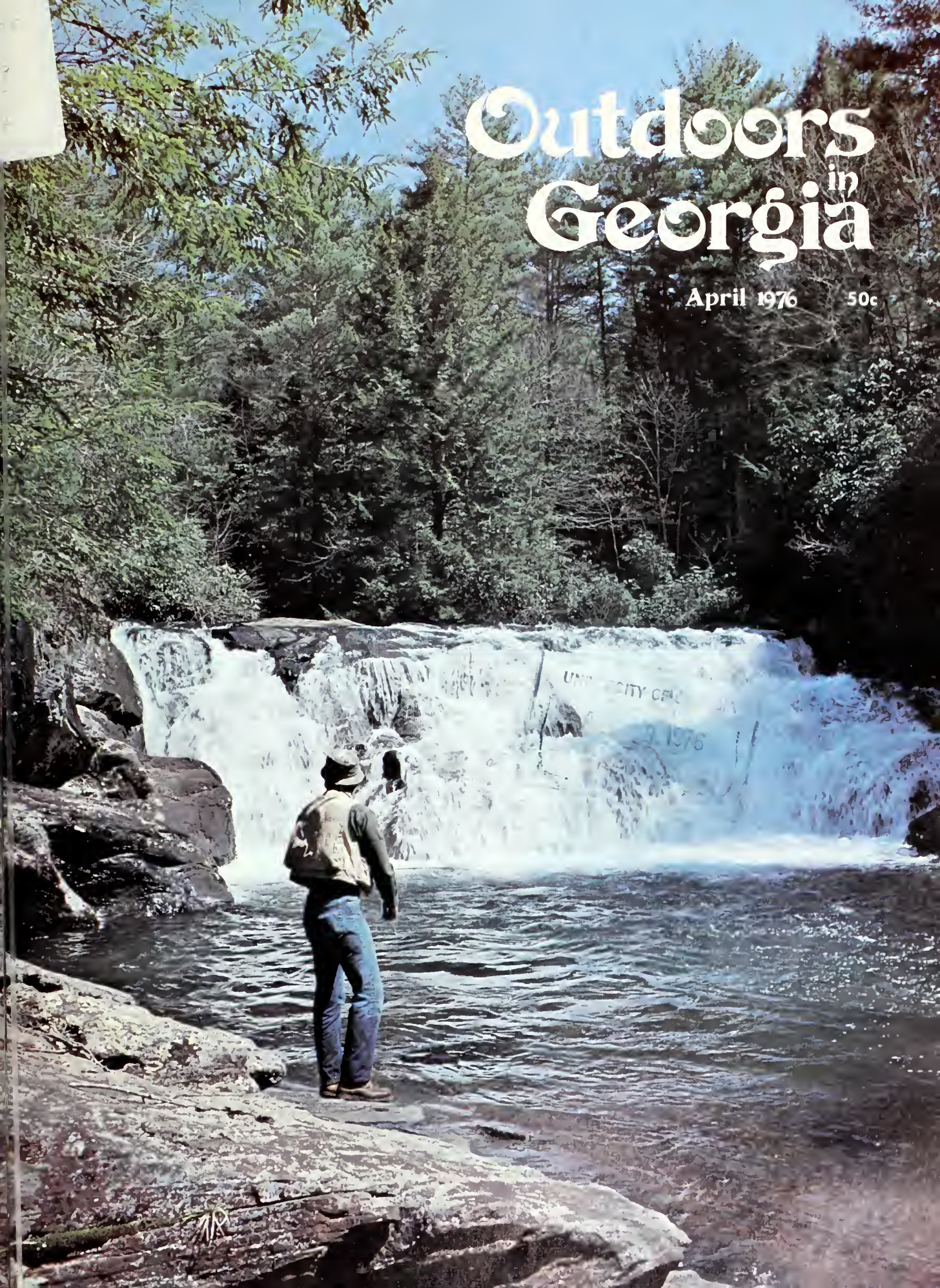

Outdoors in Georgia

April 1976 50c

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Outdoors in Georgia

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MAGAZINE STAFF
Phane—656-5660

David Cranshaw · Editar-in-Chief
Bill Marehead . . . . . Editar

Aaran Pass . . . . . Managing Editar
Rebecca N. Marshall . . . . . Writer
Dick Davis . . . . . Writer
Bill Hammack . . . . . Writer
Jingle Davis . . . . . Writer
Susan Waad . . . . . Writer

Liz Carmichael Janes . . . Art Directar
Bab Busby . . . . . Phata Editar
Edward Brack . . . . . Phatagrapher
Cathy Cardarelli . . . . Phatagrapher
Jim Cauch . . . . . Phatagrapher
Priscilla C. Pawell . Circulatian Manager

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Coastal Protection

The best news we've heard recently came from the Georgia Supreme Court in late February. That venerable body ruled that the state's coastal marshlands and beaches belong to the people of Georgia, to be held in trust for the people by the state.

This decision not only gives all Georgians rights of access, but also means our marshes and beaches will be preserved and protected for all future generations.

Georgia's coastal wetlands and beaches are not meant for the exclusive use of private interests, but for the benefit and enjoyment of everyone.

Attorney General Arthur K. Bolton, who called the case the most important the Supreme Court has decided since he has been attorney general, said the court's ruling means the people of Georgia can lose their right to the state's marshlands and beaches "only if they decide to give it away."

It isn't likely that Georgians will ever decide to surrender this priceless privilege.

David Crenshaw

Carter's Lake

A new north Georgia lake

By Aaron Pass

Photos by the Author

Georgia fishermen may never again have i so good, with two new reservoirs going hot once. West Point Reservoir on the Chattaho chee and Carter's Reservoir on the Coosawatt River were both recently impounded by the U Army Corps of Engineers and are about to ma big waves in angling circles.

New reservoirs are attractive to fisherm not only because of their novelty and the char for some new scenery, but also for the fantas fishing. Typically when a reservoir is first fill there are relatively few fish in a great deal habitat. These fish spawn, and the populati

nds rapidly to occupy the available habitat. lers cash in on these expanding popula- s, and fishing is great. Eventually the ex- sion reaches its limit, and the reservoir cs. Then the population may decline slightly start a slow downward trend as the reservoir ures.

'est Point is sure to get its share of attention is close to several major population centers. er's, on the other hand, may feel less intense sure. The dam is located on the Coosawat- River and is about twelve miles south of sworth—just off U.S. 411. Ramp construc- is underway, but all the planned ramps are et usable.

shing in Carter's Lake got off to a rather tional start last year when anglers ran into y concentrations of redeye bass, *Micro- us coosae*. The redeye is normally a stream small by bass standards, averaging 9 to 12 es. They were plentiful, eager to strike, and fishermen really cleaned up.

m Primmer, fisheries biologist with the e and Fish Division of DNR, investigated situation. According to Primmer, "The the- s that as the lake filled, the redeyes came with the water level from the bed of the . They went to the shoreline seeking food cover, where they encountered fishermen. rest is fish stories.

Due to the time of the year, many of the may have attempted to spawn near the line," says Primmer. "We don't know how ssful these attempts will be; we'll just have ait and see."

Why were the fish so abundant? "Obviously were a lot of redeye in the Coosawattee. river has historically been a good redeye n," says Primmer, "but the large number sh in the new lake was a bit surprising."

ll the redeyes adapt to the lake and be- a dependable sport fishery? It's doubtful, ding to Primmer. "The redeye is a stream nt. This does not preclude his being in a . but all things being equal he will prefer tream environment. We can reasonably t one of two things to happen in Carter's e. One, this spring's redeye phenomenon a singular occurrence and will not be ted. Two, assuming a successful spawn,

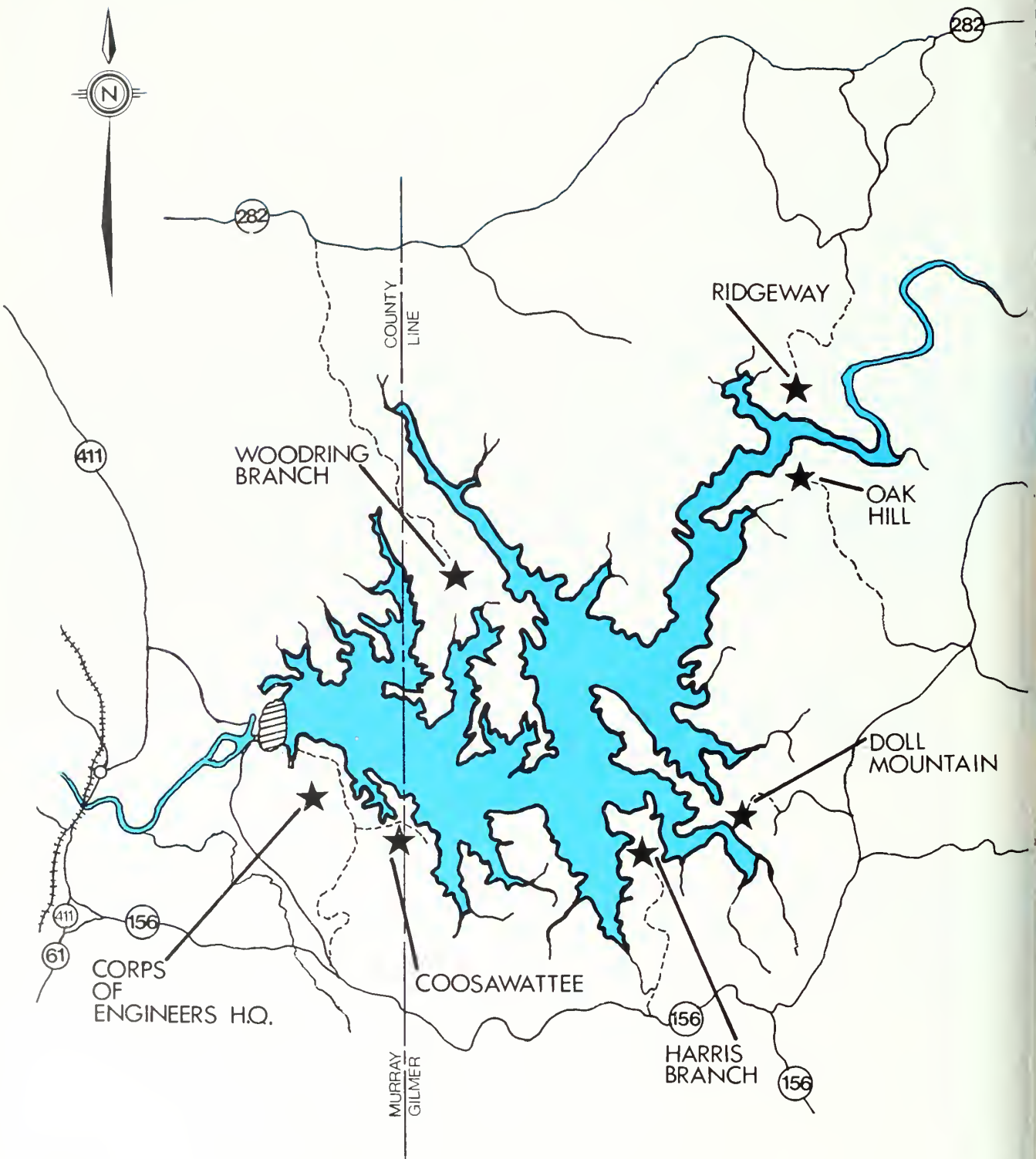
Small but scrappy, a redeye bass puts up a good fight on light tackle. These small bass were abundant last year when Carter's Lake was filling.

the redeyes may be around for several years but will steadily decrease in significance."

What does the future hold for Carter's Reservoir and the fisherman? "It's difficult to predict a fishery in a new lake, but we can make some reasonable guesses," says Primmer. "Carter's will greatly resemble Blue Ridge in both appearance and water type. Both lakes are deep, with steep banks and relatively infertile water. Both the production and the species of fish should be similar.

"Carter's should have both largemouth and

Carter's Lake

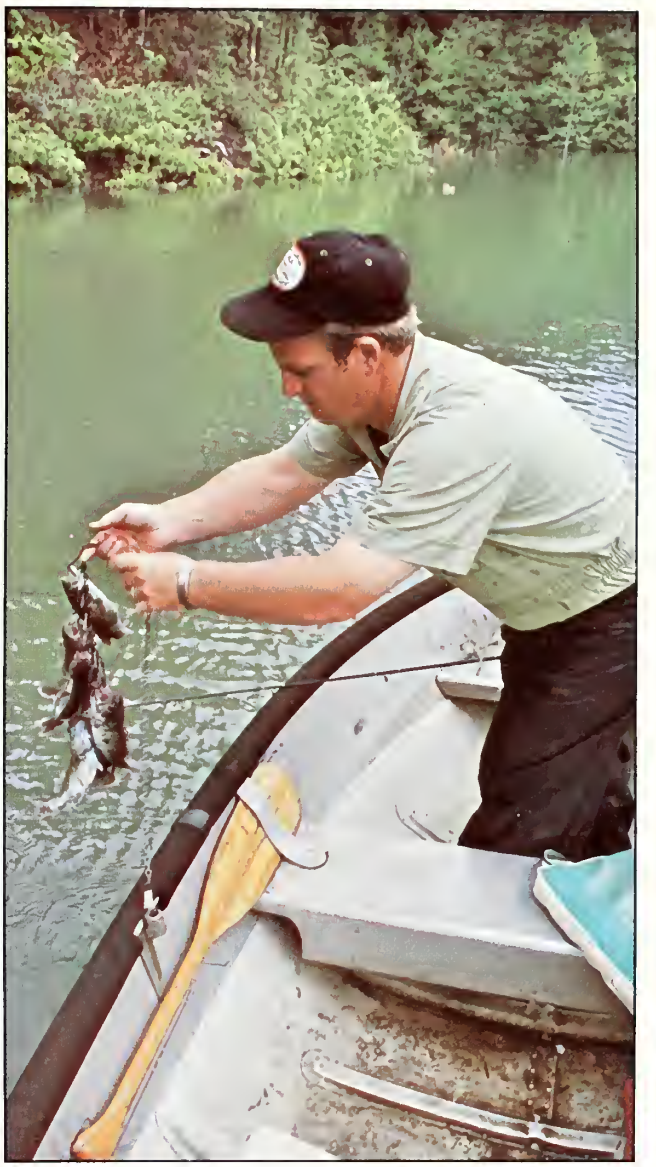


ted bass as the major glamor fishery. As for llmouth, we'll have to wait and see. They e stocked in the Coosawattee River and may blish in the reservoir."

Valleye were also stocked in the river and become established. Primmer feels that ter's has a good potential for this species. he bream species will have a number of esentatives. Bluegill, redbreast, green sun- redear, warmouth and rock bass are all ent in the watershed, and only time will which will be important to anglers.

s in Blue Ridge, channel and flathead cat- should be present and offer good fishing.

ccording to Primmer, Carter's will prob- go through the hot phase of very pro- ive fishing during the first few years, then out, decrease and level off. "Largemouth are normally THE fish during the hot



phase, but my guess is that spotted bass will eventually become the predominant black bass at Carter's."

Carter's Lake is the typically beautiful North Georgia reservoir but also suffers from the typical North Georgia problem of infertility. The waters are low in dissolved nutrients which stimulate the growth of plankton, the base of the food chain.

Those crystal clear waters over which writers wax so eloquently are often not very productive in terms of aquatic life. Not much can be done about this in a large reservoir except to accept it as a natural limitation. Once access is improved, Carter's promises to be a very attractive recreational lake and an interesting fishery in Northwest Georgia.

Steer a Course for...

Boating On the Saf

ide

By Bill Hammack

Photography by Bob Busby

Georgia's lakes and streams and coast provide all sorts of opportunities for fishing, fun and frolicking on the water, but there's a shadow out there where danger lurks—the shadow of ignorance of boating safety.

Boating accidents in the state doubled over the past five years, jumping from 46 in 1971 to 93 last year. Deaths stayed about the same—18 in 1971 and 19 last year, but injuries rose from 32 in 1971 to 54 in 1975, an increase of 69 percent.

The trend, tragically, continues upward.

Reason for this sad climb? About 300,000 boats cruise Georgia waters, and they're increasing at the rate of about five percent a year. Nationwide figures indicate each boat is handled by an average of between three and four persons, which means there are about a million boat operators in Georgia right now and the number is growing every week. The traffic jam is thickening, and many of the folks in it don't know the first thing about handling a boat safely.

This is what concerns Bob Baker, the Department of Natural Resources' Boating Law Administrator and creator and supervisor of the state's outdoor education program. "I don't believe one percent of our boat accidents fall in the 'unavoidable' category," he says. "If boat operators knew what to do, and did what they're supposed to do, our boating accidents would be cut down to practically nothing."

Baker wants to help boat handlers learn what to do, but he says, "Our problem is that we can't get older folks to participate in training courses. We've tried. We're still trying. We're trying harder. Young people—teenagers and thereabouts—give us no trouble. Many of them have learned do's and don't's in boating safety courses. The dangerous age in boating, proved by accident figures, is between 25 and 35. Let's take a look at a person in that age bracket who has just invested several thousand dollars in a boat, motor and trailer. He thinks he's ready to go. He's highly insulted if you suggest he needs some safety instruction. He bristles and says he can drive a car, can't he? Sure he can, but there's no relationship between driving a car and handling a boat. For example, an automobile's direction is controlled by the wheels in front. You control a powerboat's direction with the rudder in the back."

If Baker continues to be unsuccessful in educating adult boat operators, no matter how hard he beats the drums for boating safety through training, he points out there are two alternatives, neither of which he likes. One involves issuing operators' licenses. "I'm opposed to that,"

In the Department of Natural Resources' boating safety courses, students learn the rules in classroom training, then they get out on the water to demonstrate how well they have learned their lessons about required equipment, rules of the road, nautical signposts, boat handling, trailering the boat, and other basic requirements for safety afloat.

Above: An instructor teaches the safe way to handle a john boat. Boating safety is one of the courses in DNR's Outdoor Education Program.

he says. "We're already over-regulated. On the other hand, if people don't wake up and start practicing boating safety, we don't have much choice. If we have to make licenses mandatory, the boat operators themselves will have been the ones who forced us to do it."

Second alternative is zoning. "I'm opposed to that, too," says Baker. "For example, one arm of a lake would be zoned just for skiers. You couldn't fish there. On another area of the lake, zoned for fishing only, you couldn't ski. Reason I don't like the zoning idea is that the Corps of Engineers takes public money to build an impoundment, and then some members of the public are told that they can't fish, or ski, or otherwise enjoy their own favorite water sports in a particular area of public waters. Here again, if we have to go this route, we'll have been forced into it by the people on the water. We've had cases where skiers came so close to anchored fishermen that the fishermen became enraged and actually shot at the skiers. If incidents like this continue, we have no alternative but to separate fishermen and skiers. There's a lot of pressure on us to zone right now, and it may be around the corner. Zoning is the lesser of two evils. But suppose we do have to zone, then we find out it doesn't work satisfactorily. No question but that we'd have to go to operators' licenses."

To avert these eventualities, Baker currently is training boating safety instructors to deliver the word to the general public in everything from a five-minute talk to a 10 or 12 hour course. Presently, nearly all boating instruction by the state is given in high schools. About 3,000 students took advantage of the course last year, 6,500 are taking part in the

program this year and Baker has asked for funds to reach 10,000 students next year. In this comprehensive 30-hour boating course, students receive classroom training, then are required to get out on the water to demonstrate whether they can perform what they have been taught. For this phase of the training, Georgia provides boats that nobody else in the world (as far as we know) can boast of—dual-control power runabouts. Baker came up with the idea a couple of years ago when he was planning the course. But as unusual as the 15-foot runabouts are, they have not proved to be the craft of choice to the majority of the students, who have been going overboard for canoes. (So far, not a single individual in the program has accidentally overturned a canoe. Students are required to overturn them on purpose to learn how to handle such a situation.)

"If we can continue to expand our outdoor education program in high schools—and our ultimate goal is to make the course available in every high school in the state—we will eventually reach the point where we'll be training practically every resident future boat operator in Georgia," says Baker. "We'll be able to help them learn enough to become far better than the present-day average."

In seeking to raise that average now, Baker plans to establish adult programs to reach boaters in that critical 25 to 35 age category. Currently offering a variety of courses in safety afloat to adults as well as to teenagers and younger children, the U.S. Coast Guard Auxiliary last year gave instruction to nearly 14,000 persons in Georgia. "Education is the key," says Bolling Fortson Douglas, rear commodore of the Coast Guard Auxiliary's 7th District, which includes Georgia, South Carolina and all of Florida except the panhandle. "We offer courses to everybody in the district who wants to learn safety afloat. We supply the instructors when available on request from groups. And we offer correspondence courses."

The heaviest boating action has shifted from coastal to inland waters, says Mrs. Douglas, who last year was appointed by the Commandant of the U.S. Coast Guard to serve on the National Boating Safety Advisory Council, a 21-member civilian board that advises the Coast Guard on regulations and standards. And she points out, "Since statistics now show the greatest recreational boating population is inland, that's where we must devote the major part of our attention."

Practicing what she preaches, in the early 1970s she and another

An instructor (left) points out a safety procedure in a dual-control power runabout. Georgia's Outdoor Education Program is the only agency in the world, far as we know, that provides dual-control boats for instruction.

Worn-out PFD's such as this one may be worse than none at all. They provide the illusion of safety but not the effect.

Coast Guard Auxiliary membe
Mary Ruth Bird, provided instru
tion in boating skills and seama
ship to 109 Georgia Game and Fi
Division conservation rangers, mo
of whom are stationed in and arou
Georgia's inland lakes and strean

"Boating is a great sport," sa
W. D. (Red) Henderson, past co
mander of the U.S. Power Squa
rons in Atlanta. "But it's dangero
if you don't respect it. Boating
fun, but safe boating is more fur

To help augment the fun, Pow
Squadrons in Georgia offer 12-we
courses to the public, held twice
year, teaching basic safety in A
lanta, Columbus, Gainesville a
Savannah.

In about 40 Georgia counties, t
Red Cross offers small craft safe
programs, with courses running fro
12 to 15 hours. "And we conduct
annual 10-day national small cra
training school," says Billy G. Ne
some, southeastern area director
Red Cross safety programs. "App
cants must be 17 years of age
older. Most of them come out
instructors qualified to teach sm
craft safety when they go back
their own communities." This ye
the school, held at Camp Ocala o
side Umatilla, Fla., runs from Ju
6 to 16.

"All boating safety courses refle
just plain common sense," says B
Baker. "Anybody in Georgia m
go buy a boat. He doesn't have
have a speck of knowledge abo
boating safety. All he has to have
the money. He gets out on t
crowded water in an unfamiliar v
hicle that handles in an unfamili
way. Though he may not know it,
may be in trouble. But he's got
right to be out there. We all ha
a right to be out there. Howev
if we don't know anything about sa
boat handling, we're a menace
ourselves and to everybody arou
us on the water. We've got to exe
cise common sense and considerati
of the rights of others. When
reach the point where we cannot
that—for any reason, including i
norance of boating safety—we ab
cate our right to be there."

Georgia's Channel Bass

The Red Drums of Tybee and Pelican Spit...

By Bill Morehead

Photography by Jim Couch

I had just arrived at the south end Tybee Island. The morning's light Savannah Beach had given way he full faint blue of a sea gull's z' day. It was hot, even for Sep- ber, and the cold clear surf ased my feet as I waded in.

There was another fisherman ad of me, already in position. He began his cast silhouetted against the morning, and I guessed he was using an 8-foot rod and a baitcasting reel. The faint splash of the sinker rippled the water, the fisherman reeled his line tight, set the drag, and waited.

Just as I was rigging up my bait, I saw his rod arch. He set the hook once, twice, and his rod bent almost

double. The fight was on. The fisherman patiently waited as the first long run ripped out. I decided not to fish right then, but to watch this battle being silently fought in the background of folding surf.

The fish made another long run and the man slowly pumped and reeled the line back in. After about 10 minutes, the fisherman clearly gained ground on the fish. He backed up toward the beach, rather than pump the rod. Before long the fisherman was almost out of the water. It was easy to tell when the fish made a run by the fisherman's action.

Soon the fisherman had the fish in the surf. This was the time when the fish had his best chance to escape. If the fish could catch the fisherman leaning the wrong way in the surf he could pull loose. But not this time, for the fisherman obviously knew what he was doing, and he pulled the fish in with the incoming surf and waited out the ebb current.

The fish wasn't big enough to gaff, so the fisherman just hauled him onto the sand. I walked over to admire his catch. It was a nice channel bass, and we guessed it would run around 10 pounds—a fine eating fish and a sporty size to catch in the surf.

Sciaenops ocellata, known typically as the red drum, is also known as the channel bass, redfish, red spot, or just simply spot. It is not actually a bass, but a member of the drum family. The red drum, channel bass, or whatever you want to call it, ranges from the New England states

Top. A relatively light pyramid sinker is sufficient for a light surf.

Right. A net full of channel bass is a good reason to smile.

Far Right. A healthy bass breaks water near the boat toward the end of his struggles.

'lorida on the Atlantic, and is d in shallow water from Mexico lorida in the Gulf of Mexico.

he most striking features of the nel bass are the roman nose al of the drums and the black (or spots) located at the base e caudal fin. Younger fish have blotches on the back and sides. nannel bass are caught in the tal waters of Georgia and weigh a couple of pounds up to 50 ıds or so. There are two ways to 'or them. The more traditional is fishing, and this is generally best te September and October, al-gh some surf fishing for channel is done all year round.

ıe second method of fishing is in the warmer months of the This is boat fishing, and the is to cast right up in the edge of *'partina* marsh grasses. The fish ht in the summer are somewhat ler than those of the fall months, ney will still give you all the bat-ou want.

t's look first at surf fishing tech-es; again, while this is primarily fishing technique, it will catch channel bass almost every month of the year. You just have a better chance in the fall.

You can use a freshwater bass rod and a heavy duty spinning rod or baitcasting reel, but the best rigs are made for this type fishing. A stout 8-foot surf rod and a salt-water spinning reel or baitcasting reel are best. Put a 50 lb. line on the reel.

Use a 50-60 lb. test plastic-coated wire leader.

Sinkers depend on how heavy the surf is. A light surf will let you get by with a 4-oz. pyramid sinker, but when the tide is ripping, you'll need 10-12 oz. weights (which will be too heavy for the freshwater rigs mentioned above).

The sinkers should be slip-rigged so the line will pull through when a fish takes the bait. The reasons for this are the same as for using plastic worms for freshwater bass.

Cut mullet and squid are the preferred baits in Georgia. Artificial plugs and metal squids are used, too, but are best left to the real pros.

Shrimp is not generally used when fishing for channel bass. Most experts feel it won't last long enough on the hook, and you're also apt to be plagued with trash fish and small sharks.

A #9/0 hook is the size most used.

If you're going boat fishing, you can get by with your heavy duty freshwater rigs, but even here the best rigs are the light saltwater rods and reels.

Use the same sort of leader and bait as you'd use in surf fishing.

Sinkers depend upon where you are fishing. When casting to the grass, many people use no weights at all. Fishing deep holes, however, obviously requires sinkers.

Depending on size of bait, use a hook from #3/0 to #9/0.

Where to fish? For surf fishing, two of the very best areas in Georgia are (1) the south end of Tybee Island, near Savannah, and (2) Pelican Spit, a sandbar near the north end of Sea Island, in Glynn County.

There are many other places, but these two should get the beginner fishing.

Old-timers say most novice surfers

after channel bass wade out too far. The fish, if they are present, feed in the surf—not out beyond it.

Experienced channel bass fishermen watch the tide. Best times are before, during and shortly after low tide.

The best time of year for surf fishing runs from September through November.

Boat fishing is best in the spring and summer.

Best places are edges of marshgrass, at or near the mouths of inlets, and oyster shell banks. Oyster banks should be fished at or near high tides.

Coastal people know certain times not to fish. They don't fish on a full moon or a new moon, for tides are springing and the water is muddy.

There are four people who will help you out with information concerning channel bass fishing. There are, of course, many more, but for these four—it's part of their jobs.

Gib Johnston, information officer, DNR, Atlanta. Phone (404) 656-3530.

Jingle Davis, coastal information officer, DNR, Brunswick. Phone (912) 264-7330.

Jim Whitted, University of Ga., Marine Extension Service, Brunswick. Phone (912) 264-7268.

Frank Culpepper, owner, Two-Way Fish Camp, Brunswick. Phone (912) 264-9723. Frank sponsors a channel bass tournament which runs from April 1 to Labor Day.

Channel bass weighing less than 10 pounds are known as puppy drum. They are delicious.

* * PUPPY DRUM DELIGHT * *

For a fish 3 pounds or over:

Do not scale.

Cut head off and remove entrails.

Split the fish down the backbone and lay open like a book.

Put fish on foil, and baste with lemon juice, butter, white wine, and salt and pepper.

Broil the fish if it is less than 1½ inches thick. Bake the fish if it is thicker. Place in oven at 350°. Judge the baking time by testing the flesh with a fork—if it flakes, it is done.

Just lift the meat out, the skin and the scales will stick to the foil.

For a fish less than 3 lbs. use the deep fat frying method.

Bass in the 30-40 pound category taste like a stringy old mule.

For a fish weighing over 30 lbs., send the fish to be mounted and take your wife out to dinner.

The Colors
of Spring

The Colors of Spring

Dancing ferns spread feathered fans
Coy bluets mirror sky
White dogwood swirls its blossoms
like lost snowflakes in July

Once-sleeping woodlands riot with life
Inciting birds to sing

The landscape hums with colors
as the world wakes up to Spring.

Clockwise from upper left: Dogwood, Queen Anne's Lace, Sundrops, Woodfern, Quaker Ladies (Bluets), Wild Azalea, and center, Loblolly Pine.

A Soldier of Fort King George

le Davis

role of the Scottish Highlanders in sh County is so well-known that Scots are roneously associated with Fort King George, an 18th century fortification built on the banks of amaha River near Darien. While Highlanders rison a later installation called Fort Darien same site, they were not the troops which d the original British outpost.
nan Edwards, curator of the historic site and n, often tells visitors the poignant story of lsh and Irish soldiers who lived—and died— at ng George almost a decade before James Oglethorpe's Highlanders arrived to arien.

young Welsh soldier, Patrick Martin, came gly from the pleasant mists of sleep and into the daylight of reality. Sergeant Miles was standing n, shaking him roughly by the shoulder.
up, lout, and don your full kit. They've called inspection."
k rolled out of his bunk, hating the , but careful to keep his expression blank. To s feelings would mean a fist in his teeth, and s jaw was still sore from yesterday's clouting. ld bayonet wound in his left thigh ached norning chill. He ignored his leg and pulled on r uniform over his long drawers.
k strapped his four-inch wide leather belt his slim waist and buckled on his shoulder belt. ig up his Brown Bess musket and the rest

ngle Davis

of his gear, Patrick ran a hand through his short black hair, smoothing it down.

The other soldiers in His Majesty's 41st Regiment of Foot struggled clumsily into their kits, keeping an eye on the sergeant who often spurred them on with beatings.

The 41st was not Patrick's original outfit; like the other soldiers, he'd been assigned here to recuperate. The British isolated the war-wounded, the sick, the weak into so-called invalid regiments, theoretically to give the men a chance to mend slowly. In actual practice, the 41st was called into battle as often as any of the regular regiments, and its men were known as brave fighters.

While Patrick waited for the others, his thoughts wandered to Colleen. She'd followed his regiment around Wales and Ireland for more than three years now, though Colleen was no ordinary camp follower. She belonged to him, rather than to the regiment. Most of the camp women moved their loyalty from soldier to soldier as easily as they changed clothes.

Colleen was smart, too. He should have listened when she begged him not to join the army. But he'd been desperate—no job, no skills, no land or money or hope. And the soldiers looked so glamorous in their bright uniforms.

Yes, Colleen was a good woman—bickering with the others to get him a fair share of the camp food; mending and washing his clothes; picking up useful bits of gossip about promotions and troop movements.

"Move along, you lazy lout," the sergeant ordered, giving him a shove that almost knocked him back into his bunk. He hunched his shoulders against another blow and fell into line.

As they marched out to the parade ground in the cold Welsh morning air, Patrick didn't see Colleen, hiding behind the barracks doorway. She called, but the sergeant's roar sent her running off. Patrick turned, risking a beating, in time to see her skirt disappear around the corner of the barracks. He had no way of knowing he would never see Colleen again.

* * *

Colonel John Barnwell, South Carolina's leading practical military authority and famed Indian fighter, paused at the door of the Board of Trade office in London. Under his arm he carried a roll of plans—drawings he'd been working on for months.

The imaginative Irishman hoped to convince the board that his plans were valid—his descriptions of life in the new world could sound slightly unreal to Londoners. They were far removed from the wilderness of America which Barnwell had adopted as his home in 1700, twenty years before.

Fortunately, his abilities were not unknown in London. He squared his shoulders, knocked, and marched in.

Colonel Barnwell began by outlining conditions in the new world.

The Spanish, he said, were no longer the threat they'd once been. Even though Spain's missions and military outposts were well established on the southern coast when the British settled Charles Town in 1670, the Spanish military position was weak. Spain made the mistake of not arming her Guale Indian allies, something the British did not hesitate to do. The British, aided by their own Indian supporters, slowly forced the Spanish south to St. Augustine.

Colonel Barnwell explained that the Spanish retreat left a vacuum which encouraged a threat from another country. The French, he said, were working their way down the Mississippi from Canada to the Gulf of Mexico, establishing settlements and forts as they came. Then they began an eastward push, hoping to gain a foothold on America's south coast where they could meet French ships.

Colonel Barnwell knew Britain had no desire to lose her Indian trade monopoly in the potentially rich southeast. But the French had already found an easy route to the Atlantic. Crossing overland to mid-Georgia, they navigated the Ocmulgee River to the giant Altamaha, then followed it down to the sea.

Colonel Barnwell thought the French would revise their plans to colonize the area if they were cut off before reaching the sea, so he recommended building a fort at the mouth of the Altamaha River. He further envisioned a series of coastal fortifications which, he felt, would insure British control of the new world's eastern seaboard.

The Board of Trade agreed. The members approved the building of a small fort—to be called Fort King George—on a peninsula at the mouth of the Altamaha, where the river spreads its muddy fingers across a wide, grassy delta. They named Colonel Barnwell commandant of the fort, but instead of giving him the full regiment he requested, they gave him an oversized company of about 100 soldiers who would be drafted from the invalid 41st Regiment of Foot. The Board told Colonel Barnwell to use the soldiers of the newly raised independent company as laborers to get the fort built and in operation as quickly as possible.

Although Colonel Barnwell was listed as commandant, he served only briefly at the fort after it was built. A lower-ranking officer stayed on as resident commander.

* * *

Patrick Martin leaned against the rough wooden side of the small boat, glad they were nearing their destination. The trip down the coast from Beaufort to Fort King George had been fairly short, but Patrick and the others were sick of boats and anxious to stand on firm ground again. They were still weak from scurvy, one of the horrors of their recent

e to the new world.
knew now why they hadn't told him of his
er to America, that morning in Wales when
orted for routine inspection. The officers feared
desertion, so had given the men no opportunity to
. The soldiers were not even allowed a
nt to say goodbye to anyone.
en the troop ship docked in Beaufort, south of
s Town, the soldiers were so sick with scurvy
olonel Barnwell put them all in the hospital
eral months.
east, Patrick thought, they'd escaped the
of building the fort. Colonel Barnwell
cruited a group of South Carolina scouts when
ized the men of the independent company
o sick to build anything.
of the scouts later told Patrick what it was like:
lonel Barnwell sent us three miles into the
swamp to cut timbers for the blockhouse," the
aid. "Most of the time we worked in water up to
cks, but that wasn't the worst of it. If we
drown, we still had the Indians, the bugs, the
food, the foul water. We tried to mutiny,
lonel Barnwell put a short end to that. It's all
ow, and I swear, I'd rather roast in hell than
c there again."
ick remembered those bitter words as he
upriver to the distant peninsula where the fort
The dark trees beyond the golden delta grasses
menacing—the scout had described a
ess of mist-shrouded swamps; streams thick
ligators and poisonous snakes; swarming
s of yellow flies and mosquitoes; and the constant

expectation of an Indian spear in the back.

"Only a few miles more," the lieutenant called to the other boats from his place in the leading piragua. Patrick knew the lieutenant's words weren't offered in kindness. Officers could die just the same as enlisted men, and each night spent in the open reduced their odds of survival.

He shifted wearily on the thwart, his mind almost blank and his body exhausted. He didn't really care anymore where they were going. Even if Fort King George turned into a palace, Colleen wouldn't be there.

All he could do now was to make it through each hour, each day, as it came.

* * *

As Patrick and the other soldiers expected, Fort King George was no palace. Built hurriedly on a riverfront peninsula near what later became the Scottish settlement of Darien, the barrack for enlisted men was a shoddy structure, pre-built in Beaufort, disassembled, hauled to the fort site and reconstructed. Quarters for sergeants were only slightly better—thatched palmetto huts which two or three men shared.

The fort's only sturdy structure was the three-story blockhouse, built of native cypress which the South Carolina scouts had hand-cut into interlocking logs and put together with wooden pegs.

Morale was generally poor for enlisted men at most duty stations, but conditions which caused discontent multiplied at Fort King George.

Because the fort's soldiers served as a deterrent rather than as attack troops, the men suffered much more from boredom than from musket balls.

*te: This old channel of the
ha River passes the original
Ft. King George.*

y Bob Busby

*as there have been soldiers,
ve been thoughts of home
ed ones far away.*

ingle Dovis

rtin's will supplies the only known
n enlisted man who served at Fort
ge. The document was discovered by
Lewis, McIntosh County historian,
h Carolina archives.

Day of December next ensuing. Dated this Tenth
Day of September Anno Dom. 1723. and in the Tenth Year
of his Majesty's Reign. Jno. Nicholson
To Mr. William Watson, Mr. Joseph Love, Mr. John Givens,
Mr. Phil. Scott, and Mr. James Gill.
or any three of them. Test. By his Excellency's Command.
Recorded 9ber 10th 1723 Chas. Hart Secry
Chas. Hart Secry

Patrick Martin's Will 2 pp (one bundle) Ee. N. 13.

In the Name of God Amen. I Patrick Martin of
Fort King George, Soldier, being weak in Body, but of sound and
disposing Memory, Praised be God for the same, Do make and
declare this my last Will and Testament in manner & form following
(viz.) that is to say, First and Principally I recommend my Soul into the hands
of Almighty God my Creator & Redeemer, trusting & assuredly believing
that I shall receive full pardon and free remission of all my Sins, through
the alone merits of Jesus Christ my blessed Saviour & Redeemer, as for my
Body, I commit it to the Earth to be buried at the discretion of
my commanding Officer and as for my Worldly Estate, Goods, Chattels &
Debts which now is or at any time hereafter shall be any ways owing
payable or belonging unto me, at the time of my decease, I do give,
devise and bequeath in manner and form following (Imprimis)
I do give, devise and bequeath unto Mr. Hunter three and a half of
holland. Item I do give, devise and bequeath unto Mr. Hunter one
holland shirt & stock & turn over. Item I do give, devise & bequeath unto
Miss M[illegible]anally one holland shirt, one stock and turn over, one pair
of Stockings and a pair of Shoes. Item I do give, devise and bequeath
unto Ja. Holmes one holland shirt, stock and turn over, one pair of
Stockings & Shoe strings. Item I do give, devise and bequeath unto Thomas
Fitzgerald one holland shirt, one stock and turnover. Item I do give
unto Philip Lovett one holland shirt, one stock and turn over. Item
I do give, devise and bequeath unto Michael Rowe three good holland
shirts one stock and turn over. Item I do give, devise and bequeath
unto Robert Knight two good holland shirts, one stock and turnover, two
pair of white knitted Stockings, as to all the rest, residue and remainder
of my Estate, goods, Chattels and Debts whatsoever which shall be any ways due
upon Bill or Bond I do give, devise and bequeath unto my loving
friend John Carmichael of the Parish Prince George, whom I do hereby
nominate and appoint sole and only Executor of this my last Will and
Testament hereby revoking all former Wills by me made. In Witness
whereof I have hereunto set my hand & seal this twenty fourth day of
June 1723. Annoq. R.R. Georgii Magnæ Britanniæ Nono
Patrick Martin (L.S) Witnesses. Signed, Sealed, published and
Declared

Declared in the presence of us, Chas. Hunter Will. Prentiss
Joseph Bell. Sworn 11th August 1724

Outdoors in Geo

ithout women, they were forced to do unaccustomed
:s—cooking, cleaning, mending. Food was a real
em. Staples were salt beef, which they boiled and
ith stale biscuits, and occasional rations of corn.
· daily diet was both unhealthy and dull. Although
irrounding woods were full of game and the river
ıded with seafoods, the soldiers were in unfamiliar
ory. They were afraid to venture outside the
ides into the unknown beyond.

cause of their fears—some justified, some
stitious nonsense—drinking water was even
of a problem. They had no well and, rather than
re the woods for springs, they drew water
the Altamaha River. While the Altamaha is fresh,
ver at the fort site is brackish at best, even
h the soldiers only drew drinking water when
de was going out.

ects were a constant torment, and even the
rs' summer uniforms, made of heavy osnaburg
rial, were completely wrong for Georgia's climate.

icers suffered almost as much as the men
ere inclined to take out their frustrations on the
s. Corporal punishments were common, and
enlisted men bore scars on their faces and backs
beatings and whippings. Some of the soldiers
ed to the Spanish in St. Augustine, 100
south, where they hoped to rediscover some trace
ilization. A few of the toughest may have made
rest undoubtedly succumbed to the wilderness or
tile Indians. The soldiers spent the long days
ling, quarreling, drinking thin sour beer—and

ring the short six-year period of Fort King
ge's existence—1721 until 1727—more than 140
ied and were buried there, in what may be
dest cemetery for regular British troops
rth America.

e dead were buried at night without ceremony, so
anish and Indians would not suspect how frail
rrison really was.

hough the main purpose of Fort King George was
courage French settlement, South Carolina
rs expected the little outpost to stop the frequent
raids on their property. But raiding parties
by-passed the fort on their way north,
e soldiers had no orders to venture out on
ns against the Indians.

t King George burned in the winter of 1725-26
as partly rebuilt, but was abandoned soon
ards. By this time, Britain's trade position in the
as strong enough to repel the French, who never
me the disadvantage of their distant
ian home base. The little fort—at least from
itish point of view—had served its purpose well.
ranee managed to colonize Georgia's coast,
lden Isles and coastal cities here would
btedly retain evidences of French subculture, as
w Orleans, Baton Rouge and other Gulf Coast
s.

After the soldiers departed, two men—paid by the South Carolina assembly—stayed on at Fort King George until Savannah was founded in 1733. The new colony of Georgia replaced the fort as a buffer zone between the South Carolina colonials and the still-threatening Spanish and Indians to the south.

In 1736 Fort Darien, built near the same site, was garrisoned by Oglethorpe's colorful Scots Highlanders. Still later, the riverfront location served as a sawmill site when Darien was at the heart of the timbering industry which lasted until the early 1900s.

Patrick Martin, the young Welsh soldier, died at Fort King George. Unlike most of his enlisted comrades, he could read and write well enough to leave a will. It is a touching reminder of how few material possessions the soldiers had to pass along. It reads,

"I, Patrick Martin, of Fort King George, soldier . . ."

and this is what Patrick Martin left to his friends:

"Four half worn wiggs'
One black cloth coat and waistecoat 2-3rd worn
A half worn fustian coat
A cloth coat and waiste coat
A pair of leather breeches and 19 plate buttons
Three half worn shirts
One pair of silk and two pair of thread stockings
Four old stocks and one turn over
An old hair trunk."

Today a modern museum with exhibits and displays of artifacts, a cluster of small gravestones, and the ruins of the three sawmills occupy the lovely riverfront fort site east of Darien. Looking out across the peaceful delta to the distant green islands, it is difficult to imagine the hardships which tormented the soldiers stationed here so many years ago.

It is ironic that their lives could have been so much more pleasant had they only known the richness and the beauty of the land they occupied.

Outdoor Calendar

TROUT FISHING REGULATIONS

REGULAR TROUT SEASON

The Georgia trout season runs from Mar. 27, 1976 - Oct. 31, 1976. This season applies to all streams in the counties of Dawson; Fannin; Gilmer; Habersham, north of Ga. 115; Lumpkin, north of Ga. 52, east of Dahlonega and north and west of U.S. 19 west of Dahlonega; Murray; Pickens; Rabun; Towns; Union; and White, north of Ga. 115. It also applies to the Chattahoochee River and its tributaries upstream to the backwater level due to power generation from Buford Dam to the Roswell Bridge on U.S. 19.

Streams designated as trout water in the counties of Bartow, Catoosa, Chattooga, Cherokee, Floyd, Gordon, Haralson, Paulding, Polk, and Walker open and close with the regular state trout season Mar. 27 - Oct. 31. These streams are designated by signs erected by the Game and Fish Division.

WILDLIFE MANAGEMENT AREA TROUT SEASON

The WMA trout season is May 1, 1976 - Labor Day, 1976. This season applies to those streams, and their tributaries, listed in the Managed Stream Schedule Section. All other streams on Wildlife Management Areas will be open during the regular trout season Mar. 27 - Oct. 31.

GENERAL TROUT REGULATIONS

CREEL LIMIT

Eight trout per day regardless of species except as otherwise provided in Special Regulations. Possession limit 8 trout regardless of species.

FISHING HOURS

Fishing hours on trout streams open during the regular and managed trout seasons are 30 min. before sunrise until 30 min. after set. No night fishing on these stre is permitted. Trout fishing at nig permitted on all impoundment cept Rock Creek Lake and Edmu son Pond, where fishing is permi from 30 min. before sunrise unti min. after sunset. Night fish permitted on "year-round" t streams. Exception: Waters Cree see trout regulations pamphlet.

FISHING METHODS

1. Fishermen may take trout with rod and line. Trout fisher are restricted to the use of one and line which must be hand he
2. Live bait-fish **MAY NOT** used in **ANY** trout stream. Sei of bait fish is not allowed in trout stream.
3. Trotlines, set hooks, jugs, r and bows and arrows are prohib in all trout streams.
4. On those streams design for "artificials only," only artifi

Photos by Aaron Pass

may be used. It is illegal for ne fishing an artificial only n to have any other type bait session.

tificial bait as used in these gulations means any bait ich is man-made, in imitation or as a substitute for natural it, and includes artificial flies. DT included and expressly hibited are fish eggs, corn, chemically treated and pro- sed foods.

. While fishing speeially regu- waters with a minimum size t it is a violation to possess trout s than the specified minimum

It is illegal for anglers to move t from one body of water to an-

ICENSE REQUIREMENTS

resident fishermen 16 or older equired to have a valid eurrent g lieense and trout stamp in possession while fishing for with the exeeption of land- s and members of their imme- family who may fish without nse on their own property. All esidents, regardless of age, are ed to have non-resident fishing e and trout stamp while fishing ignated trout waters.

sidents over 65, blind persons, tally disabled veterans may ob- permanent honorary license f eharge by personal or mail ation to the Game and Fish Di- Atlanta Offiee.

LICENSE FEES

ent Fishing License	$ 3.25
ent Combination nting and Fishing	7.25
Resident Fishing day trip)	3.25
Resident Season Fishing ense	10.25

TROUT STAMP FEES

nt Trout Stamp	$ 2.25
Resident Trout Stamp day)	3.25
Resident Season Trout np	10.25

ident Georgia fishing licenses ailable in all parts of the state nore than 2000 license dealers st hardware stores, sporting s stores, bait dealers, marinas, Many license dealers also sell

non-resident fishing licenses.

All licenses may be purchased in person or by mail from the Department of Natural Resources, 270 Washington St., S.W., Atlanta, Ga. 30334.

Orders by mail should include the complete physical description and address of the applicant with the proper payment. All licenses purchased during the 1976-77 season expire on Mareh 31, 1977.

LAKES AND RESERVOIRS

The trout season does not apply to any lake or reservoir, exeept Rock Creek Lake and Edmundson Pond which are open as tributaries to Rock Creek. (See Managed Stream Schedule.)

Dockery Lake is elosed to fishing.

Lakes Lanier, Hartwell, Clark Hill, Burton, Rabun, Seed, Tallulah Falls and Blue Ridge have a minimum size limit of 14 in. on all species of trout from Dec. 1-April 1.

TRIBUTARIES CLOSED

All tributary streams to Lake Lanier, except the Chattahoochee and Chestatee Rivers, to Lake Hartwell, except the Tugaloo River, and to Clark Hill Reservoir, except the Savannah, Broad and Little Rivers, are elosed to fishing for a distance of 3 mi. upstream from backwater from Dec. 1 to April 1.

TROUT STAMP

A current trout stamp affixed to a valid fishing license is required to catch and possess trout. (See License Requirements.)

A trout stamp is required to fish in Roek Creek Lake and Edmundson Pond.

On all other lakes or reservoirs where trout are present the trout stamp is required only if trout are in possession.

NIGHT FISHING

Night fishing for trout is permitted on year-round streams, reservoirs and lakes, except Rock Creek Lake and Edmundson Pond, where fishing is permitted from 30 min. before sunrise until 30 min. after sunset.

Turkey Seasons

TURKEY SEASONS

Turkeys are classified as "big game" in Georgia, so the hunter must have a valid big game license in addition to a general state hunting license. The 1975-76 licenses expire on March 31, 1976, and as of April 1, 1976 turkey hunters must purchase new licenses for the 1976-77 season.

Maximum limit is two turkey gobblers, only one of which may be taken on any one managed hunt.

NORTHEAST GEORGIA

March 27-May 1, 1976.

In the following counties: Banks, Dawson, Franklin, Habersham, Lumpkin, Rabun, Stephens, Towns, Union and White.

Management Areas:

Chattahoochee WMA — April 12-17, 1976 — one (1) turkey gobbler — $5.00 permit required.

Blue Ridge WMA — April 19-24, 1976 — one (1) turkey gobbler — $5.00 permit required.

Lake Burton WMA — April 19-24, 1976 — one (1) turkey gobbler — $5.00 permit required.

NORTHWEST GEORGIA

April 3-May 8, 1976.

In the following counties: Chattooga, Fannin, except that portion bounded on the north by Hwy. 76 and Hwy. 60, on the west by Aska Rd., on the east by Tilly Church Rd., and on the south by Shallowford Bridge Rd., Floyd, Gilmer, Gordon, Murray, and the portion of Walker County lying east of U.S. Highway 27.

Management Areas:

Cohutta WMA — April 24-May 8, 1976 — one (1) turkey gobbler — no permit required.

John's Mountain WMA — April 3-May 8, 1976 — one (1) turkey gobbler — no permit required, no check-in.

EAST-CENTRAL GEORGIA

March 27-May 1, 1976.

In the following counties: Columbia, Elbert, Greene, Hancock, Houston, Lincoln, McDuffie, Oglethorpe, Pulaski, Taliaferro, Twiggs, Warren, Wilkes, and Wilkinson.

Management Areas:

Clark Hill WMA — April 12-17, 1976 — one (1) turkey gobbler — $5.00 permit required. (See special regulations on check-in at check station).

Central Georgia Branch Station — April 5-10, 1976 — one (1) turkey gobbler — $5 permit required.

Ocmulgee WMA — April 5-10; April 15-17, 1976 — one (1) turkey gobbler — $5.00 permit required.

Ogeechee WMA — April 21-24, April 28-May 1, 1976 — one (1) turkey gobbler — $5.00 permit required.

WEST-CENTRAL GEORGIA

March 20-April 10, 1976.

In the following counties: Calhoun, Dougherty, Stewart, and Talbot.

SOUTH GEORGIA

March 13-April 10, 1976.

In the following counties: Ben H[illard] Dodge, Wilcox, that portion [of] Clinch lying east of U.S. High[way] 441 and south of Ga. Hwy. 94, [and] that portion of Echols County ly[ing] south and east of U.S. Highway 4[41].

Management Areas:

Bullard Creek WMA — March [20-] 27, 1976 and March 31-April [10,] 1976.

Hunting from 30 minutes bef[ore] sunrise until 12 noon. No check [in] or out, but all turkeys killed m[ust] be reported at check station. [No] pre-hunt scouting allowed.

Military Installations

Fort Gordon — March 27-May [10,] 1976. Hunters are subject to b[oth] State and Post regulations.

Fort Stewart — April 1-17, 19[76] Hunters must check-in and [out] through the Provost Marshal [and] abide by all Post regulations.

To Build A Rod

Lacquer, Glass and Thread...

By Aaron Pass

Photography by Cathy Cardarelli

The word custom-made denotes that an article was made, usually by hand, on special order to non-standard specifications. This places items with such a label in a rather class, being above the strictly utilitarian humdrum of off-the-shelf goods.

The possessor of such an article is also uplifted, for the connotations of custom-made imply certain things. That the user is more discriminating and exacting than his fellows is the most obvious implication. There is also the suggestion that he has the skill and experience necessary to distinguish the subtle nuances of performance that separate the super-fine from the more pedestrian fine. Also present is the materialistic consideration that custom-made goods are never loss leaders in bargain basement sales.

Almost everyone is susceptible to the charms of a touch of class in anything from handmade shoes to English shotguns, but the plain truth is few can indulge in such luxuries. The custom fishing rod is not such an exclusive proposition, but it is still the hand crafted work of a careful artisan.

Starting with a standard fiberglass or graphite blank, the rod builder attaches reel seat, grip, guides and ferrules. The product, in action, is identical to commercial models made from the same blank. The "custom" comes in with the accouterments. The reel seat may be of superior material; the guides, ceramic; the grip or handle, fitted especially to the customer's hand. The rod is a one-of-a-kind custom job, at a price competitive with the same rod in its commercial incarnation.

The artisan's touch lends subtle differences. The windings of the guides are just so; the sanding of the cork grip is even. The rod has a visible "together" look that comes from careful attention to detail. The rod builder is a craftsman, proud of his skills and his product—an affordable touch of class.

If this makes the custom rod user seem snobbish, so be it. Fishing and the equipment that goes with it is supposed to be fun. If he feels that his special stick adds a few feet to each cast or that the grip is less tiring in a day of fishing, he has his money's worth.

Special thonks to rod-builder Cal Parker of Roswell who posed for these photographs.

Outdoor Comments

(Editor's Note: We recently conducted a survey of a sampling of OUTDOORS IN GEORGIA *readers. One of the questions asked for a response to the magazine as a whole, i.e. gripes, compliments, general impressions, etc. We had a very good response and we thought we would share some of the comments with you. This month "Outdoor Comments" will replace our regular "Letters to the Editor" section.)*

Would like to see some information or maps for unposted property where hunting is allowed. I feel you cover this category exclusively for deer hunters, but not thoroughly enough for other game.

* * *

My family enjoys your beautiful pictures tremendously. My little boy even wants to see what pretty pictures are featured each month.

Would also like to see more articles on boating. Especially the new Georgia laws and their enforcement. Would love to see more coverage of the life and loves of the beagle.

* * *

I would like to see hunting regulations and the laws put in your magazine a little early—not the month's issue after a season is almost half over.

Also, please make them so most average people can understand them. Please put more wildlife pictures in the issues.

* * *

I don't have a lot of complaints with anything. This questionnaire gives me a great opportunity to commend you on a fine magazine. I love it. I only wish it was a thicker magazine, since I read the complete book. The main reason I subscribe to it is it is about Georgia. Some of the other mags are about Utah, Idaho, and Montana, etc., places I probably will never hunt or fish in. Therefore, I don't have that much terest in those places.

* * *

I am 70 years old and will not be hun i much more, but will still be fishing, but mc on my own 2 acre lake.

I would like to see more on guns and fish rods, reels, etc.—pond recommendations, and *especially* more effort against gun con The criminals could secure guns for 100 y (illegally) if no more guns were manufactu I have just purchased a riot gun and have a tol. I will *not* turn them in. Thanks.

* * *

On the articles about the historical buildi furniture and sites (pictures about old firepla rooms of antique furniture, etc.)—I would to see these articles longer and with more tures. I'm very interested in buildings and t furnishings that were built long ago.

* * *

This isn't a gripe—it's a compliment. pictures of the wildlife in your book are beautiful, especially the birds and butterflie

I ordered your magazine for our family, and out-of-state, because of its beautiful tography and educational articles. I think do an excellent presentation of *balanced* in mation:

an article on wildlife
an article on current living with a touch the past (as "A Far Place" on fireplaces
an article on hunting and dogs
an article on crafts

* * *

I place a high value on this magazine fo forming our young son about outdoor facts the enjoyment and information appeal of photographic work.

We all enjoy and appreciate this mag and would be entirely satisfied if *nothin* changed.

* * *

If you're going to raise the subscription you better increase the number of articles.

now obtain most of my information on es and events of family interest from *South- Living* Magazine. Our activities are limited ne ages of our children, 5 and 7, to seldom ide overnight stays, but as they grow older will include camping and boating (non- er). I am trying to instill in the children an eciation of the plants, animals and birds, so les along this line are appreciated.

* * *

would like for a small bit of some issues to ide coverage of events outside the direct nsibility of the Department of Natural Re- ces. This would include festivals or craft held by towns or countries, or facilities un- the jurisdiction of U.S. government agen- Thank you for the opportunity of this tionnaire.

* * *

ne only personal gripe I have is not receiv- *Outdoors in Georgia* on time. As of this January 26, 1976, the latest issue I have is mber. It seems that in comparison with magazines, I should have received January February issues by now.

* * *

autiful magazine! Great photos, not enough ing" from writers . . . give us info on *game ish*—how to use depth finders, archery, etc. ook into mountain living (like *Foxfire*) s "how to" in the old, lost art of self-preser- n . . . edible plants, etc. . . . (not just one article, but a continuing section on all the e.) Increase to $4.00 and drop the "tourist talk, get on with "gut level."

* * *

here goes. I have every copy of the old *e & Fish* magazine that I keep for refer- I lost interest in keeping your new type of zine because very seldom does it have more one article that interests me. About five ago during a bow hunt on Blackbeard d, I heard compliments from some Floridi- nd South Carolinians about Georgia *Game h* magazine being one of the best of its type ubscribe to. From its birth until the change, ld agree. Someone is really overlooking the r and fisherman that buy licenses, and I would guess make up about 85% of your subscribers. Two of my friends let their subscription run out about a year ago and if the magazine does not change, I will probably be next. I have nothing against articles on rocks, flowers, hiking, historical sites, etc., but they seem to have taken over a magazine I always eagerly looked for in the mail. I know that costs prohibit two different magazines but I honestly believe your subscriptions would increase quite a bit if you give the majority what they want. This is my gripe answer which I have heard discussed a lot, but so many of these persons do not take time to answer these questionnaires. Please wake up, not only for my sake and the thousands of hunters, fishermen and sportsmen but for the life of the magazine.

* * *

My family and I think that *Outdoors in Georgia* is one of the most enjoyable and beautiful of the state-affiliated magazines of this type that we have seen (Georgia, Tennessee, California). We particularly enjoy articles about people and traditions and places which are unique to Georgia. We have observed the transition in the magazine's philosophy away from a service to sportsmen only and we have enjoyed the transition because we have felt that it was well done and timely. I am an avid hunter and fisherman and enjoyed those aspects of living in Georgia. We continue to subscribe to the magazine even though we have moved away because we enjoy the articles very much.

Editor's Note

Just before this issue went to press, it was decided to hold the *Readership Survey* report. Thus, you may be disappointed and we certainly don't want to disappoint our readers.

It was felt that this story is so important that we needed to hold up running it until we get all of the responses included (and not just a sample of them). We'll run it just as soon as we can.

Outdoors in Touch

COASTAL PUBLIC DOMAIN

Cammissianer of Natural Resources Joe D. Tanner, aware that there were a number af legal technicalities the State Supreme Caurt cauld have used ta avaid facing the prablem, said, "I'd like to commend the Caurt on tackling a difficult, substantive issue and making a decision so important and favorable ta the peaple."

The camplex case arase fram an attempt by same develapers ta rezane an area af beachfrant an St. Simans ta build candominiums there. Before 1902 the law in Geargia was clear that the state awned the fare-

share—the land between the high and law water—in the name af the people. In 1902 a legislative act which intended ta resalve an issue cancerning awnership and harvesting af aysters and clams was interpreted by same individuals as applying to title of foreshore and cansequently clauded the questian af awnership. This confusian was a tapic af discussian in the 1945 constitutianal canventian; the drafters af that canstitutian included a provisian ratifying the 1902 act. In the current litigatian, the state taak the position that if the 1902 act did relate ta title, it was uncanstitutianal and that the subsequent ratificatian in 1945 was ineffective. The develapers claimed that the 1902 act did give them title ta the foreshare area and the right ta exclusive use of the beach. However, the Supreme Court determined that the State af Geargia halds fee simple title ta the foreshore area in all navigable tidewaters. The caurt said the particular section af the 1902 act in questian in this litigation daes nat give adjacent landowners "title ta anything. It grants 'rights' and nathing more . . . In aur apinian, nathing but the right ta plant, cultivate and harvest aysters and clams was granted."

TURKEY CALLING CONTEST

The secand annual Geargia State Turkey C Championship was held March 6 in Washingtan, gia. Sponsared by the local chapter af the Na Wild Turkey Federatian, the cantest had three divi Yauth (age 17 and under), State (residents anly) Open.

The contestants, calling from a blind, were aut judges' sight and were identified only by number were asked ta da several standard turkey call judged on their ability.

Winners were:

State Champian, Jerame Wilson; 2nd, Fred S and 3rd, Gary Jahnston.

Harvey Graybill af Camp Hill, Pennsylvania, the Open Divisian and Charlie Sprouse af Edg Sauth Caralina taak 2nd.

Mark Warm won 1st in the Yauth Division.

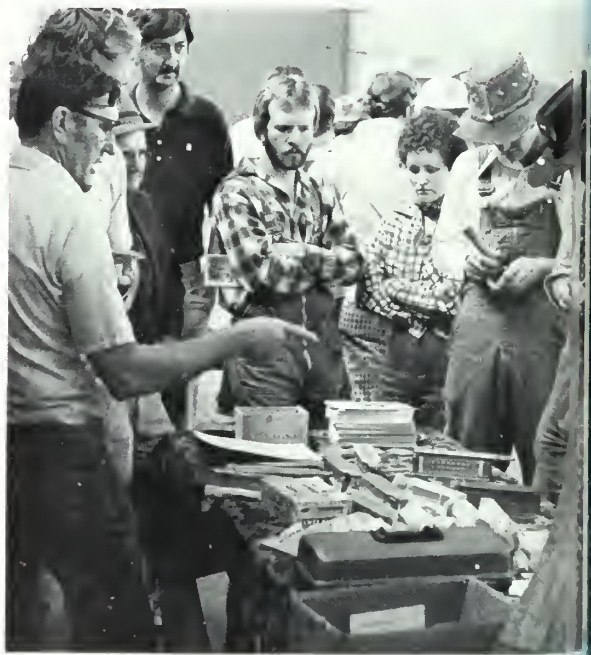
Judges were:

Leray Braungardt, 1971 Natianal Amateur C pian; Prestan Pittman, Mississippi State Cham Jackie Bledsoe, South Caralina State Champion Jerry Allen, Executive Secretary of the National Turkey Federation.

In addition to the contest, visitors were entert by expert calling demonstratians by the judges.

Wimbric Walker, member af the Baard af N Resaurces, spake abaut the state's turkey resto program.

There were alsa several displays af turkey hunting gear and art. The art cansisted af prints, auctianed aff far the benefit af the chapter.



Coming Next Month...

Visit to the Rookery. Wildlife Biologist Ron Odom takes the reader on a tour of a heron rookery, explaining the practices and problems of these community-nesting birds.

A Crow in Baseball Clothes, the Blue Jay. This well-known bully of the bird feeders, is, in addition to being a rascal, a beautiful and interesting neighbor according to Bill Morehead.

Photos From The Past. Jarrell Plantation, a historic site near Forsyth, depicts Georgia's agricultural heritage from 1840-1940.

Fish Stories. Last year a new world's record and three new state records were set by Georgia anglers. In addition another state record was tied. Read about it in May OIG.

Outdoors in Georgia

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MAGAZINE STAFF
Phone—656-5660

David Cranshaw · Editor-in-Chief
Bill Morehead . . . . . Editor

Aaron Pass . . . . . Managing Editor
Rebecca N. Marshall . . . . . Writer
Dick Davis . . . . . Writer
Bill Hammack . . . . . Writer
Jingle Davis . . . . . Writer
Susan Wood . . . . . Writer

Liz Carmichael Jones . . . Art Director
Bob Busby . . . . . Photo Editor
Edward Brock . . . . . Photographer
Cathy Cardarelli . . . . Photographer
Jim Couch . . . . . Photographer
Priscilla C. Powell . Circulation Manager

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Rolling on the River

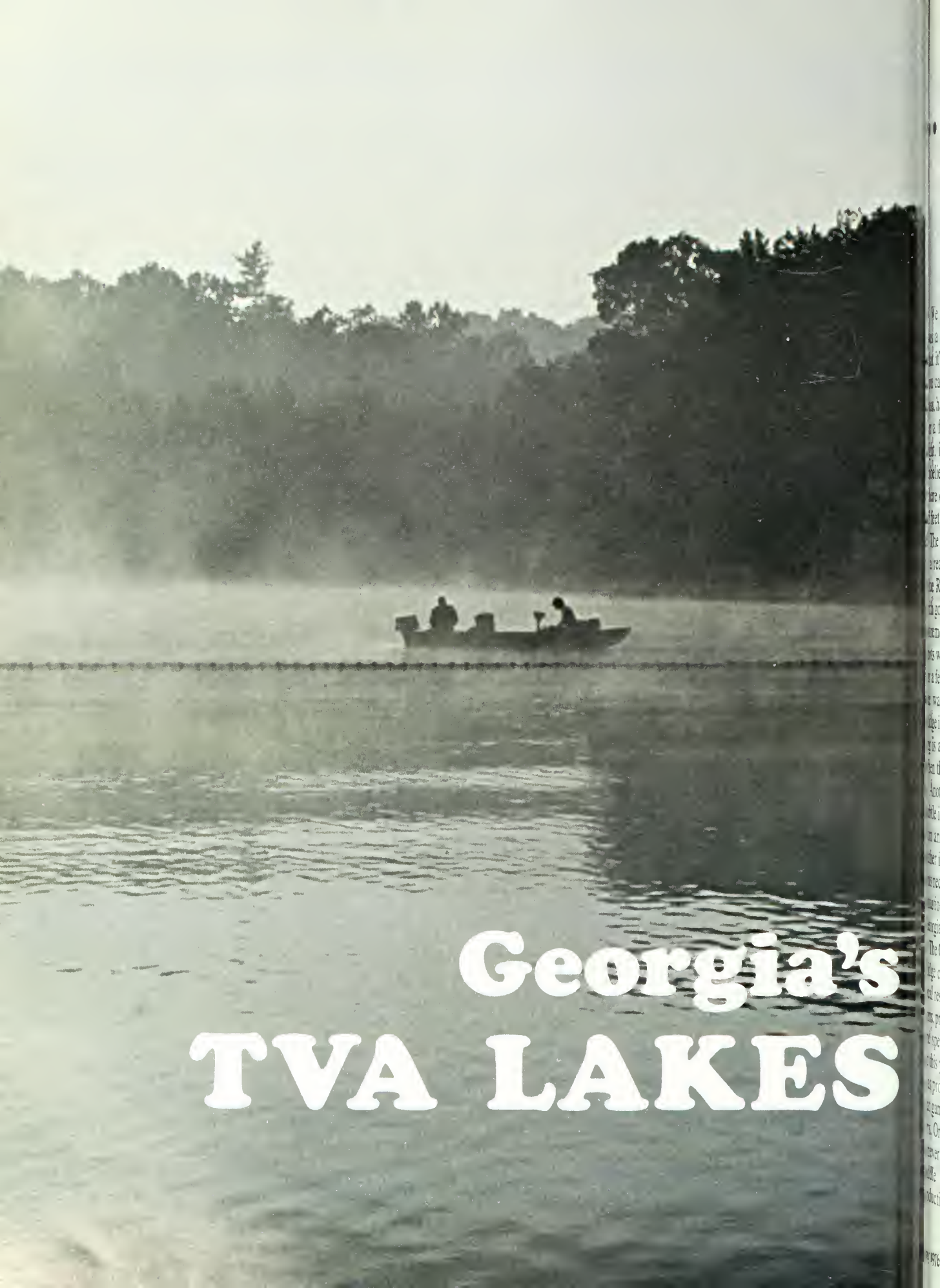
No knowledgeable sports car driver wants to exceed the redline on the tachometer—he knows that if he does, he invites trouble. As the great raft racing season opens in Georgia, we'd like to suggest there's a redline in rafting too. And a rafter who goes over that redline may get into a great deal of trouble.

We're not going to recite the sad litany of what could happen, of what has happened—the fatalities, the injuries, the accidents. It is not our purpose to be a wet blanket, as our rivers are great recreational resources to be enjoyed. We do recommend safety conscious recreational usage.

While you're reading this, relaxed and taking it easy, your common sense tells you it's smart to be safe. But out there on the raft in the water, with all the frolicking, with the blood singing and the adrenalin pumping, we ask you not to forget, in all that excitement, to take care of yourselves instead of taking chances.

Rafting—for those who enjoy it—is too much fun to be a one-shot proposition.

David Crenshaw



Georgia's TVA LAKES

..Clearly troubled waters

By Aaron Pass
Photos by OIG Staff

e could see him and he could see us; it a perfect standoff. Veteran fishermen say it's a waste of time to fool with any fish can see. In this case they were right. The having seen enough, drifted slowly forward few inches and suddenly scooted out of into deeper water. No mean feat in the ievably clear water of Blue Ridge Lake, one can easily scrutinize the bottom 10-et down.

e same clear water which was our undoing eal obstacle to the many anglers who fish Ridge—double trouble in fact. Wary fish good visibility are an obvious problem. It is nely difficult to approach fish-holding without spooking all the residents. Except few weeks in early spring when rain colors water slightly, successful fishing on Blue is mostly a night-time venture. Deep troll- also popular during the summer months the water is clear.

other problem with clear water is more in its effects on Blue Ridge's fish produc- nd the angler's stringer. Blue Ridge is a infertile lake, low in the dissolved nutri- ecessary for a highly productive fishery—a ion Blue Ridge shares with many north gia reservoirs.

e Game and Fish Division has studied Blue closely in the past year at the request of esidents. Studies to determine fish popula-, presence and availability of forage species, pecies composition are being carried out. s point, the conclusion is that Blue Ridge roductive as natural conditions allow and game fish species are present in good num- On the other side of the coin, Blue Ridge er going to rival the richer reservoirs of e and south Georgia in terms of fish ction.

Of course, Blue Ridge has some things going for it that southern waters can't match—smallmouth bass and walleye (also known as "pike"). These two highly prized game species prefer cool waters and are very much at home in the clear depth of the lake. They are abundant in only a few other reservoirs, which are also in the northern part of the state.

Blue Ridge is perhaps one of the top walleye lakes in the state and its smallmouth population is very good. Largemouth bass are also present, apparently in numbers equal to the smallmouths. Crappie and bluegill populations are not heavy, but the fish are. The individual fish of these species reach large sizes, perhaps due to the low density populations. It is not uncommon to pick up big bluegills while plugging for bass.

Trout are present in the lake, but they don't get much attention. Big catfish do, and local anglers hoist many big channel and flathead catfish from these waters.

Located between Morgantown and Blue Ridge, the lake has three public launching ramps and one commercial marina. There are 3,320 acres of the lake and it is very deep. It was impounded in the 1930s and is presently operated by the Tennessee Valley Authority.

Another TVA lake, Nottely, is as different from Blue Ridge as day from night. Although only 30 miles away, Nottely's 4,290 acres are comparatively shallow. It is not really similar to any other lake in North Georgia. Lake Sinclair in Middle Georgia may be the closest comparison. Located northwest of Blairsville, Nottely has three public launching ramps, and there are two commercial facilities.

The dingy green water of Nottely is known for good largemouth bass fishing. Spotted bass are also present, but smallmouths are very rare.

There is no second story fishery for trout. Walleyes have been stocked, but they are not often caught. White bass have also been introduced and offer fair fishing.

Game and Fish Division research projects on Lake Nottely indicate its worth as a fishery. Creel checks and cove samples show good populations of both game and forage species and good production of fry. A 1973 creel check showed the most successful bass fishing occurred in late June and again in late October and early November. Creel checks conducted last summer reveal the average bass caught weighed 2.9 pounds. The bass caught was composed of 92 percent largemouth and 8 percent spotted bass.

Besides bass, Nottely is known as a good catfishing spot. Both channel and flatheads are present and some whoppers are caught. The state record flathead, 51 pounds and 15 ounces, was caught there in 1969.

Another prized game fish may have a future in Nottely. Striped bass were introduced several years ago and are beginning to turn up in the creel. The stockings took place in 1969, 1971, 1973 and 1975. Recent sampling with gill nets have turned up some nice stripers, with some in the 25-pound category. Not many fishermen go after the stripers, probably because few really know how to fish for them.

We share Lake Chatuge, near Hiawassee, with North Carolina. Georgia fishing licenses are honored only in the main portion of the lake, not up tributaries on the North Carolina side, nor can the boats be tied to any structure on the North Carolina side. Chatuge, also TVA built and administered, totals 7,150 acres of clear, deep water. There are three public launching ramps and several commercial facilities.

Chatuge is more similar to Blue Ridge than Nottely in appearance and fishing. The problems of high visibility and low fertility also plague Chatuge anglers. Successful techniques are similar on the two lakes, with night fishing being popular.

Chatuge is the only Georgia reservoir which rivals Blue Ridge's smallmouth fishing and is very popular for this species. The state record smallmouth was caught there in 1973. The lake is stocked with trout, another very popular species. Walleye have been stocked and are being

taken by fishermen.

Largemouth and spotted bass, white
bream, and crappie round out Chatuge's co
ment of gamefish. Each species is very po
with its respective following.

The three TVA lakes provide very intere
fishing experiences. Their mountain se
makes for great scenery and offers a host o
reational experiences to families. True,
lakes are somewhat difficult to fish, but
anglers relish challenge. With smallmouth,
eye, stripers and trout in the offing, the chal
is quite intriguing.

Above, the beautiful blue water and wooded shoreline of Lake Blue Ridge suggest a northwoods lake. These anglers try a rocky point for bass.

At left, Game and Fish Division population studies indicate adequate populations and reproduction in Blue Ridge.

At far left, an angler adds a nice smallmouth to his mixed stringer of walleye and smallmouth. Blue Ridge is good for these species.

On previous page, in an early morning mist, fisheries biologist prepares to conduct a cove sample to study population and species composition.

Button Gwinnett

By Susan Wood
Photos by Staff

Ga. 1776 1976

His signature is worth thousands of dollars. One of Georgia's signers of the Declaration of Independence, he was killed in a duel by an old enemy in 1777. However, some years later his burial place could not be found, and it was not until 1957 that his remains were discovered. An interesting character whose life is quite an enigma, his name was Button Gwinnett.

Born in England about the time Oglethorpe founded Georgia, Button Gwinnett began his career early, probably as an apprentice to his Uncle William, a merchant. At 22 he married Ann Bourne and entered into partnership with her father, a grocer. No one knows how long this partnership lasted.

The exact date Button Gwinnett arrived in Savannah isn't known. By 1765, however, Gwinnett had purchased (with borrowed funds) a general store in Savannah which he advertised in the *Georgia Gazette* in early October 1765. About a month later, Gwinnett became interested in the sale of St. Catherines Island. Gwinnett soon sold his store and became a planter on St. Catherines, 10 miles across the bay from Sunbury.

Button Gwinnett, it seems, was always in debt. He had begun borrowing heavily in 1759 to set up an exporting business before he left England. After that came more borrowing to purchase his Savannah general store. His money problems increased with the purchase of St. Catherines and, later, more land and many slaves. He never quite paid off his old debts before borrowing again and in the late 1760s began borrowing from new creditors to pay his old debts. In 1770 Gwinnett even began mortgaging his island.

His money crisis peaked in 1773 when creditors sold St. Catherines to pay Gwinnett's mounting debts. Through some arrangement, however, Gwinnett and his family were allowed to live on the island where a portion of his dormer-windowed house still stands.

None of these financial prob[lems] seemed to slow Button Gwinn[ett's] political rise. His life in politics b[e]gan in 1767 when he was na[med] Justice of the Peace in both [St.] Johns and St. Andrews Paris[hes] where he owned property.

In 1769 Gwinnett was elec[ted] representative from St. Johns Pa[rish] to the Commons House of As[sem]bly, the forerunner of the pre[sent] state House of Representatives. [The] Assembly convened on the last M[on]day in October 1769, but when t[he] day arrived Button Gwinnett w[as] not in Savannah to take his sea[t]. A week passed with still no sign of M[r.] Gwinnett, so the Speaker of the A[s]sembly issued a warrant for hi[s] rest. On November 14, a messe[nger] arrived with Gwinnett in tow, G[w]innett explaining that he had bee[n] The incident did not dim the res[pect] and confidence his fellow represen[ta]tives had in him, for the next d[ay] he was appointed to an impo[rtant]

-man eommittee whieh was to up with a plan to prevent steal- f cattle and horses.

it Button Gwinnett did not learn esson. In October 1771, when Assembly reconvened after a ner reeess, Gwinnett was absent . By February 20 he had still appeared nor had he sent a age of explanation, so the er again issued a warrant for nett's arrest. However, Royal rnor James Wright dissolved Assembly two days later, so the messenger returned with nett, there was no Assembly to t to.

ter this, Gwinnett retired from c life for a few years, his time consumed with his financial ems.

orgia was the youngest, poor- ost remote and least populated 13 colonies in the years before Revolution and was late in ex- ng any of the Revolutionary of the northern colonies. In some say it was only because of patriotic people in St. Johns that Georgia even partici- at all.

July 4, 1775, the first Pro- l Congress of Georgia met, osed of men from St. Johns . Lyman Hall was there, along Archibald Bulloch, John Hous- Noble Wymberly Jones and ev. Dr. John Joachim Zubley, sbyterian minister who later l Loyalist and left the Con- At first Button Gwinnett took tive part in the Congress, being ught up in his personal prob- o feel any patriotic spirit.

on February 2, 1776, the ncial Congress elected John oun, Archibald Bulloch, Ly- Hall, George Walton and But- winnett to serve as Georgia's l delegates to the Continental ess in Philadelphia. Lyman was already serving as Geor- unofficial delegate. With this itment, Button Gwinnett be- a new man, a Revolutionary t.

was about this time that Button nett and a Scotsman, Lachlan osh, first clashed. Gwinnett had been an aetive eandidate for the post of commander of Georgia's battalion of eight troops. There was, however, some opposition to his appointment, so to avoid controversy he withdrew when offered the post of delegate to the Continental Congress. Who *did* get the position Gwinnett had coveted? Laehlan McIntosh. This was the beginning of the enmity whieh eventually killed Gwinnett.

While in the Continental Congress, Gwinnett served on many important committees. For instance, he was appointed to the committee to draft the historic Articles of Confederation.

But without question, the most outstanding act of Button Gwinnett's political life was his working for and signing the Declaration of Independence. Many historians feel that it was Button Gwinnett, not Lyman Hall, who provided the power and eloquence of the Georgia delegation in the three-day debate over the introduction of "certain resolutions respecting independency." No record exists of most of the crucial debates in the Continental Congress. Contrary to history lessons, July 2, not July 4, was the day the American colonies declared their independence. On July 3 and July 4, the Committee of the Whole House debated the wording of the declaration, and on July 4 Thomas Jefferson asked each member present to sign this new Declaration of Independence which had been written on *paper*. This original document has never been found. The copy of the Declaration of Independence whieh is on exhibit in the Library of Congress in Washington is written on *parchment*, not paper. It seems that on July 19, 1776, Congress resolved that the Declaration be engrossed ". . . on parehment with the title and stile of 'The Unanimous Deelaration of the Thirteen United States of America'. . . ." This parchment copy was actually signed August 2.

After signing the Declaration on that day, Button Gwinnett left Philadelphia for his month-long return trip to Savannah. Gwinnett still wanted to be a great military leader, not having forgotten his loss to Lachlan McIntosh. Since Gwinnett and Lyman Hall had seeured authorization from the Continental Congress for two more continental regiments in Georgia, plus two companies of artillery and a regiment of rangers, Gwinnett wanted a post as commander of one of these new regiments. But before he arrived in Savannah, George Walton and other members of the Continental Congress contrived to have William Moultrie, Christopher Gadsden and, yes, Lachlan McIntosh appointed to the posts of brigadier general. This gave Gwinnett further reason to despise McIntosh.

On returning to Georgia, Gwinnett instituted plans to set up a strong state government as authorized by the Continental Congress. Before his return, it was even rumored that Gwinnett was returning to oust Archibald Bulloch from his position as president of Georgia.

So in October 1776, Georgia's first Constitutional Convention met in Savannah. Though no complete record remains, it is known that Button Gwinnett was elected speaker of the Convention. And historians agree that Gwinnett did the major work in drafting that first Constitution, which was adopted February 5, 1777.

In February 1777, while work was still continuing on the Constitution, President Archibald Bulloeh died suddenly, mysteriously. Rumor had it that he was poisoned. The Exeeutive Council, which had been formed by Bulloch the year before, appointed Button Gwinnett as interim president and commander-in-chief of the state's army.

While in this position of power and at a time when the British were encroaching on Georgia's southern border, Button Gwinnett, on advice of his Council of Safety, ordered an expedition to capture East Florida. But instead of entrusting eommand of the expedition to the ranking military officer, Lachlan McIntosh, Gwinnett determined to lead the venture himself. As commander-in-chief, Gwinnett could legally do this, but he had an ulterior motive—to

embarrass McIntosh by not consulting him about the expedition. Gwinnett wanted to be the one to give orders to Gen. McIntosh. The entire expedition was a dismal failure due partially to lack of cooperation from McIntosh and the men who were loyal to him.

About the same time, in mid-March 1777, Gwinnett received a letter from John Hancock, president of the Continental Congress, stating that a letter from Patrick Tonyn, governor of East Florida, had been intercepted. That letter gave evidence that George McIntosh, a member of Georgia's Congress and brother of Lachlan McIntosh, was guilty of treason for shipping supplies to British troops in Florida.

George McIntosh had crossed paths with Button Gwinnett before. On March 4 of that year, as a member of the Assembly, George McIntosh had refused to sign Gwinnett's commission as interim president, saying that Gwinnett was the last person in the world he would choose. This "proof" of McIntosh's treason was just what Gwinnett needed to get revenge. Unable to get a quorum of the Assembly, Gwinnett immediately ordered McIntosh to the common jail. When the Assembly did reconvene, they ordered McIntosh released. But Gwinnett had only begun to get his revenge. This treason charge against his brother had tarnished Lachlan McIntosh's reputation as well, and Gwinnett ordered him relieved of his command of Georgia's troops.

In May 1777, the first Assembly under the new state Constitution met and elected as governor John Adam Treutlen. This was the first time the term "governor" was used in Georgia. As a delegate to the Continental Congress, Button Gwinnett was also entitled to a seat in the state's Assembly. The controversy over the McIntosh affair was still a topic of concern, although the majority of people had completely lost confidence in the integrity of Lachlan McIntosh. Word spread through the colony that Lachlan had been involved with his brother George in supplying food to the British in Florida and that Lachlan profited greatly from the venture.

A portion of this house on St. Catherines Island was once owned by Button Gwinnett. In 1765 Gwinnett purchased the island from Thomas Bosomworth and his wife, Mary Musgrove, the Cherokee who aided Oglethorpe when he landed on Yamacraw Bluff in 1733. Though his island was sold in 1773 to p his debts, Gwinnett continued to live here.

The new Assembly agreed to hear both McIntosh and Gwinnett state their cases and on May 15 concluded that Button Gwinnett was right in stripping Lachlan McIntosh of his command. This was more than McIntosh could stand. He rose and in the presence of the entire Assembly called Gwinnett "a scoundrel and a lying rascal." When neither the speaker of the Assembly, Noble Wymberly Jones, nor any other members called McIntosh to order or reprimanded him, Gwinnett felt there was no other course open to him than to challenge McIntosh to a duel. The celebrated Gwinnett-McIntosh duel was among the first of many such political duels to take place in Georgia.

Gwinnett quickly wrote a note to McIntosh challenging him to a meet before sunrise the next day, Friday, May 16. It is said that McIntosh replied sarcastically that "although the hour was earlier than he was accustomed to rising," he would meet Mr. Gwinnett.

At the appointed hour, the two met outside Savannah, accompanied by friends and onlookers. When asked what distance he desired, Gwinnett replied boldly, "Whatever distance the General pleases." It was finally decided that they stand o 10 feet apart. When someone s gested that the enemies mark th paces back to back, then whirl a fire, McIntosh objected, "By means. Let us see what we about."

The two fired simultaneously, a Gwinnett fell to the ground cryi "My thigh is broken." His left th was, indeed, broken. McIntosh v wounded in "the thick of the le but remained standing and asked Gwinnett would like to have anotl shot. Never giving up, Gwinnett s he would if others would help h up. His friends refused his reques

As the weather was hot a humid amid the swamps, gangre set in. Button Gwinnett died th days later, May 19, 1777. McInto was confined to bed for seve months but finally recovered.

Apparently neither man rea meant to kill the other. Each co have, the distance between th being a scant 10 feet. Either b were terrible marksmen, which unlikely, or both aimed low to me ly wound the other. It is said t McIntosh was actually quite desp dent over Gwinnett's death whi was officially attributed to the tending doctor's lack of skill. At a rate, Mrs. Gwinnett later decla McIntosh "totally innocent a

meless" in her husband's death.

What happened to Gwinnett's ly after his death remained a stery for decades. There could be nd no official record of his fu- al nor his burial place, and by 8, any gravestone that might e marked the burial site had dis- eared. In the late 1950s, how- r, thanks to the late Arthur J. ık, Gwinnett's remains and burial ce were discovered in Savannah what was Christ Church Ceme- , now called Colonial Park. The y of the discovery is fascinating tself.

n 1957 Funk, a retired educator , later, state representative from annah, unearthed a gravestone ch he believed must have marked burial place of Button Gwinnett. ıe had erased the hard evi- ce to back up Funk's claim. The ıe on the weathered gravestone, ıd beneath the dirt, had been ed by time and weather, but visi- on the marker were several Ts 7s as if the stonecutter had ticed these most repeated letters "Button Gwinnett, 1735 - 1777." urther evidence turned up a left h bone with a hole through it— ble that a pistol ball might make. eral other clues seemed to sub- tiate the claim, but the Smith- ian Institute in Washington, D.C. udiated it.

Nevertheless, in October 1959, mayor and aldermen of Savan- formally recognized Colonial k as the burial place of Button innett. But the story didn't end e.

When Gwinnett's remains were ıd—or probably found—a bat- ensued between the cities of Sa- nah and Augusta over where ton Gwinnett should be reburied. 1848 the city of Augusta had ed the bodies of Lyman Hall and rge Walton to a site near the ent Augusta-Richmond County nicipal Building and placed a ument there honoring the Geor- signers of the Declaration of pendence. Augustans felt that s was the most appropriate place Button Gwinnett to be reburied. annah citizens heartily disagreed,

In Savannah's Colonial Park this 15-foot marble monument now marks the site of Button Gwinnett's burial place. Erected in 1964, seven years after Gwinnett's purported remains were discovered by Arthur J. Funk of Savannah, the memorial is inscribed with a reproduction of Gwinnett's famous signature.

believing that Gwinnett should remain where he was originally buried. This dispute continued for several years, along with the debate over the authenticity of the bones. During these seven years, the remains were kept in a copper-lined oak box. In October 1964, Button Gwinnett was reburied in Colonial Park; a 15-foot Greek Revival monument now marks the site.

Because of its rarity, Gwinnett's signature is worth thousands of dollars. In January 1926, his autograph brought $22,500 in a New York auction. The year before, another Gwinnett autograph had brought $14,000. But the largest amount paid for the signature of this "harsh, ambitious man" was $52,000, the highest ever paid for any signature.

It has been said that Button Gwinnett's zeal for his country was marred by bitter personal jealousy and hatred. Perhaps this is true. But he was a patriot still.

SPIDERS

Friends, not Enemies

)r. James R. Howell
gia Experiment Station
riment, Georgia

os by the Author

mong the most remarkable wonders of re are the small, eight-legged creatures we spiders. Beautifully colored, they have strik- habits and complex life histories, but are om noticed by the casual observer. Spiders ıot insects and should not be confused with ı, for spiders have eight legs instead of six, have neither compound eyes nor antennae. are predacious and for their tiny size are ly skilled and extremely efficient. Spiders nstrumental in keeping hordes of harmful ts in check. Their numbers are estimated to out 50,000 per acre in grassy habitats, and lifetime they destroy many times their num- n insects and other small creatures.

ne belief that all spiders are poisonous gives amazing animals an ill-deserved reputa- Spiders are generally harmless to man and, ughout the world, only a handful are con- ed dangerous. In Georgia two small groups, lack widow spider and the brown recluse r and its kin, are of medical importance.

ne southern black widow is common ughout Georgia in places such as trash piles, ps, under stones or logs, in outdoor privies is common under overhanging roadbanks n water meter boxes. This spider is usually d in an inverted position near the center of regularly tangled web made of coarse silk. easily identifiable by the red hourglass ing found on its underside.

ıe brown recluse spider is more common eorgia than was previously believed. It is ntly known in 13 counties and is sus- d to be in many more. The bite of this es produces a necrotic sore that is slow al. The spider is brown to brownish grey, a definite fiddle-shaped marking on the just behind the eyes. It shies away from and is usually found where darkness is the rule. When homes are invaded, the recluse is found beneath or behind furniture, behind pic- ture frames and in the backs of closets.

Because of a few species like the black widow and brown recluse (both of which are easily recognizable) man has come to regard spiders as loathsome creatures to be shunned and avoided. Spiders, however, are generally benefi- cial, interesting animals whose complex be- havior and life histories offer endless fascination to observers. Spiders can generally be divided into two superficial groups: those that construct webs for prey capture and those that actually hunt their prey.

Web-building spiders come in a multitude of shapes and sizes, and the structures of their webs are equally variable. Argiopids, or orb-weaving spiders, spin circular, geometrical webs which ensnare jumping or flying insects. The spider usually sits either in the center of its web or in a retreat some distance from the snare. When an insect becomes entangled in the web, it thrashes about in an attempt to escape, causing vibrations which are sensed by the spider. The spider rushes out, bites the struggling insect and wraps it in a cocoon of silk. This silk is produced by special glands at the posterior of the body and is applied by the hind legs.

Theridiids, or comb-footed spiders (so called because of a comb-like structure made of modi-

A crab spider.

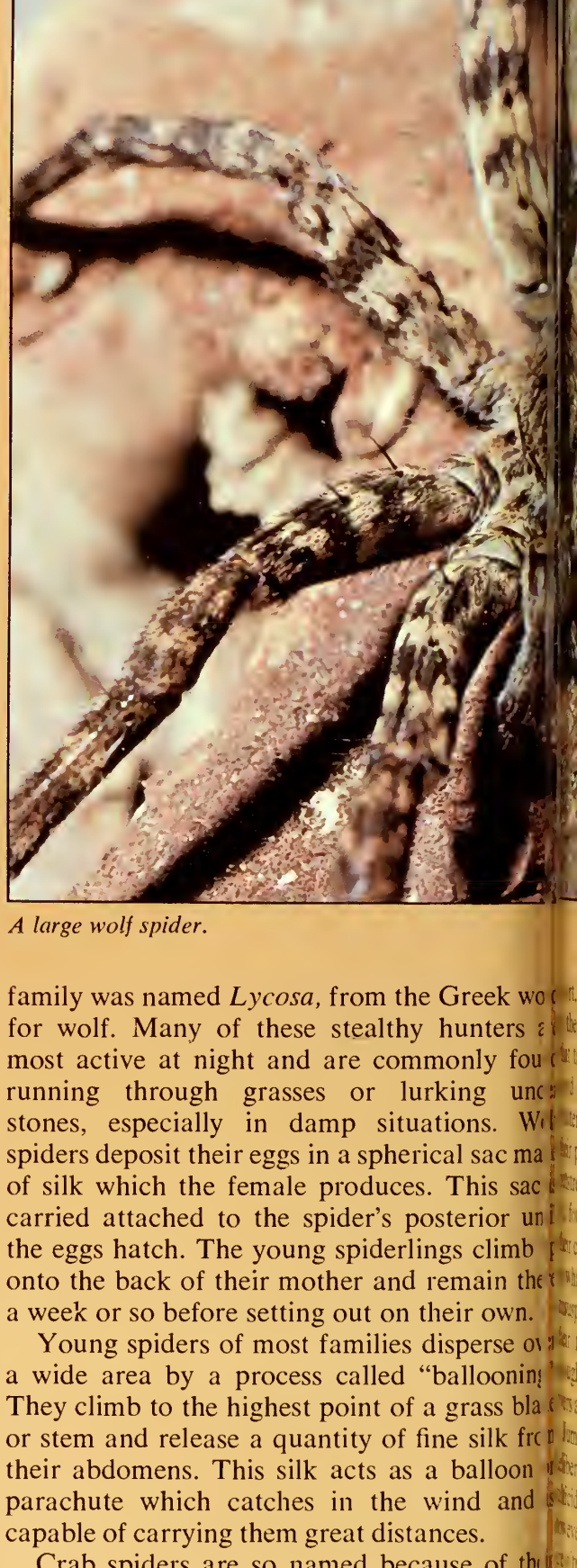
fied hairs on each hind leg), hang upside down in the center of irregularly shaped webs which have strands of silk running in all directions. These spiders usually completely wrap their prey before approaching close enough to bite it. The victim is then dragged to the center of the web to be consumed at the leisure of its assailant. One species, the common house spider, is responsible for many of the cobwebs found in and around the home. The black widow is also a member of this family.

Agelenids, or grass spiders, spin a platform-like web over low vegetation. One common species builds its web in the outside corners of windows. They have a silken retreat at one end of this flat sheet in which they wait until some small organism becomes tangled in their sticky snare. The spider then rushes out, bites the victim and carries it down the retreat to be fed upon. They also scurry down this silken tube to safety when frightened. The webs of grass spiders are particularly noticeable in lawns and other open areas during the early morning hours while the dew is still clinging to them.

Hunting spiders do not use webs for prey capture. Wolf spiders, lynx spiders, jumping spiders and crab spiders are all common hunters, and are all appropriately named for some intriguing aspect of their appearance or behavior. Each of these groups has developed its own unique hunting habits.

Some of our largest and most common hunters belong to the family Lycosidae, or wolf spiders. Members of this group chase their prey, and for this reason the typical genus of the

A female wolf spider, carrying young on her back.



A large wolf spider.

family was named *Lycosa,* from the Greek wo for wolf. Many of these stealthy hunters a most active at night and are commonly fou running through grasses or lurking unc stones, especially in damp situations. W spiders deposit their eggs in a spherical sac ma of silk which the female produces. This sac carried attached to the spider's posterior un the eggs hatch. The young spiderlings climb onto the back of their mother and remain the a week or so before setting out on their own.

Young spiders of most families disperse ov a wide area by a process called "balloonin They climb to the highest point of a grass bla or stem and release a quantity of fine silk fr their abdomens. This silk acts as a balloon parachute which catches in the wind and capable of carrying them great distances.

Crab spiders are so named because of th

t, broad body form, the crab-like attitude
ıe legs of most species and the curious fact
they walk most readily sideways or back-
d rather than forward. Unlike many other
ters, most crab spiders do not actively pursue
prey but wait quietly with their front legs
tretched. These interesting little creatures
found in flower heads and in bark crevices,
colors often corresponding to the substrate
hich they live. They wait motionless until an
ıspecting insect wanders within reach of
front legs. When a victim draws near
ıgh the legs snap shut and the predator de-
s a lethal bite.

ımping spiders, or salticids, are very active,
ɔerate hunters. Like most other spiders, the
cids have eight simple eyes. Two of them,
ever, are much larger than the others and
situated on the front of the head. As you

would suspect from the size of these enlarged "spotlight" eyes, jumping spiders are possessed with excellent vision, and some species can perceive images as far away as 10 or 12 inches — an astounding distance for spiders. In stalking their prey, jumping spiders approach slowly to within a short distance, then make a sudden jump, seizing the prey with their front legs and sinking their fangs into the victim's body. For their size, these little jumpers can leap prodigious distances. Some species can jump 30 to 40 times their own body length.

Jumping spiders produce tightly woven cocoons of silk on the underside of leaves or loose bark, and within this encasement the female lays her eggs. Upon hatching, the young spiderlings remain in their silken nursery for several weeks before setting forth into the new world.

Spiders will always be an important part of man's surroundings, but the beauty that is theirs will only be seen and appreciated by a few. For those who are interested in learning more about these creatures, the only requirements are a little free time and the willingness to observe.

A brown recluse spider.

A Crow in Baseball Clothes

Bill Morehead

t by Dale Cochran

If ever there was a bird who deserved grudg- respect, it is *Cyanocitta cristata cristata,* the e Jay. Also known as Corn Thief, Nest Rob- and Blue Coat, this high-fashion dandy is rt, quick and sassy. He certainly gets a lot nings done—even if most are things you can vithout.

The Blue Jay is a member of the family vidae, which also includes the ravens and crows. I once heard a fellow say, "A Blue ain't nothin' but a crow in baseball clothes." etime back I learned that it wasn't an origi- saying, but was borrowed from James Whit- b Riley's "Knee Deep in June."

"Mr. Blue Jay, Full o' sass,
in them base-ball clothes of his,
Sportin' round the orchard jes'
like he owned the premises."

Some say that the Blue Jay, along with his ins the crow and the magpie, have the great- enses of humor in the world of birds. If so, it sarcastic humor.

e is an accomplished practical joker. Has e ever been a squirrel hunter who hasn't mis- n the antics of a Blue Jay for the rustling squirrel amongst the hickory leaves? There squirrel hunters who swear the Blue Jay this on purpose.

as there ever been a deer hunter who hasn't ed to move silently through the woods, only e ambushed by a flock of jays and scolded e way to his deer stand?

And has there ever been a backyard bird feeder that wasn't completely dominated and controlled by the neighborhood Blue Coats? If there are enough of them they'll even drive off the squirrels who sneak in from time to time to freeload.

Nobody is all bad, however, even Mr. Blue Jay. When he thinks he isn't being watched, he'll often give off a melodious, silver bell-note that sounds as unlike the *shrief! shrief!* of his normal call as anything you can imagine.

Blue Jays, like crows, can do pretty good imitations of other birds. I have seen and heard one imitate a male cardinal, and I have read of their imitation of hawks. Some say they are ventriloquists and can "throw" the sound of a squirrel.

As nasty as he is as a cradle-robber, he is an assiduous parent. Let an owl or crow come anywhere near his nest and he will raise mortal cane. Let the other bird come too close, and he will attack without fear for his life. Unfortunately, the concept of family goes no further than his own mate and brood. Other Blue Jay young are to be preyed upon, just as is anything else he can get away with.

Blue Jays are notorious thieves, in a class with any Canadian Magpie. I once knew a farm family who attempted to protect the cherries of a young tree with strings of Christmas tree foil. In no time both the cherries and foil disappeared, the foil to show up for several years in the fallen nests in an adjoining pecan orchard. (Did the nests fall because other Jays preyed upon them?)

Yet even this thievery has some beneficial side effects. The Blue Jay also "steals" acorns and other nuts, some of which fall to the ground. The Blue Jay may be an important reforestry agent—something I suspect the Blue Jay would be chagrined to know.

There is no doubt about it—the Blue Jay is a well-dressed, fancy scoundrel. As one writer said, "He has all the mischievous, destructive thieving traits of the crow, with a lot of audacity or 'cheek' thrown in for good measure."

A scoundrel—but still deserving of respect, even admiration. For he has survived and prospered during man's progress. He is good at survival and, like some people, even if he is only 50 percent as good as he thinks he is—he is still darn good.

Jarrell Plantati

In the not too distant past, Georgia was an agricultural state and the basic unit of this system was the family farm such as the Jarrell Plantation. This historic site near Forsyth, acquired through the Heritage Trust Program, is typical of the many similar farms which dotted the state from 1840-1940.

For more than a century the Jarrell family

worked and played, lived and died on this farm. Their jobs, their homes, their entire lives, were inseparable from their land.

A mill complex, a blacksmith shop, barns, and three family dwellings are among many structures that allowed this farm to be almost self-sustaining. The Jarrells grew their own food, built their homes, sold and traded products of their mills and fields. Through the generations they kept many of the things required to run a large farm and to sustain the family that lived on it. Because they preserved so much of their heritage, visitors to the site can travel into the past — and with a bit of imagination, see Jarrell Plantation as it evolved from the 19th century.

ROOKERY

By Ron Odom

Photos by the Author

A white ibis.

As I watch from a perch on the crest of an old sand dune, the scene in the tangled swamp below is unforgettable. The partially submerged trees and shrubs, growing over the stagnant pool of fresh water, teem with bird life. Thousands of graceful herons, egrets and ibis congregate here to rear new generations of young birds.

The darkly stained water provides an excellent background for the bright colors of spring emerging above. Large patches of pale green duckweed float lazily on the water near the heart of the swamp, giving way to emergent vegetation such as pickerelweed and arrowhead around the perimeter. Scattered blooms from the pickerelweed frame the entire rookery in blue. Willows, buttonbush, myrtle and cabbage palm dominate the shrub layer and provide nesting sites for the thousands of wading birds, some of which have now detected our presence and are circling over the rookery. Many of the flying adults begin to light in the tops of a broad expanse of pines, live oaks and underbrush thickets which surrounds the 30-acre swamp. The swamp appears to be absolutely impassable.

The treetops surrounding the rookery are dotted with hundreds of adult birds, mostly common egrets with their snowy white plumage clearly visible against the dark green background of the loblolly pine. Beautiful, long flowing plumes adorn the egrets' backs during breeding season and flutter in the gentle, warm south wind.

Dense clusters of frail nests dot the shrub vegetation, causing branches to droop from the weight of their burdens. The nests, the branches

and the water below are heavily stained. Young herons instinctively attempt to void their wastes over the side of the nest and are only partially successful. Additionally, frightened young birds have a habit of regurgitating their last meal—regardless of who or what is sloshing under the nests. This products a foul smell, making one wish he were wearing a gas mask, helmet and raincoat. Eggs are visible in many of the nests, as are young. How do the birds avoid confusion and mix-ups in such a dense nesting situation?

As we walk down the dune to the water's edge, a huge cottonmouth is aroused from his place in the sun and slithers through the mat of water pennywort toward open water. As we watch him disappear a lively discussion begins on the merits of wading through this particular rookery, and we decide that perhaps we should enter the water about 40 yards to the north. The trees are full of scrambling and fluttering young, with both young and adults croaking and squawking in a manner not easily described or forgotten. Alexander Wilson in 1832 compared the noise to "that of 200-300 Indians choking or throttling each other."

An even more violent disturbance occurs t ward the middle of the pond where my binoc lars pick up a quarrel between a young nig heron and young common egret. The quarrel about which bird is to remain perched on a pa ticular branch. The common egret chick los the battle abruptly and tumbles 12 feet the murky water. He thrashes momentarily a begins to swim toward the base of the tree begin another assault on the night heron. Su denly the egret chick disappears only to appear some 30 seconds later, lifeless—da gling from the mouth of an eight-foot alligat As the gator moves slowly to the far bank w his prey, we are reminded of the continuc struggle for survival on the part of these ma nificent birds. Predation is common in th large rookeries. Occasionally birds have be known to eat each other. The more comm predators are crows, snakes, raccoons, mink a hawks. In addition to the many predators, frail, poorly constructed nests are extrem vulnerable in severe weather, especially ne which are built low in the marsh grass. La

Common egrets and young (upper rig

mbers of nests and young have been lost to gh water during the annual spring tides.

Although major nesting areas along our coast pear to be secure and well-protected at this ne, our wading birds are not without probns. Predators, such as the alligator, are an er-present danger. Good, secure nesting areas e not necessarily good feeding sites. Adult rds, continually trying to satisfy voracious appetites of their young, often need to fly miles to d suitable feeding areas.

The site described above is typical of the ger rookeries on some of Georgia's coastal rrier islands. A visit to one of these rookeries n be a very rewarding and interesting experice—provided one can stand the nauseating ors, filth, ticks, redbugs, mosquitoes, flies, iars, poison ivy, cottonmouths and alligators.

Last summer the Game and Fish Division, in operation with the Fish and Wildlife Service, rveyed the Georgia coast for wading bird okeries. Rookeries were located by air, and veral visits on foot were made to each, recordg biological data. The survey located 25 ace rookeries east of I-95. Rookery size varied m approximately 20 great blue herons nesting the tops of pines on a small hammock, to proximately 6000-7000 birds representing six ferent species nesting on a small marsh island the Satilla River. Rookeries of 50,000 birds ve been located in other states along the Atitic coast. Most of Georgia's larger rookeries were found on barrier islands, while other rookeries occurred on the smaller hammocks between the barrier islands and the mainland.

Peak numbers of birds present in these 25 rookeries on any one visit represented approximately 18,000 birds. The total nesting population was comprised of white ibis, great egret, Louisiana heron, snowy egret, cattle egret, black-crowned night heron, green heron, little blue heron, glossy ibis, yellow-crowned night heron, anhinga and great blue heron.

Although Georgia's wading bird population is small when compared to that of Florida or South Carolina, significant numbers of birds are produced in this state's rookeries. Further, Georgia's major nesting sites appear secure since ownership is either by the federal or state governments or by responsible, conservation-minded private owners. Although there are other environmental threats to Georgia's wading birds, the threats are not as serious as in many other states. But we must recognize that additional development of our coast is inevitable.

If we carefully plan this expansion of our human population in ways that are compatible with coastal wildlife populations, future generations may also be able to experience the sights and sounds of a Georgia rookery.

Young night herons.

BIG FISH CONTEST

By Aaron Pass

A new record bass is perhaps the biggest story for 1975. On April 9, 1975, Jimmy Rogers of Thomaston pulled a 7 lb. 8 oz. bass from the mouth of Lazer Creek, near the Flint River. This fish was identified, and besides setting a new state and world record, it changed the name of a contest category. Rogers' state record is listed as a "Shoal Bass," that name replacing the "Flint River Bass" in the contest.

The reason is complex but worthy of explanation. The redeye bass, *Micropterus coosae* is a stream dwelling bass of rather small size. A larger bass native to streams in the Apalachicola River Drainage (which includes the Chattahoochee and Flint Rivers in Georgia) has heretofore been classified as a subspecies of the redeye. Called the "Flint River Smallmouth" or simply "Flint River Bass," this fish is currently under study as a completely different species of bass. This taxonomic work is not yet complete, so the fish is now being called an "undescribed" species. Since the fish occurs in other rivers in Georgia and Alabama, "Shoal Bass" is currently being used as a general term for this fish in the Georgia contest. The *Field & Stream* magazine contest does not yet make this distinction and lists Mr. Rogers' bass as a world record redeye. The same fish is a record by any name.

The overall black bass winner in this year's contest was a largemouth caught by Zeke Rhodes. It weighed 14 lbs. 14 oz. and will win Rhodes the Garcia 5000 rod and reel and an inscription on the Garcia Bass Trophy for first prize in the category.

While he doesn't win any prizes for his 10 lb. 5 oz. bass, Robert Moore has the best story in this year's contest. Seems that his fish got caught in some willow brush and couldn't get loose. Moore then talked his brother, Reggie, into swimming over to get the fish—in mid-March. That must have been some conversation.

The other category of the Garcia prize division is for sunfish, and this year's rod and reel goes to Terry Sapp of Macon for his shellcracker, caught in the Ocmulgee River. The fish weighed 3 lbs. 6 oz. and is another new state record.

Rod and reel outfits from Pflueger go to winners in two other categories. The white bass winner, Jack D. Wood with a 3 lb. 13 oz. fish from Lake Hartwell, also gets his name on the Pflueger trophy. Tops in trout was Glad Anderson with a 10 lb. 8 oz. rainbow from Waters Creek.

Other state records were also challenged. Steve Cheek, East Point took black crappie honors with a 4 lb. 4 oz. fish from Lake Spivey. This fish ties the current state record for this species caught by Shirley Lavender in 1971. Drew Dorminy of Wayeross set a new-old record for redbreast. Dorminy caught his 1 lb. 4 oz. fish on the Satilla River in 1972, but at that time the minimum weight for entrance was 1½ lbs. This minimum weight was changed last year to 1¼ lbs. to stimulate entries in the category. Lucky for Dorminy that no one beat his previous recorded fish during the past year.

In addition to the prize category winners, Garcia and Pflueger rod and reel outfits go to all new state record holders. Certificates will go to all entrants whose fish surpass the minimum entrance weights.

The Georgia Big Fish Contest is annually sponsored by the Georgia Wildlife Federation and by *Outdoors in Georgia* magazine. Prizes are provided courtesy of the Garcia and Pflueger Corporations.

The contest has two main purposes: to develop a documented freshwater record list for the state and to provide recognition for successful anglers.

1975 Contest Winners

rgemouthBass—Garcia Trophy
ke Rhodes—14-14/Private Pond, April 6, 1975
C. Thomas—13-8/Private Pond, March 17, 1975
nny Evans—12-0/Lake Notteley, July 30, 1975
wis M. Hicks—10-8/Crow's Lake, March 20, 1975
bert Moore—10-5/Ogeechee River, March 14, 1975
M. Dickie—10-4/Carmichael's Lake, July 1, 1975

otted Bass—no entries

osa Bass—no entries

bal Bass (formerly Flint River Bass)
Jmmy L. Rogers—7-8/Flint River, April 9, 1975
ss Everitt—6-11/Flint River, December 10, 1975

allmouth Bass—no entries

hite Bass—Pflueger Trophy
k D. Wood—3-13/Lake Hartwell, March 23, 1975
ry L. Andrews—3-12/Oconee River, November 2, 1975

Striped Bass
Jack McGinnis—30-8/Lake Burton, April 7, 1975
William W. Ball—21-12/Flint River, February 4, 1975

Bluegill
John L. Sikes—2-0/Canoochee River, June 12, 1975
Martha Sapp—1-14/Evans County, April 2, 1975

Redear Sunfish—(Shellcracker)
*Terry Sapp—3-6/Ocmulgee River, July 3, 1975
Greg Taylor—3-0/Lake Burton, May 21, 1975

Redbreast Sunfish
*Drew Dorminy—1-4/Satilla River, October 13, 1972

Warmouth—no entries

Black Crappie
*Steve Cheek—4-4/Lake Spivey, March 6, 1975

White Crappie—no entries.

Brook Trout
Ronnie S. Phillips—4-0 (18 in.)/Waters Creek, June 1, 1975

Rainbow Trout
Glad Anderson—10-8 (27⅛ in.)/Waters Creek, September 8, 1975

Brown Trout
Ben Harper—9-0 (23 in.)/Chattahoochee River, June 30, 1975
James Bailey—8-12 (28 in.)/Rock Creek, August 20, 1975
Gary Fowler—7-12 (24 in.)/Lake Lanier, June 5, 1975
Juan Nix—4-0 (22⅝ in.)/Holly Creek, June 11, 1975

Yellow Perch—no entries

Walleye
Arnold Dyer—5-7/Lake Notteley, May 29, 1975

Channel Catfish
Toby Hicks—37-4/Broad River, April 18, 1975

Flathead Catfish—no entries

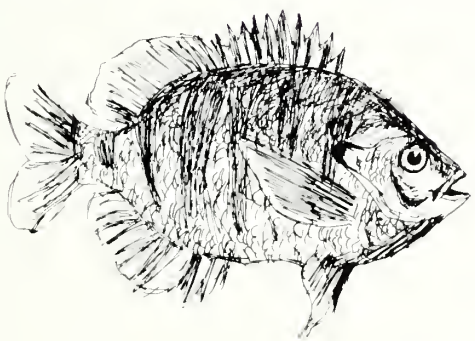
Muskellunge—no entries

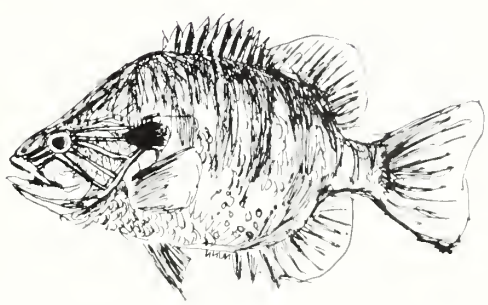
Chain Pickerel (Jack Fish)—no entries

Bowfin
R. L. DePratter—13-2/King's Lake, Satilla River, November 1, 1975

Carp—no entries

*1975 State Records.





Georgia Big Fish Contest Rules

1. Have the fish weighed, measured, ond entered ot any Game and Fish Division fisheries monogement office. If this is impassible, have the fish weighed on o certified scale in the presence of two witnesses. Bath witnesses and the awner of the scole (if not a witness) must pravide on oddress ond phone number. (If the fish is weighed and measured at o Game ond Fish Office, the verifying official should sign the blonk.)
2. Witnesses must be of legal oge, ond may not be members of the entrant's immediate family.
3. The truth of the entry blonk must be attested befare a qualified officer such os a notary public, justice af the peace, sheriff, municipal clerk, postmoster, member of o stote or local low enforcement ogency, or wildlife ronger.
4. If the fish is not weighed ond measured at a Game ond Fish office, the fish must be frozen whale ond maintained for 30 doys from the date of pastmork on the entry blonk. This is for identificotion purposes. At the expirotion of this 30-doy term the entrant may ossume thot there is no question, and moy dispose of the fish in whotever monner he desires.
5. No fish will be accepted as o state record unless verified by a Fisheries Biologist.
6. Mounted fish are not suitoble for identificotion. No potentiol state recard or contest winner will be verified ofter it has been mounted.
7. Judges reserve the right to inspect any fish entered in this cantest, ond the right to take ony fish to another authority far identification. Judges reserve the right to disqualify ony entry which does not fulfill the rules set forth.
8. The judges of this contest ore the Executive Director of the Georgia Wildlife Federation, the Wildlife Editor of **Outdoors in Georgio** mogozine, and Fisheries Biologists of the Gome and Fish Division of the Department of Notural Resaurces. Decisions af the judges shall be final.
9. Neither the Department of Noturol saurces, the Georgio Wildlife Federotion, ony of their designees will be responsible loss or domoge to fish entered in this cont
10. Contest prizes from Garcia and Pflue will be awarded annuolly to: the lor largemouth boss, white boss, bream, tr ond the holder of ony state record toker the contest yeor.
11. In case of multiple records in a si seoson, the lost record halder for thot will receive the prize. All recard-breaking tries will be identified ond the angler owor a certificote.
12. The name af the annual winners in largemauth ond white bass cantest, weight of their fish, ond date of catch wil inscribed on trophies kept ot the Atlonto c of the Deportment of Naturol Resources.
13. Fish cought after December 31 wil entered in the following yeor's contest. En should be made as soon as possible after fish is caught. The deadline is Jonuory 15
14. There is no entry fee.
15. Any ongler, resident or non-resident, holds a valid Georgio fishing license, enter the cantest by completing the of entry form.
16. Fish must be caught an sporting tc and be hooked and londed by the entra
17. Fish must be caught in the Stot Georgia during the legal angling seoso the species token, and in observonce o pertinent fishing lows ond regulations.
18. Any angler moy submit os mony e as he wishes. Certificates will be owarde oll fish surpassing the minimum standor the chart regardless af the yeor caught contest prizes will be owarded only i seoson immediately past. In the event of duplicate awards will be given.
19. A cleor, sideview, block-and-whi color photograph af the fish, preferobly the angler, must be submitted with each This phata becomes the praperty af **Out in Georgia.**
20. Affidavits should be moiled to Bi Contest, **Outdaars in Georgio**, Roam 71 Woshingtan Street, Atlanta, GA 3033

PRINT OR TYPE ALL INFORMATION

Kind of Fish_____ Weight _____ lbs. _____ ozs. Length _____ in.

Girth _____ in. Boit Used_____ Type Tackle_____

Where Caught (nome of lake or streom)_____

Location of Lake or Streom (county or neorest town)_____

Dote Cought_____

Angler_____

Home Address_____

City and State_____

Telephone Numbers: Business_____ Home_____

Fishing License Number:_____

"I hereby swear that the abave statements are true; thot in toking this fish I camplied with the contest rules and Georgia State Fishing Regulatians, ond thot the witnesses hereto sow this fish weighed and measured. I consent to the use af my name in connectian with the Geargia Big Fish Contest."

_____
(Signature of Angler)

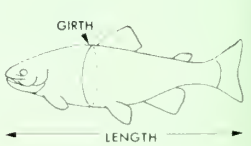
We, the undersigned, witnessed the weighing ond measuring of the fish described obave and verify the weight and measurements given.

1. Signature_____
   Address_____ Phone_____
2. Signoture_____
   Address_____ Phone_____
3. Owner of scole_____ Phone_____

Swarn ta ond ascribed befare me this _____ day of_____, 19_____

_____ Title:_____
(Signature of a qualified officer—see rule 3)

Send all entries ta: Outdoors in Georgia, Room 714, 270 Washingtan Street, Atlanta, GA 30334.



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

Region I & II

Rich Fatora, Supervisor
Robert Klant
Route 13, Box 322A
Gainesville, Georgia 30501
(404) 532-5301

Russ England
Burton Fish Hatchery
Route 1
Clarkesville, Georgia 30523
(404) 947-3112

Kim Primmer
Calhoun Office
P. O. Box 519
Calhoun, Georgia 30701
(404) 629-1259

Region III

Don Johnson, Supervisor
Tim Hess, Biologist
Route 2
Social Circle, Ga. 30279
(404) 557-2591

Royce Harrington
McDuffie Public Fishing Area
Route 1
Dearing, Ga. 30808
(404) 595-1619

Region IV

Wayne Thomaston, Supervisor
Les Ager
Route 3, Box 7A
Fort Valley, Ga. 31030
(912) 825-6354

Frank Ellis
Manchester Office
Post Office Box 152
Manchester, Ga. 31816
(404) 846-8448

Region V

Russ Ober
2024 Newton Road
Albany, Georgia 31701
(912) 439-4256

Paul Loska
Tom Scott
Steve Cocke Fish Hatchery
Dawson, Georgia 31742
(912) 995-4486

Region VI

Dan Holder, Supervisor
Jerry Germann
P.O. Drawer 1528
Waycross, Georgia 31501
(912) 283-6661

Mike Geihsler
Bowen Mill Hatchery
Route 1
Fitzgerald, Georgia 31750
(912) 423-2988

Jim Nix
Metter Office
P.O. Box 358
Metter, Georgia 31439
(912) 685-6424

Region VII

Carl Hall, Supervisor
John Hornsby
Demeries Creek Office
P.O. Box 86
Richmond Hill, Georgia 31324
(912) 727-2112

Bob Rees
Richmond Hill Hatchery
Richmond Hill, Georgia 31324
(912) 756-3691

Minimum Weight for Certificate		World's Record
10 lbs.	BASS, LARGEMOUTH 22 lbs., 4 ozs.—George Perry Brunswick, Mantgamery Lake, June 2, 1932 Secand—17 lbs., 14 czs.—Nickie Rich, Marietta, Chastain's Lake, April 27, 1965	22 lbs., 4 ozs.
5 lbs.	BASS, SPOTTED (KENTUCKY) 7 lbs., 12 azs.—Rabert Kincaid, Blue Ridge, Lake Nottely, March B, 1972	B lbs., 10½ ozs.
5 lbs.	BASS, SMALLMOUTH 7 lbs., 2 azs.—Jack Hall, Cleveland, TN, Lake Chatuge, March 2B, 1973	11 lbs., 15 azs.
5 lbs.	BASS, SHOAL (FORMERLY "FLINT RIVER" 7 lbs., B azs.—Jimmy Ragers, Thamasten, Flint River, April 9, 1975 This fish is listed as a warld record redeye bass, s Field & Stream daes not recognize the shoal ass as a separate species.	Na Recard*
2 lbs.	BASS, REDEYE (COOSA) 2 lbs., 10 azs.—John R. Cackburn, Jr., Dalton, Jacks River, July 4, 1967	6 lbs.,½ az.
3 lbs.	BASS, WHITE 5 lbs., 1 oz.—J. M. Hobbins, Atlanta, Lake Lanier, June 16, 1971	5 lbs., 5 ozs.
20 lbs.	BASS, STRIPED 63 lbs.—Kelley A. Ward, Dublin, Oconee River, May 30, 1967	72 lbs.
½ lbs.	BLUEGILL 3 lbs., 5 ozs.—P. F. Gumm, Atlanta, Shamrock Lake, July 19, 1972	4 lbs., 12 ozs.

Minimum Weight for Certificate		World's Record
2 lbs.	SUNFISH, REDEAR (SHELLCRACKER) 3 lbs., 6 azs.—Terry Sapp, Macon, Ocmulgee River, July 3, 1975	4 lbs., B ozs.
1¼ lbs.	SUNFISH REDBREAST 1 lb., 4 ozs.—Drew Dorminy, Waycrass, Satilla River October 13, 1972	Na Record
1 lb.	WARMOUTH 2 lbs.—Carltan Robbins, Sylvania, Private Pond, May 4, 1974	2 lbs.
3 lbs.	CRAPPIE, BLACK 4 lbs., 4 ozs.—Tie: Shirley Lavender, Athens, Acree's Lake, June 1, 1971 Steve Cheek, East Point, Lake Spivey, March, 1975	5 lbs.
3 lbs.	CRAPPIE, WHITE 4 lbs., 11 azs.—Lewis I. Little, Macan, Brickyard Lake, May 31, 1972	5 lbs., 3 ozs.
15" or 2 lbs.	TROUT, BROOK 5 lbs., 5 azs.—James Harper, Austell, Waters Creek, September 3, 1973	14 lbs., B azs.
18" ar 5 lbs.	TROUT, BROWN 1B lbs., 3 azs.—William M Lowery, Marietta, Rack Creek, May 6, 1967	39 lbs., B azs.
24" or 6 lbs.	TROUT, RAINBOW 12 lbs., 4 ozs.—John Whitaker, Ellijay, Coosawattee River, May 31, 1966	42 lbs., 2 ozs.
1½ lbs.	PERCH, YELLOW No Official State Record	4 lbs., 3½ azs.

Minimum Weight for Certificate		World's Record
5 lbs.	WALLEYE 11 lbs.—Steven Kenny, Atlanta, Lake Burtan, April 13, 1963	25 lbs.
15 lbs.	CATFISH, CHANNEL 4 lbs., 12 azs.—Bobby M. Smithwick, Vidalia, Altamaha River, May 1B, 1972	5B lbs.
15 lbs.	CATFISH, FLATHEAD 51 lbs., 15 azs.—Hoyt McDaniel, Suches, Lake Nattely, June 2, 1969	76 lbs.
Any Weight	MUSKELLUNGE 3B lbs.—Rube Galden, Atlanta, Blue Ridge Lake, June, 1957	69 lbs., 15 azs.
5 lbs.	PICKEREL, CHAIN (JACKFISH) 9 lbs., 6 azs.—Baxley McQuaig, Jr., Hamerville, February, 1961	9 lbs., 6 ozs.
B lbs.	BOWFIN 15 lbs., 12 ozs.—Tie: R. H. Meltan, Warner Rabins, Tchukolako Lake, September 29, 1973; John F. Maddox, Phenix City, AL, W. F. George, June 4, 1971	19 lbs., 12 azs.
20 lbs.	CARP 35 lbs., 12 ozs.—Rev. Danald Clark, Locust Grove, Lake Jacksan, 1972	55 lbs., 5 azs.
15 lbs.	GAR, LONG NOSE No Official State Record	50 lbs., 5 azs.

PARKS 1976

By Lonice Barrett

Photography by OIG Staff

Over 13 million people visited Georgia's parks and historic sites last year. Were you one of them? If not, here's hoping that during the "Summer of '76" you will discover many of the outstanding natural and cultural resources which Georgia has to offer in one of 40 active state parks and 11 active historic sites.

More than 40,000 acres of scenic and historically interesting park land and cultural features offer a wide array of leisure time fun and enjoyment which can be matched by few other states.

Let's take a quick trip around the parks and historic sites system and see just what the "Summer of '76" will bring.

There are more than 3,000 developed campsites, most of which contain electrical hookups, water and close-by comfort stations with showers and toilets. For the recreational vehicle (RV) camper, many of the sites offer 30-amp electrical circuits necessary to provide sufficient electricity for RVs.

Most state parks offer pioneer camping areas for organized groups such as scouts, church groups or other youth groups. There is no charge to use these areas, and most groups can be guaranteed a spot if they contact the park superintendent in advance.

Unicoi State Park has an interesting concept in camping known as the "Squirrel's Nest." Elevated platforms with overhead shelters provide an outdoor camping experience, but with some additional comforts to the camper in case of inclement weather.

The Parks and Historic Sites Division operates 11 group camps at various state parks. These camps include cabins or group lodges, dining facilities, outdoor recreation areas and other facilities. Inquiries about the group camps should be made directly to the individual park. Group camps are located at Indian Springs, A. H. Stephens, Franklin D. Roosevelt, Hard Labor Creek, Laura S. Walker, Kolomoki Mounds, Magnolia Springs, John Tanner, Little Ocmulgee and Will-A-Way Recreation Area for the Handicapped.

More than 230 cottages in state parks offer an opportunity for visitors to enjoy a week or even two in state parks without the necessity of bringing anything but themselves, their food and enthusiasm for enjoying the outdoors. The cottages have modern kitchens, and all utensils, linens and towels are provided. Requests for information or reservations should be made through the park office at individual parks.

Now let's talk about the activities you may enjoy during your visit.

Without a doubt the single greatest appeal to summer visitors to state parks is water. The Division operates 14 swimming pools and 14 beaches, each of which has qualified lifeguards on duty to assist park visitors. The Division also operates 10 state parks on major Corps of Engineer impoundments where there are no limitations on motorboat horsepower for motors; the park visitor can enjoy water skiing, fish

s ıing, sailing or other water activi-
e .

If golf is your game, three regu-
ıon golf courses are located at
l rd Labor Creek State Park near
ı tledge, Victoria Bryant State Park
e ır Royston and Little Ocmulgee
t te Park near McRae. Greens fee
› 18 holes is $4.00, and electric or
u l-type carts are available for
e t. There are also miniature golf
› ırses in 20 parks throughout the
a e.

Regarding fishing, the Parks and
i toric Sites Division works closely
i h the Game and Fish Division to
a nage its lakes and streams to pro-
c e good fishing for park visitors.
r m the mountain streams with
i ıbow trout to the tip of the coast
Crooked River State Park, fishing
ood in Georgia state parks. Be
ı e you have a valid Georgia fishing
c nse if you are between 16-65,
› vever.

Four state parks offer horse sta-
e and trails. These include Hard
a or Creek State Park, Franklin D.
o sevelt State Park, Georgia Vet-
a ıs State Park and a brand new
c lity at Red Top Mountain State
ı c. The Division does not rent
› es, but horse enthusiasts may
i g their horses to the stables and

Nature trails are one of the most popular aspects of the parks interpretive programs. Conducted by staff of naturalists, the walks include bird watching, plant identification and other resource oriented topics. Perhaps due to the current public interest in environmental matters all age groups are represented on most programs.

board them overnight for nominal fees.

There are over 70 developed picnic areas within the system. No charge is made for picnic tables, although a limited number of reserved shelters can be rented for reunions or other group activities.

Interpretive Programs

Upcoming during the "Summer of '76" will be an expanded interpretive program designed to involve visitors in organized activities to help them understand why the park or historic site was developed in the first place. Let's examine the programs that will be yours for the asking during the upcoming summer.

Seasonal Interpreters will be assigned to 16 parks and historic sites during the summer. It will be the responsibility of these interpreters to plan and direct organized activities on a scheduled basis including walks, talks, demonstrations, films and other interpretative activities in keeping with the natural or cultural features found on the site. Seasonal interpreters have been assigned to the following sites: Cloudland Canyon, Black Rock Mountain, Franklin D. Roosevelt, Hard Labor Creek, Panola Mountain, Providence Canyon, Skidaway Island,

State Parks Activities Chart	Camping	Cottages	Swimming	Picnicking	Group Camps	Golf Course	Fishing	Trails	Interpretive Program	Museum	Boat Ramp	Historic Feature	Drama Scheduled	Horse Stc
A. H. Stephens Memorial										●		●		
Amicalola Falls	●	●		●			●	●						
Black Rock Mountain	●	●		●				●						
James H. Floyd				●			●							
Bobby Brown	●		●	●			●	●			●			
Chattahoochee River				●			●	●						
Dahlonega Gold Museum										●		●		
Etowah Mounds									●	●		●		
Cloudland Canyon	●	●		●				●	●				●	
Crooked River	●	●	●	●			●	●			●		●	
Elijah Clark	●	●	●	●			●		●	●	●	●	●	
Fort King George										●		●		
Fort Mountain	●	●	●	●			●	●				●		
Fort Yargo	●		●	●	●		●				●	●	●	
Franklin D. Roosevelt	●	●	●	●	2		●	●	●	●	●		●	●
General Coffee	●			●			●				●			
George T. Bagby	●	●		●			●				●			
Fort McAllister									●	●		●		
Georgia Veterans Memorial	●	●	●	●			●			●	●			●
Gordonia Alatamaha	●		●	●			●							
Hamburg	●	●		●			●			●	●	●		
Hard Labor Creek	●	●	●	●	2	●	●	●	●		●		●	●
Hart	●	●	●	●			●				●			
High Falls	●		●	●			●	●			●	●		
Indian Springs	●	●	●	●	●		●	●		●	●	●	●	
John Tanner	●	●	●	●	●		●				●		●	
Jarrell Plantation									●	●		●		
Kolomoki Mounds	●		●	●	●		●			●	●	●		
Lapham-Patterson House										●		●		
Laura S. Walker	●		●	●	●		●				●			
Little Ocmulgee	●	●	●	●	●	●	●				●		●	
Magnolia Springs	●	●	●	●	●		●	●		●	●	●	●	
Mistletoe	●	●	●	●			●	●			●		●	
Moccasin Creek	●			●			●	●			●			
Panola Mountain				●				●	●	●				
Providence Canyon				●				●	●	●				
Red Top Mountain	●	●	●	●			●	●			●		●	●
Reed Bingham	●		●	●			●	●			●			
Reynoldsville				●			●				●			
Richmond Hill	●			●			●		●		●			
Seminole	●	●	●	●			●				●		●	
Skidaway Island	●		●	●			●		●					
Stephen C. Foster	●	●		●			●	●	●	●	●			
Tugaloo	●	●	●	●			●	●	●		●		●	
Victoria Bryant	●		●	●		●	●	●						
Vogel	●	●	●	●			●	●	●				●	
Watson Mill Bridge	●			●			●					●		
Unicoi	●	●	●	●			●	●	●				●	
Midwe / Museum										●		●		
New Echota										●		●		
Travel's Rest									●	●		●		
										●		●		

ephen C. Foster, Tugaloo, Vogel, c t McAllister - Richmond Hill, t wah Mounds, Jarrell Plantation, e w Echota and Traveler's Rest.

More than 60,000 people will use a e park group camps during the b oming summer. This year the a ks and Historic Sites Division will a e personnel whose responsibility o plan, organize and direct out- r recreation activities within the up camps on a scheduled basis. r y groups wishing to discuss the b sibility of scheduling special up camp programs should con- c the Recreation and Interpre- Programming Office within the a ks and Historic Sites Division or n tact the park superintendent at c r respective parks. These pro- a ns will include talks, demonstra- p s, naturalist programs or other c ial presentations.

Two historically-based dramas t n 48 performances are scheduled. n story of TOKALITTA is based h he theme of General Oglethorpe e Georgia's first colonists at Sa- r nah. THE VIGIL is about the g ndary figure, Nancy Hart, and e revolutionary days around Au- s a. There is no charge for the a s, and park visitors are encour- e to bring chairs or blankets to on while enjoying these two a as performed by DeKalb Col- g drama students.

There will be six weekends of special interpretive programs conducted on six parks where seasonal interpretive personnel are not regularly assigned. Such activity will consist of a Friday, Saturday, and Sunday schedule of activities. These will be scheduled in the following parks: Seminole, Fort Mountain, Little Ocmulgee, Mistletoe, Fort Yargo and Black Rock Mountain.

Three statewide special events have been scheduled: Orienteering Competition, July 9-11, at Hard Labor Creek; Pioneer Living, July 23-25, at Tugaloo State Park and Wilderness Experience, August 6-8, at Cloudland Canyon State Park. More publicity will be released on these activities at a later date, but those interested in these activities should mark their calendars now for these dates.

While much has been said thus far about state parks, Georgia has some truly outstanding historic sites which are reminders of our heritage, and these too offer many, many hours of recreation, enjoyment and education for many people each year. To spotlight these outstanding resources, one should be reminded of such sites as the Vann House, which is a restored and furnished home (1804) of a Cherokee Indian, James Vann. This site is located near Chatsworth and is considered to be the finest of the entire Cherokee nation.

One of the newest sites in the system is the Jarrell Plantation. This site is a seven acre working Piedmont farm complete with a blacksmith shop, grist mill, cotton gin and cane syrup evaporators. The farm offers a glimpse of Georgia's agricultural heritage and is located near Juliette, approximately 20 minutes off I-75 near Forsyth.

Fort McAllister Historic Site has a newly completed museum which tells the visitor about this outstanding site and the role it played in the Civil War. It is a very beautiful site and has nearby overnight facilities at Richmond Hill State Park.

There are other exciting and interesting historic sites within the system including the Alexander H. Stephens Memorial, Dahlonega Gold Museum, Etowah Mounds Archaeological Area, Fort King George, Lapham-Patterson House, Midway Museum, New Echota, Traveler's Rest, as well as three unmanned historic shrines.

Historic sites are open from 9:00 to 5:00 Tuesday through Saturday and on Sunday from 2:00 to 5:30.

Why not plan to enjoy an hour, a day or a week at one of your Georgia state parks or historic sites? There is no admission fee and the parks are open from 7:00 a.m. to 10:00 p.m.

A new brochure is available which explains in detail what Georgia has to offer throughout the parks and historic sites system. To get one, visit one of your nearby sites or contact the Public Relations and Information Office of the Department of Natural Resources.

Parks Program Schedule

JUNE 7 — LABOR DAY

Seasonal Interpreters Assigned to the following sites to plan and eonduet full-time summer programs from June 7-September 6.

1. Cloudland Canyon
2. Elijah Clark
3. F. D. Roosevelt
4. Hard Labor Creek
4. Hard Labor Creek
5. Panola Mountain
6. Providenee Canyon
7. Skidaway Island
8. Stephen C. Foster
9. Tugaloo
10. Vogel
11. Fort McAllister-Riehmond Hill
12. Etowah Mounds
13. Jarrell Plantation
14. New Eehota
15. Travelers Rest

Special Interpretive Programs will be eonducted on six parks during the summer where seasonal personnel are not assigned. This will eonsist of a Friday, Saturday and Sunday sehedule of aetivities and will be eonducted by an Interpretive intern from Clemson University. Parks are:

Seminole	June 18-20
Fort Mountain	July 2-4
Little Oemulgee	July 16-18
Mistletoe	July 30-Aug. 1
Fort Yargo	Aug. 13-15
Blaek Rock Mountain	Aug. 27-29

"Orienteering Competition" — July 9-11 at Hard Labor Creek.

"Pioneer Living" — July 23-25 at Tugaloo State Park

"Wilderness Experienee" — August 6-8 at Cloudland Canyon State Park

Information Programs will be presented at eight pa l. These will involve slide presentations, talks and dis -sions about the Parks and Historie Sites Divison d Department of Natural Resourees. Dates and loea s are:

July 2	Moeeasin Creek
July 3	Blaek Roek Mountain
July 16	High Falls
July 17	Indian Springs
July 30	Red Top Mountain
July 31	John Tanner
August 27	Amiealola Falls
August 28	Fort Mountain

OUTDOOR DRAMA SCHEDULE

June 17-18	Little Oemulgee State k
June 19-20	Crooked River State k
June 24-25	Hard Labor Creek State k
June 26-27	Mistletoe State k
July 1-2	Cloudland Canyon State k
July 3-4	John Tanner State k
July 8-9	Indian Springs State rk
July 10-11	Fort Yargo State rk
July 15-16	Vogel State rk
July 17-18	Unieoi State rk
July 22-23	Red Top Mou in
July 24-25	Cloudland Canyon State rk
July 29-30	F.D.R. State rk
July 31-Aug. 1	Indian Springs State rk
Aug. 5-6	Tugaloo State rk
Aug. 7-8	Elijah Clark State rk
Aug. 12-13	Magnolia Springs State rk
Aug. 14-15	Hard Labor Creek State rk
Aug. 19-20	Unieoi State rk
Aug. 21-22	Fort Yargo State rk
Aug. 26-27	John Tanner State rk
Aug. 28-29	F. D. Roosevelt State rk
Sept. 2-3	Vogel State rk
Sept. 4-5	Tugaloo State rk

NOTE: **Tokalitta** first on all oeeasions
The Vigil on following night.

Outdoors in Touch

Edited by Bill Hammack

GEORGIA SETS UP GEOLOGY BOARD

Georgia has become one of the few states to establish a state board of registration for professional geologists. Registration is required of all professionals in the practice of geology that may affect the public's health or safety. Only five other states so far have set these boards, but the importance of instituting professional geological standards is highlighted by the fact that legislation presently is pending in nine additional states.

"The mineral industry in Georgia has produced well over $3 billion worth of industrial minerals, metals and fuels," says Sam Pickering, director of the Geologic and Water Resources Division of the Department of Natural Resources. Pickering has been named to the newly-created board by DNR Commissioner Joe D. Tanner as his designated representative. "The underground water supplies of the state support enormous industries, metropolitan areas and individual homes," Pickering points out. "And Georgia's very geology has created the state's magnificent scenery from the Blue Ridge Mountains to the Golden Isles. A continued high standard of professional geological work will assure that these resources will never be abused but will be used for the benefit of all Georgians."

While the public benefits of the registration board are of paramount importance, says Dr. Howard R. Palmer, associate professor of geology at Emory University and a professional consultant for geologic work for the campus, a member of the new board, "another value will be that the professional status of geologists in the state will be enhanced."

Other members of the board are: James B. Talley, executive assistant in DNR, an attorney with an LL.B. from Mercer who also earned a bachelor's in geology at Emory and a master's in petroleum geology at the University of Oklahoma, who was a professional geologist in the oil industry in west Texas for 10 years; James W. Erwin, South Atlantic Division geologist, U.S. Army Corps of Engineers; Charles R. Livingston of Livingston Associates, practicing professional geologist, and John M. Smith, chief geologist for the Georgia Kaolin Company.

James B. Talley

Erwin was elected chairman of the registration board. Talley was elected vice-chairman and chairman of the rules and regulations committee, which is currently working on the regulations under which professional geologists will be registered.

Board members, save for Pickering, the designated representative of the Natural Resources Commissioner, were appointed by the Governor from a list of candidates picked by a nominating committee which was established by the various geological societies and organizations in the state.

"We will register without examination professional geologists from other states with requirements comparable to ours, on a reciprocal basis," says Talley. "Our legislation is one of the better bills of this nature. Our requirements are fairly stringent."

NEW GAME & FISH LAWS

Two legislative acts signed into law by Governor George Busbee are especially significant to hunters and anglers.

One will allow wildlife rangers to issue citations to violators of hunting, fishing and boating laws. Formerly, in many counties, rangers were required to take violators personally before the appropriate officials. The new law authorizes the issuance of citations and subsequent appearances at a later time.

In commenting on this legislation, Natural Resources Commissioner Joe D. Tanner said this new law will make it much more convenient for persons cited for violations, and will also save a great deal of time and expense for wildlife rangers, allowing them to devote more time to the apprehension of violators.

The other new law authorizes an increase in the amount paid to license dealers for selling a combination hunting and fishing license. It allows them to receive 50 cents for the sale of each combination license, double the previous amount. In addition, dealers currently receiving 25 cents for the sale of each non-resident big game stamp now will receive $1.00 for each one. This bill also raised the price of a non-resident big game stamp from $10 to $25.

Tanner commented that this increased remuneration to license dealers is very much in order. He said that even though the fee to the sportsman for the combination hunting and fishing license will not be increased, no revenue loss from this course should result, due to the encouragement of the sale of more combination licenses, and the reduced printing costs of a single hunting and fishing license instead of two individual licenses. The increase in the non-resident big game stamp, he pointed out, brings Georgia more in line with neighboring states and should provide additional revenues for the department.

Letters to the Editor

The February issue of *Outdoors in Georgia* is beautiful and the articles are interesting. But I am surprised at the photographs chosen to accompany the article "Getting Rid of Trash."

The two large pictures show compressed metal, apparently "junked automobiles." DNR's Resource Recovery Unit would tell you that these metals should *not* be buried in a landfill but recycled. As a matter of *finances* as well as conservation of resources (energy as well as materials), baling and burying metals is bad business.

In fact, an artiele on the resource recovery possibilities of metals—including aluminum eans as well as junked cars—might be a suggestion for a future issue

I had an interesting visit with Ms. Bettye Mokgoatsane of the Resource Recovery Unit several days ago. She has also joined the Environment Task Force of "Atlanta 2000" with me. She might be eager to work with one of your writers on this project.

Best wishes.

Helen P. Taylor
Atlanta, GA

I wish to take issue with some of your subseribers who expressed opposition to the eoverage afforded netmaking and 1976 Tide Tables in the January issue. The article on netmaking was very informative. I was awaiting the new tide tables with great interest and was pleasantly surprised with the new format—it's the best yet! Perhaps some of the subscribers who so readily criticize the publishing of data primarily for coastal fishermen should explore this great natural resource we are so fortunate to have. Keep up your good work!

Dan McMillan
Milledgeville, GA

Our issue of OIG for March came today and if I said I read every word in it after coming home from work, I would not be telling the truth.

I have, however, read enough to write a letter complimenting you on producing this and other fine issues in the past. I am not a hunter or a fisher but I thoroughly enjoy your publieation for its other articles. I am not going to voice my disagreement with your stories on what fish are biting where and I could eare less about the hunting season for wild turkey in any part of the state.

But, as I see it, the Department of Natural Resourees covers a wide range of subjects and you are entirely right to eover them all. I disagree with the letters from such writers as J. A. Durham and Harold K. Jones in the March issue. Can't they see both sides of the coin?

As women's editor of *The Valdosta Daily Times,* I realize not all women read Dear Abby or Heloise or the features written by our staff. Not everyone is interested in weddings, elub meetings, etc. That's why we try to have a wide appeal for all our subscribers. And I'd like to congratulate you on doing the same thing for OIG.

The stories on Dr. Lyman Hall, wildflowers, country stores, the Okefenokee, bird life, the State Capitol —these appeal to me and I am sure to thousands of others who do not hunt or fish. There is room for all. Please point that out to people like Durham and Jones.

The Department of Natural Resourees in my opinion is doing a great job. We are proud to have Wade Coleman as chairman.

Virginia H. Culpepper
Valdosta, GA

In reference to Bill Hammack's well-written article on Bass Tournaments Pros and Cons (Mareh 1976), you'll be receiving many letters from folks who have been awaiting such an article for the chance to knoek bass fishing, and the fishermen who eompete in tournaments.

In the early bass tournament days, I, too, looked askance at sueh events and wondered if they were pus g us away from what has been rela g recreation to me.

I have since come to reali – after eovering many state and n- tional tournaments—that bass os are like golf pros: they are a b d unto their own. Personally, I am ot a tournament fisherman. I go fis g to relax and my only competiti is with the fish on a one-on-one b s. If he beats me, I don't really e, but I always feel a glow of eo nt if I outwit him.

I asked Leon Kirkland long go if such tournaments as we se at Clark Hill, or Lanier, or elsev re in the state were biologically n- sound. He replied in the negati If such fishing ever proved detrim al to fish populations and there as sound, irrefutable biological vi- denee, I would be among the rst to demand an end to it.

Until that happens, let all us "amateur" bass fishermen be ec nt with what we like to do. Let's n ry to spoil the other man's ple re simply because he likes to fis for money. If you talk to men like 'lie Shaw, or Roland Martin, o Bill Danee, you'll find out that the ke to fish for fish, too.

Let's not plaee a blanket i ct- ment against the bass fisherm in the high-powered rigs simpl pe- cause some of them operate eir boats in such a manner as to se some of us displeasure.

For every bass fisherman wh uts up in sueh a manner, I can sho you three water ski boats whose m ner of operation disturbed me. I don't condemn all water skie for the aets of a few unthinkers o n- carers."

Bill Hammack's article was a od one. Let's have more of the s e.

Bill Babb
Outdoor Editor
The Augusta Ch cle

Coming Next Month...

George Walton. A signer of the Declaration of Independence, Walton was a renowned patriot. He was also in almost constant financial difficulty. Bill Hammack profiles this "broke" son of liberty.

Lake Lanier Islands. A lot has been going on up at Lanier in the way of recreational development. Susan Wood tells us how the Lake Lanier Island Authority is leading the way as a resort/playground.

West Point Dam. West Point is a hot fishing lake according to Bill Morehead. Bass, bream, and other gamefish may not be jumping in the boat on their own but maybe if you give them a little help.

Ed Dodd. For many years the exploits of Mark Trail have been followed in millions of American homes. This comic strip's emphasis on conservation predated by many years the ecological interest lately so important. The strip's creator, Ed Dodd, is truly an environmental pioneer. Bill Hammack interviews him in June *OIG.*

Outdoors in Georgia

5/76

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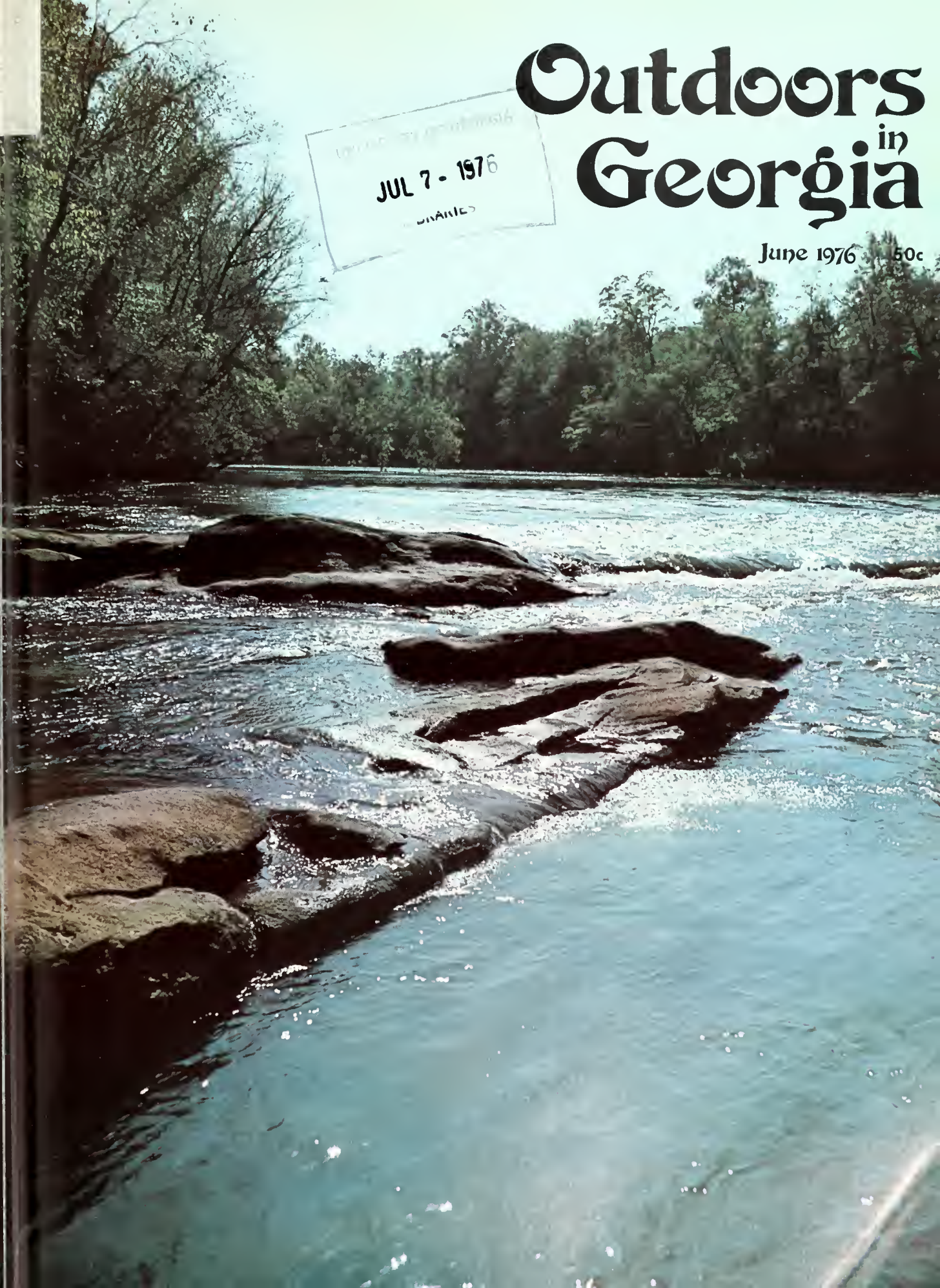

Outdoors in Georgia

June 1976 50c

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Outdoors in Georgia

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MAGAZINE STAFF
Phone—656-5660

Dovid Cronshow · Editar-in-Chief
Bill Morehead . . . . . Editar

Aoron Poss . . . . . Managing Editor
Rebecca N. Morshall . . . . . Writer
Dick Davis . . . . . Writer
Bill Hommock . . . . . Writer
Jingle Dovis . . . . . Writer
Suson Wood . . . . . Writer

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Bob Busby . . . . . Photo Editor
Edword Brock . . . . . Photographer
Cathy Cardorelli . . . . Photographer
Jim Couch . . . . . Phatagrapher

Priscillo C. Powell Circulatian Manager

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What Evil Lurks

A healthy, growing fish population is not the sort of thing that one would think troublesome to fisheries workers. Normally it's not, unless that growing population is an alien species unwisely introduced.

The specter of an uncontrolled population of non-native fish is currently a very real worry to the Game and Fish Division and the Department of Natural Resources. Many thousands of ornamental fish enter Georgia every year and many of these end up in ponds, rivers and lakes. True, most of these fish can't survive, but some can and that is a source of worry.

Other sources of concern over exotic fish species are several species currently being promoted as food, sport, and/or management agents for pond stocking. Perhaps this concern is more serious than the release of a few aquarium fish since these species are usually stocked in high concentration in ponds where escape into our river systems is very easy.

The walking catfish, already established in Florida, and the piranha, a potential threat, are examples of the accidental release danger. Two pond species, the silver and bighead carps, are currently being investigated as food producers and phytoplankton control agents. In the latter case, much more information about the total effect on the aquatic ecosystem is needed before these species are approved for introduction.

One species in particular merits careful attention. The white amur, also known as the grass carp, has already been placed in many ponds even though its possession in Georgia without a permit is illegal.

Promoted as an aquatic weed feeder and a good gamefish, the white amur was not thought capable of natural reproduction in the wild. More recent evidence suggests that it can, in all likelihood, reproduce and that it may be a serious competitor with native species.

The Game and Fish Division is currently involved in a program to find and identify ponds where amur have been stocked, and eradicate the fish. Perhaps stocked by individuals who did not know that possession of the fish is illegal, there are many Georgia ponds with amur in them. Each is a potential starting point for an escaped, wild population.

The Game and Fish Division is ready to try to resolve this problem through whatever channels may be necessary, including legal prosecution, but it is hoped that such measures will not be necessary. The goal of the program is not to prosecute Georgia citizens but to remove a potentially hazardous exotic fish species.

It is hoped that voluntary compliance will solve the problem.

David Crawford

Canoeing the Chattahoochee

By Jingle Davis

"She drowned running the rapids in metro Atlanta."

That bizarre epitaph flashed through my mind when our canoe flipped and dumped three of us into the icy Chattahoochee River, just south of Interstate 285.

I didn't have time, just then, to dwell on the incongruity of urban rapids. We were being swept downstream through foaming water at breakneck speed, gasping and choking as standing waves of whitewater washed over our heads. It was like racing through a cobblestoned carwash on a jet-propelled skateboard.

The coldness of the river—about 53 degrees in mid-April—was such an outrage to the human body that my first impulse was to swim for the distant bank—not the best idea I've ever had.

"Come back to the canoe!" Bill, our stern paddler, kept shouting until his words finally broke through my shock. He knew the canoe, though awash, would help shield us from the rapids still ahead. If I'd tried to swim to the bank, my unprotected body would have bounced over the rocks like a marble in a pinball game. I probably wouldn't have drowned, thanks to my life-jacket, but I might be hobbling around on crutches

instead of just nursing a few scrapes and bruises.

Trying, unsuccessfully, to keep our legs from slamming into sub-surface rocks, Pauline, our bow paddler, and I clung to the canoe like limpets as Bill angled toward a little island in the center of the river where other canoeists in our group were shouting advice and encouragement. We swept past a dense overhang of trees and briars on the upriver tip of the island and pulled ashore at a relatively clear spot. Helping hands reached out to pull us up on the tiny torpedo of land where our teeth began to chatter out morse code messages of cold and shock.

The eight other members of our group, whose canoes negotiated the rapids safely, wrapped us in dry clothes, offered a thermos of steaming tea, and teased us to keep us from taking ourselves too seriously.

Harvey Young, DNR's Heritage Trust Coordinator and an expert canoeist, told me he knew why I managed to hold my camera above water when we flipped.

"You knew you'd be filling out forms for the rest of your natural life if you lost a state camera," he said sagely. "Especially in light of the present budget situation."

"Nah, she just happened to go in with her camera hand up and when she hit that cold water, rigor mortis set in," someone else contributed.

I got into the Chattahoochee by accident—in more ways than one. All my previous articles for OIG have been written about Georgia's coast, and when my editor suggested I branch out and do a story on an inland river, I didn't know where to begin. Fortunately, DNR's River Planning Unit is staffed with experts wh collectively know the ins and outs of every river in the state. Kerry Dawson, DNR's Chattahoochee expe offered to arrange a day-long trip down that river.

When Kerry suggested doing a 12-mile stretch of Chattahoochee through northwest Atlanta, I wasn't entirely enthusiastic. "But I want to do a wilderness river—a clean river," I protested.

Kerry was nice enough not to attack my ignorance "Actually the water quality of the river north of Peachtree Creek is as high or higher than any river i the state," he said mildly. "And, once on the river, you don't get the feel of being in a city—about the only signs of civilization are at the bridges."

Unconvinced but willing to give the Chattahoochee chance, I asked Kerry to schedule the trip for the weekend of Atlanta's annual Dogwood Festival.

We arranged to meet early Saturday morning at Chattahoochee River State Park, near Vinings on Highway 41, where we'd take out at the end of the d From there our group drove in convoy to Morgan Falls Dam north of I-285 off Roswell Road in Fulton County, our point of departure. We wanted to leave early enough to insure completing the trip by early afternoon, with plenty of time to pick up our cars at Morgan Falls, return to the State Park and load our canoes before nightfall, when the park gates are locked.

By 9 a.m., canoes, cameras, lunches, lifejackets and eleven people were ready to take on the Chattahooch Because I'd be taking notes and photographs for the magazine, I'd ride in the canoe with OIG editor Bi

lorehead and his daughter Pauline. The rest of the oup split up into the other four canoes—Tom Carter, ate Park superintendent, paddling alone; Kerry and alt Munnikhuysen, a DNR Trail Planner, paddling gether; Harvey and Rick Tallant, a young intern, another canoe; and two friends from St .Simons land, Lynn and Eric Kocher, in the fifth canoe. Eric reed to act as back-up photographer for the trip—good thing, too, as I managed to save my camera it not the rolls of exposed film.

The river was moving swiftly—Kerry said Roswell ake above the dam was flooded with spring rains d more water than usual was shooting over e impoundment.

Once in midstream, there was no need for vigorous ddling; an occasional stroke kept the canoes on urse. We rounded the first bend, crossed the Gwinnett unty line, and all signs of the city suddenly vanished.

Here the river flowed serenely through a cool canyon green. Tall trees, bursting with spring growth, scaled e high riverbanks and lined the ridge tops like ntinels defending the river's wilderness. Dapples of rning sun drifted down the dense canopy of growth spotlight the smaller, more delicate vegetation—e white burst of a dogwood peeping shyly from the adowy forest; a patch of wild azalea glowing like a all campfire; a twist of emerald ivy winding und the pale trunk of a tree.

Though busy streets and tall buildings lurked just yond the trees, none of the city's cacophony intruded. th the exception of a pair of fighter jets from nearby bbins Air Force Base slicing the stillness high erhead, the only sounds were natural ones.

A kingfisher rattled his impudent call and a distant ing of wood ducks whistled hoarsely as they dipped ove the river in graceful formation.

It was Pauline who spotted the muskrat just ahead, s sleek brown body porpoising through the water. easionally it would surface and turn its appealingly nie face toward our canoe, bright button eyes tching us warily. Walt told us he'd seen more than of the animals on a recent downriver trip.

Kerry pulled a branch from the water and held it for our inspection. It took me a moment to realize ax-like markings on the wood were caused by ver teeth.

The woodlife we saw was only a tiny fraction of the iety which makes its permanent or part-time home the Chattahoochee. More than 55 species of animal —including mammals, lizards, turtles, snakes, ds, frogs and salamanders—live in the river or along verdant banks. Bird life is abundant; a member of 600 Club could almost complete his list just by dling the Chattahoochee corridor.

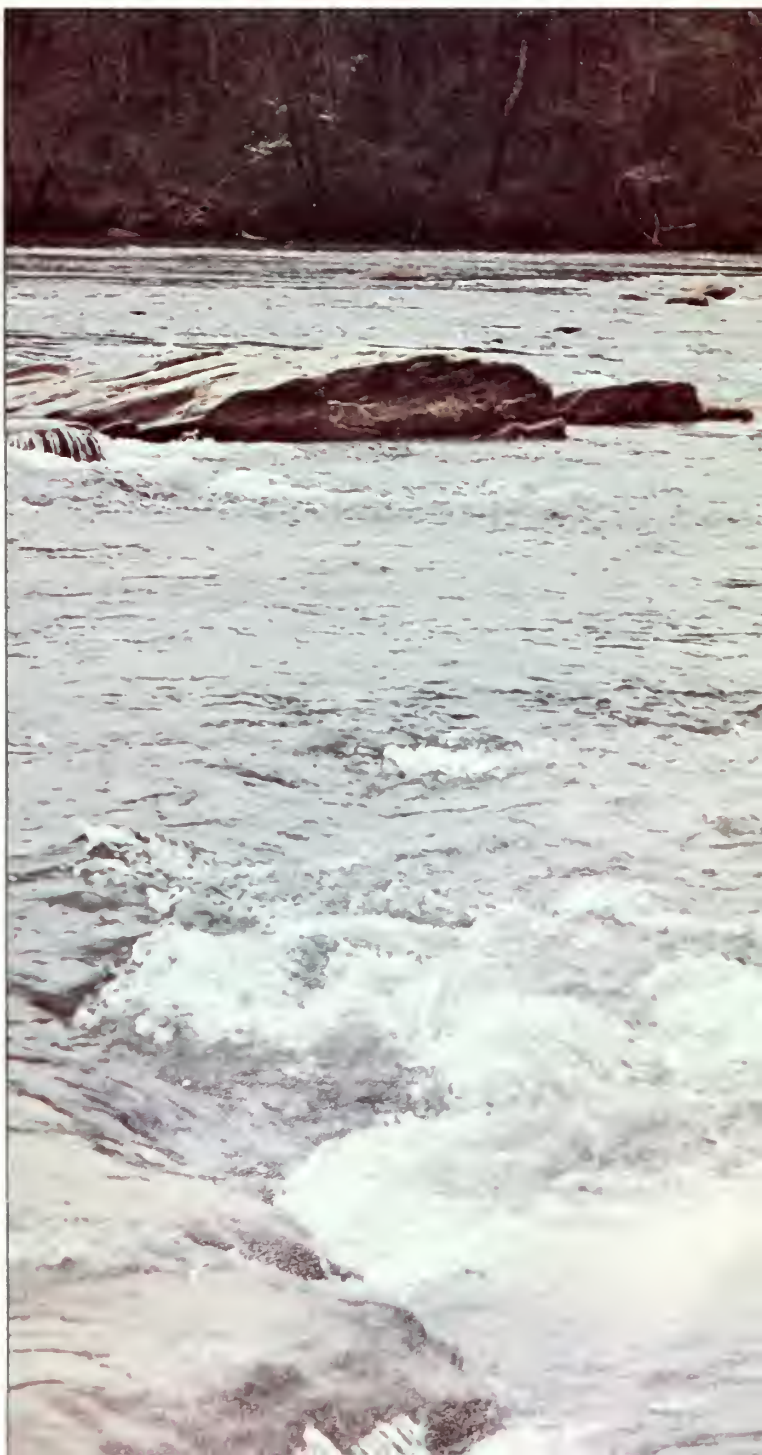
Our river experts called our attention to uneven croppings of gneiss jutting beyond the trees on the bank. On a wooded ridge above, several expensive-ing homes seemed determined—with moderate cess—to blend with the natural landscape.

Walt called for silence and told us to listen for the sound of a waterfall which leaps the high ridge and comes dashing down to blend its waters with the river.

We passed the mouth of Sope Creek, where an unfinished cluster of rustic condominiums stood in a clearing on the right bank. Apparently abandoned by its developer, the property—with its access road and cleared banks—was obviously appreciated by a dozen or more fishermen who were angling from the banks.

We paddled on past Johnson's Ferry Bridge, where the river butted in noisy frustration against the concrete pilings and traffic raced furiously overhead, but when we rounded another riverbend, wilderness returned.

Harvey, Kerry and Walt called a halt on the left bank



where the ruins of an old house were fighting a losing battle against the lush undergrowth. We climbed a rocky path to a vantage point several hundred feet above the river, stopping to admire the tiny spring flowers which had been invisible from the river. Pauline discovered several small garnets in a trickle down the rocks, and Bill identified a strange, fuzzy plant as rat bane. Lynn unearthed a cluster of narcissus; survivors of a garden which once surrounded the home.

Several times during the day Walt pointed out historic sites which lie along the riverbanks—more within easy walking distance of the river. If we'd had more time, we would have stopped for a closer look, especially at the Indian Caves.

We passed under I-285 around noon and stopped just beyond to take a break and pick up a DNR park technician, Don Whitmire, who'd complete the rest of the trip in Tom's canoe.

Until then, the style of canoeing had been entirely familiar to me—a veteran of such stillwater experiences as the Altamaha River and the Okefenoke Swamp. But as we pulled away from the landing, we noticed our experts were all strapping on lifejackets and tieing gear in their canoes. We followed their example. Kerry said the Chattahoochee's whitewater usually qualifies only as class-one rapids (on a scale of one to six), but spring floods had upped the designation to a more difficult class-two. And just below I-285, where sheer cliffs stretch up to form the palisades, we learned that even class-two rapids can be a bit ticklish.

For me, now that it's past, the experience of going over in rapids is one to savor. But it might have become a nightmare for one small boy and his family, who overturned shortly after we did. The mother, clin to the downstream side of the canoe, was trappe between the canoe and an overhanging tree on the i in some danger of being crushed. The boy, seeing mother's predicament, began to scream. Luckily, and the others were there to help, and everyone escaped without lasting scars. (Their canoe was casualty, though—the water's force ripped both st and bow seats loose from the craft.) The family s glad to accept Tom's invitation to make the rest c trip with our group.

It was less than an hour's paddle from the sma island to Chattahoochee River State Park. Again glad we traveled with experts, as I wouldn't have recognized the park from the river. To me, the thi of trees where we pulled in looked much like a do other thickets we'd passed.

Mindful of the park's closing time, we piled i Rick's car and headed back to Morgan Falls Da the other cars. As we sped across the Chattahoo on the I-285 bridge, I glanced down, hoping for a final glimpse of my first real rapids.

From the Interstate, though, the whitewater I see didn't look dangerous at all. In fact, the Chat chee—though pretty—appeared to be just anoth urbanized river, thoroughly tamed by civilization.

I settled back in my seat, feeling like a privile insider. I'd seen the other side of the Chattahoo the secret, primitive side of this unique Georgia which, even in the midst of a major city, has som managed to keep so much of its wilderness spirit a

Probably because the Chattahoochee runs through a city, too many people underestimate its wildness. But the weekend after our trips, the river claimed two lives on the same stretch where we overturned, and Tom Carter has lost count of the broken bones he's treated.

If you plan to raft or canoe the Chattahoochee, take a few safety precautions.

—Wear lifejackets all the time, not just through the rapids. The shock of going into icy water is stunning, and the temperature of the Chattahoochee—even in summer—is always low.

—It's best to canoe the river with someone who knows the river. At any rate, plan to travel with at least one other craft.

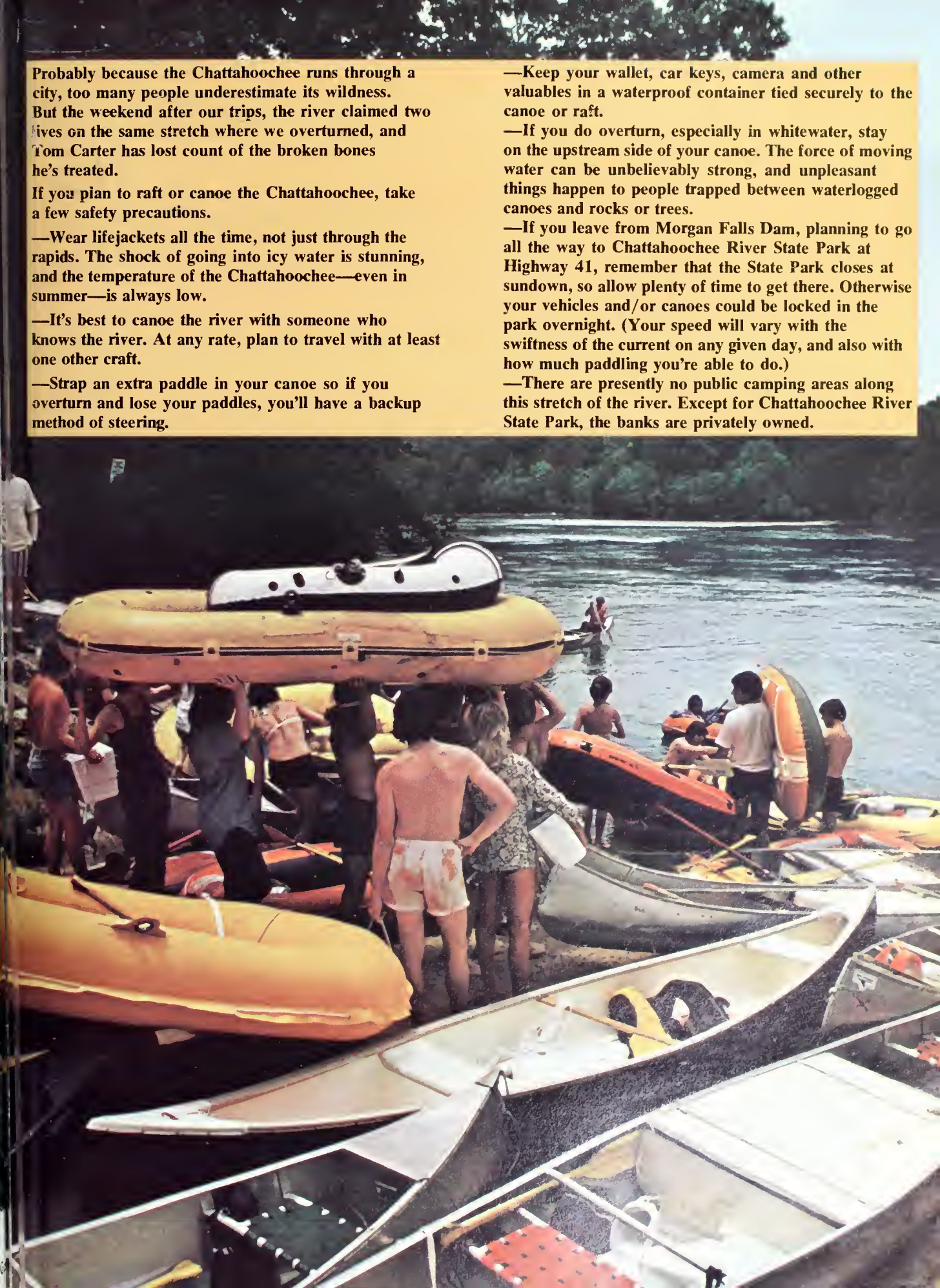
—Strap an extra paddle in your canoe so if you overturn and lose your paddles, you'll have a backup method of steering.

—Keep your wallet, car keys, camera and other valuables in a waterproof container tied securely to the canoe or raft.

—If you do overturn, especially in whitewater, stay on the upstream side of your canoe. The force of moving water can be unbelievably strong, and unpleasant things happen to people trapped between waterlogged canoes and rocks or trees.

—If you leave from Morgan Falls Dam, planning to go all the way to Chattahoochee River State Park at Highway 41, remember that the State Park closes at sundown, so allow plenty of time to get there. Otherwise your vehicles and/or canoes could be locked in the park overnight. (Your speed will vary with the swiftness of the current on any given day, and also with how much paddling you're able to do.)

—There are presently no public camping areas along this stretch of the river. Except for Chattahoochee River State Park, the banks are privately owned.



West Point Lake
the next superstar

By Bill Morehead

Photos by Bob Busby

A little over a year and a half ago (October, 1974) impoundment started on the newest big lake in Georgia. A year ago (May, 1975) the maximum power pool was reached.

This newest big lake, located on the mid-stretches of the Chattahoochee River, seemed destined to have good fishing. Other lakes on the Chattahoochee—Lanier, Walter F. George and Seminole—have proven to be prime fishing areas, and there was no reason to expect West Point Lake to be any different.

"In a couple of years, we ought to see some fine fishing" was a statement commonly heard in towns and counties near the new lake. "Why, you might even be able to land a keeper next year," some of the more optimistic anglers hoped.

In June and July of 1975, I took my son to West Point Lake to see what it was going to look like. I didn't expect to catch any good fish—that wasn't the purpose of the trip. I just wanted to become familiar with the lake so I'd be ready when its fishing "matured." I wasn't ready for what I found.

In those two trips to West Point Lake, my son an I landed more than 150 bass. True, most of them were u keepers—in fact, we didn't keep any—but the yo bass were so thick under the new bridges that my s and I had a field day catching them with ultra-l tackle.

Our experience with this new lake was not unic In talking with other anglers, I found many to view t hundreds and thousands of young bass with irritat "You can't keep a worm on your hook when fishing f bream, these little bass will nibble you to death!" angler told me. I noticed, however, that he had kep or so hand-sized bream—maybe those little bass ha worried him quite as badly as he thought.

The summer and fall of 1975 saw many shiny bass boats gracing suburban carports in the surroun towns of West Point Lake. Word was getting aro and people who hadn't been in a john-boat in years suddenly going to boat shows and looking at the bassers.

The summer of 1975 was a bonanza year for br fishing on the new lake. The bass were generally sm but the bream were good-sized fish. Word keeps spr ing about the new lake, and bass fishermen from all Georgia and Alabama have visited the new fishing spot.

The bass and bream populations in West Point Lake are stupendous. You just can't believe how many fish there are. I questioned Leon Kirkland, Chief of the Game and Fish Division's Fisheries Management Section, about the fish population in West Point.

"This new lake has the heaviest bass reproduction I have ever eneountered anywhere," said Kirkland. "There are several reasons for this: first, the river contained a good bass population and we stocked many farm ponds with brood fish before impoundment started; seeond, there is a relatively high nutrient load in the Chattahooehee River anyway, and third, we have enforeed the 12-inch limit on bass in this lake from the very start.

"There are basically two kinds of bass in this lake. The spotted bass is native to these waters, and so is the largemouth." Kirkland went on to explain that while bass population explosions are common to newly formed lakes, this partieular lake's bass explosion was enhanced by the superabundance of food and habitat.

"I think, barring unforeseen disasters, that West Point Lake will provide superb bass fishing for many years. Not only that, the bream population will continue to increase for a while and provide fantastic fishing. In time —how long depends on many things—both the bass and bream populations will stabilize," Kirkland added.

Replying to a question about other fish populations, he replied, "There is a good initial eatfish population, espeeially bullhead eatfish, and the catfishing should be ex-

cellcnt for some time. Further, there are populations of redfin pickerel and chain pickerel that could provide any angler with an unexpected surprise. We expect the bass population to maintain the forage fish population within acceptable limits. We introduced threadfin shad as a forage fish to West Point, and we're watching the populations closely. In such a rapid growth of fish populations, there is always the danger that one-size class of a particular species, or whole groups of one particular species, will dominate the fish populations, to the detriment of fishing."

Kirkland said "We don't expect that to happen, but, for example, should the shad grow too numerous—or too large for bass to prey upon—then we'll consider stocking hybrids (striped bass/white bass hybrids) and striped bass. If that has to happen, then West Point Lake would become another wonderlake for these fish in no time."

Kirkland went on to say that before the lake was impounded there was considerable worry as to whether the lake would become a cesspool, due to the upstream introduction of pollutants, particularly from metropolitan Atlanta. The Department of Natural Resources maintains a water quality monitoring network which includes stations on the Chattahoochee River upstream at West Point Reservoir as well as in the lake itself.

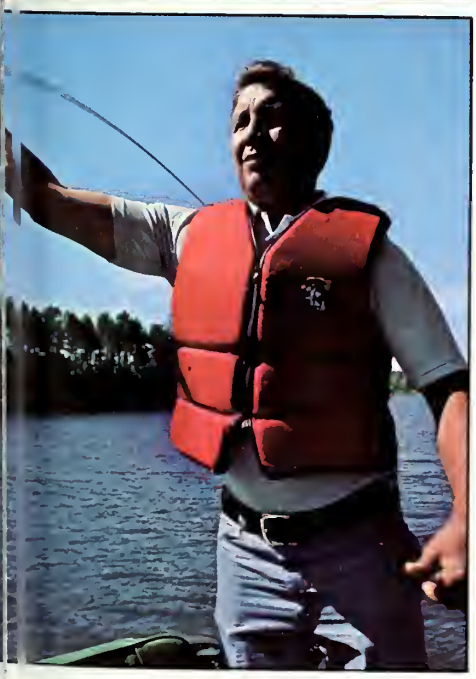
Marshal Gaddis, of DNR's Water Quality Section, is in charge of monitoring the water situation of this particular stretch of the Chattahoochee and West Point Lake. "We have made this stretch one of the high priority study areas. This lake is an exceptionally valuable new resource and we are attending to it accordingly." Gaddis further explained, "The problem of pollutants is not entirely the problem of the city of Atlanta. Other towns along the river, LaGrange, Franklin and Hogansville, for example, also contribute to the pollutant factor. It is a cumulative problem, and satisfactory solutions to it must also be cumulative. We have hard evidence that Atlanta has at least initiated its cleanup of this stretch of the Chattahoochee. For the first time in my memory, large numbers of largemouth bass have been caught at the mouth of Peachtree Creek, right upstream from one of the big treatment plants." Gaddis indicated that no matter how much more might have to be done, however, this was irrefutable evidence that the quality of the water had improved.

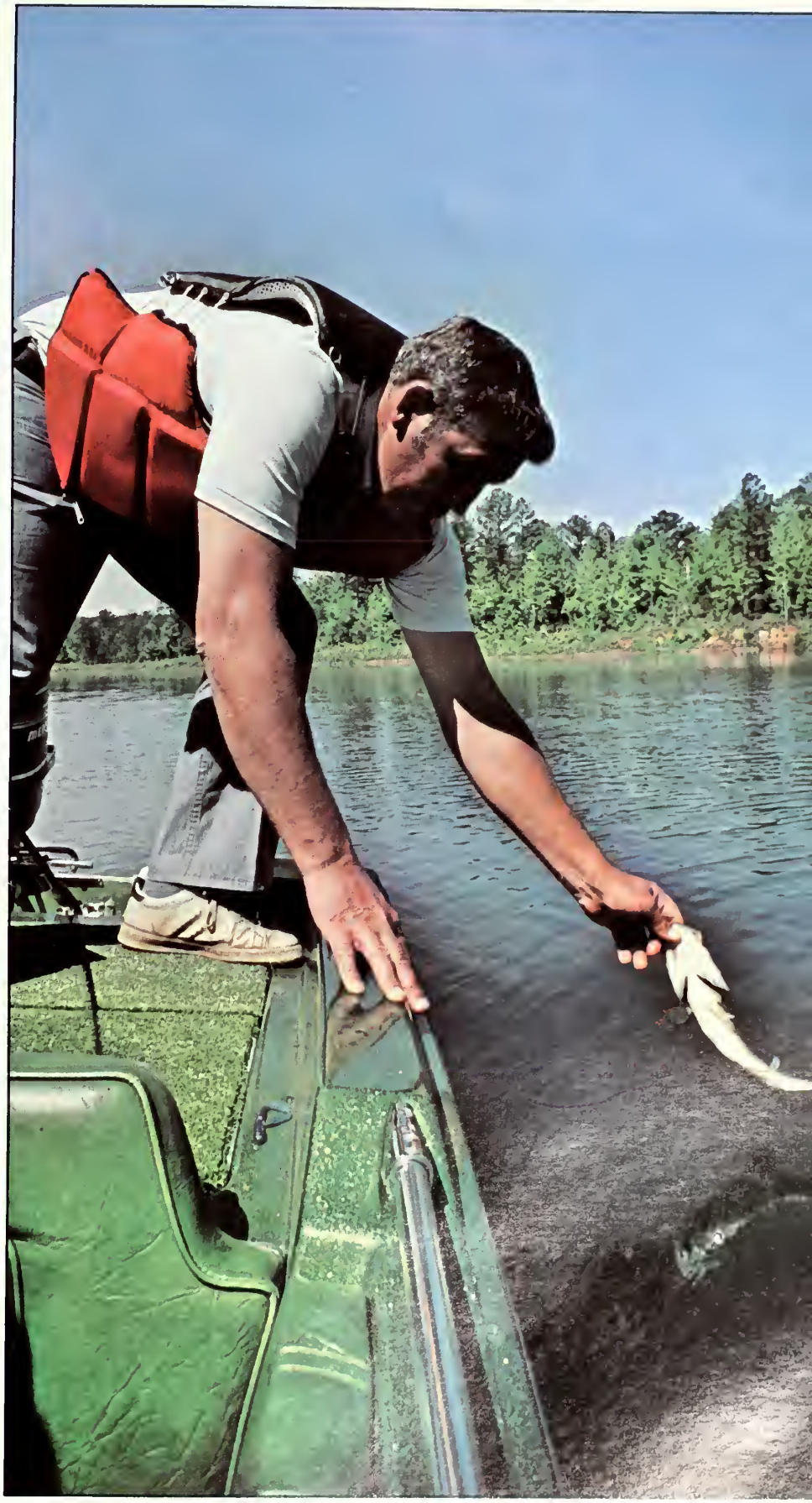
There was a time last September when water quality experts and fisheries management people were worried about the low oxygen content of part of West Point Lake. "When the lake filled to maximum power level, 635 feet, the water was stratified," Gaddis said. "The upper layers were O.K. in oxygen, but the lowermost layers, at least in certain sections of the lake, were very low in dissolved oxygen. The hurricane (Eloise) that swept through the area last September mixed the waters. The low oxygen content was probably due to a combination of circumstances: the abundant vegetation that was flooded, the time of the year and the wasteloads from the upstream towns and cities. The only mortality we saw at this time was on September 24th, when we identified some threadfin shad that had been killed by the overturn at Yellowjacket Creek. We found no other dead fish." Gaddis ventured that this minor kill was insignificant.

Gaddis pointed out that "The stratification of West Point Lake is an annual phenomenon, and we'll be watching it again next summer. We don't anticipate that it will be a significant threat to the lake, but it's certainly something we'll be monitoring."

In talking with Gaddis, I discovered that he, like myself, had latched on to the fishing wonderland that is West Point Lake. "My duties call for me to visit the area several times a month. Since I have been studying it, I have spent nearly every other weekend at it, fishing for bass," Gaddis said.

So there you have it. West Point—with its fantastic bass nursery—is the lake which causes a fisheries expert to say "it has the most incredible young bass population I have ever seen," and causes a water quality expert to spend his own spare time fishing on it. Little wonder that West Point is known as the next superstar lake for Georgia bass.





NTRODUCING EXOTICS

y Aaron Pass
tos by the Author
by Mike Nunn

It seemed like a good idea at the time...

By the late 19th century, science and technology had developed a mutually supportive system which was rapidly expanding the art of the possible. To the natural sciences, formerly concerned with observing and reporting, there were available the tools to actually do something. Advances in transportation, scientific equipment, and other technological achievements were rapidly adapted to serve biological ends. The ability to take dynamic, positive action, and to actually make changes in the natural systems so long observed, was a power little understood in the dawn of the scientific age.

The science of fisheries management in the U.S. was little more than a fingerling during this period. Although fish culture had been practiced and refined in Asia for centuries and in Europe for decades, it principally involved captive fish populations. The seemingly boundless wild water systems of North America must have appeared to be capable of miracles if only the *right* fish could be introduced. American fisheries workers were looking for, in the words of Commissioner Baird's 1879 report, "measures . . . for the introduction of useful food fishes into its (United States) waters."

The carp, *Cyprinus carpio*, was a hot property in the 1870's. Cultured in Asian emperors' fish ponds and held in equally high esteem by Europeans, the carp had excellent references. As a food fish, carp were reported as excellent, being favored on royal menus. Rare was even a moderate European estate without a carp pond.

The sporting qualities of carp were also glowingly described. English angler/writer Izaak Walton, patron saint of sportfishing, picked carp as his favorite fish. In his renowned treatise, *The Compleat Angler,* he wrote, "The carp is the queen of the rivers: a stately, good, and very subtle fish."

In short carp were the "wonder fish" of that day.

Initial stockings of carp in the U.S. occurred in 1831 and 1832 by private parties. German carp were imported and cultured by the U.S. Fish Commission in 1877. By 1879, carp fingerlings were being distributed to 38 states and territories by the U.S. Bureau of Fisheries.

Somehow things didn't work out. Although a commercial fishery based on carp began and still continues, American epicures, after almost 100 years, still haven't developed much of a taste for the fish. Very few U.S. sport fishermen consider carp "the queen of the rivers," or even consider it at all in any complimentary context. In 1897 carp culture was discontinued by national fish hatcheries due to the public dislike for the fish.

In the meantime, carp have made the best of things. An adaptable fish, they have spread through most North American river systems. Carp are hardy; they can live in waters so polluted as to be uninhabitable by native fish species. They also thrive in high quality waters and there, by roiling the mud, they can make that habitat undesirable for other species.

Several millions of dollars spent for carp-eradication have scarcely dented the national population. Instead carp seem to be thriving. Carp are apparently here to stay.

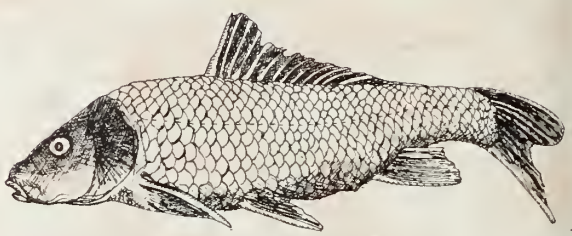
If there was any benefit derived from the carp at all it could be called negative profit. The carp fiasco pretty well stifled any desire to introduce other exotic species for the next 50 years.

Since 1950, however, there has been a resurgence of interest in exotic species. To the scientist the term "exotic" applies to any species present outside its native range. More commonly, exotic is used to describe species from other continents. Despite the lesson of the carp misadventure, new species are being touted which, according to promoters, will greatly increase food production, greatly enhance sport fishing, provide beneficial services for pond owners, etc.

The potential dangers of an exotic, whether it be fur, fish or fowl, lie in its effects on the natural system where it is introduced. Sometimes these adverse effects are simple and direct, i.e. the crowding out of native species. Exotics have the potential of rapid population expansion in new surroundings where natural population restraints capable of dealing with the new species may not exist.

The exotic may directly attack resident populations as a predator, or it may compete for the same food source. It may simply displace natives through force of numbers, as does the carp.

Other problems may be less obvious. It may some way alter the habitat enough to undermine complex



"We arrived about 7 o'clock p.m. at the p... at Hoboken . . . , our aggregate loss was 77 de... fish, leaving 23, which constituted our live sto... which may be considered, however, as a sa... factory result.

"My experience on this trip teaches me tha... is easy and practicable, with the assistance o... keeper, to bring over living carp from German...

From the report of Dr. Otto Finsch, May ... 1879 to Spencer F. Baird, Commissioner of F... and Fisheries, Washington, D.C.

interrelationships in that whole natural system. Ex... disease may be a hitchhiker with a new species. Na... fish with no resistance to the new disease are re... victims.

Introducing a new species has been likened to the ... of dropping a pebble into a pond of placid water. ... ripples continue outward long after the pebble is g... from sight.

The best known, new "wonder fish" in today's ex... fish market is the white amur, *Ctenopharyngodon id...*, also known as the grass carp. A native of Asia, ... fish has been widely promoted since it was brough... this country in 1963. The amur grows to large siz... is reported to be good to eat, is said to be a great spo... g fish, and eats plants. This list of attributes is impre... e and make the amur appear to be a useful fish. ...t, virtually identical claims were made about the Ger... n Carp in 1879.

It is not that a great deal is known about ad... se impacts of the white amur. Exactly the contrary i... e case—little is known about its potential to harm n... ve North American fisheries.

Some facts (and problems) are known, however ... d this has led at least 15 states to prohibit the in... p-tation of white amur except in controlled scientifi... e-search. Georgia is among this group and other ... tes are headed in the same direction.

The greatest fear is that the amur, contrary t... e claims of its proponents, can successfully spaw... in

North American waters. Natural spawning outside the amur's native range has now been documented in Taiwan, Japan, the U.S.S.R. and in one watershed in Mexico. There is no known reason that these fish could not spawn in the rivers of Georgia. An uncontrolled, wild population of white amur is a significant threat to native fish populations.

The white amur's principal selling point is that it is vegetarian and is helpful in controlling troublesome aquatic plants. This is partially true, but there is evidence that some noxious weed species are not eaten if other aquatic plants are present. Thus the weed control would occur only *after* other plants were consumed. This would have considerable impact on aquatic ecosystems. The exploited aquatic plants are important to native fishes for cover, food and oxygen production. Going beyond fish, this situation would leave a significant effect on other wildlife, waterfowl and fur bearers in particular.

In a non-vegetarian role, white amur fingerlings compete directly with native fishes for food. At this stage of development the small fish eat many invertebrates, which are also utilized by the young of most native fish.

These white amur were removed from a private pond in South Georgia. Although the owner was illegally in possession, no action was taken because he voluntarily complied with eradication.

There are also dangers posed by the amur's tolerance for salt water. They could spread from one river system to another through intercoastal canals. It is also possible that this tolerance would permit the amur to exploit the coastal marshlands, whose vegetation plays a key role in the production of the valuable marine species.

As the German carp has proven, an exotic that becomes established is almost impossible to eradicate. It seems wise to thoroughly study the white amur, or any other planned exotic before wholesale stocking takes place.

This approach is clearly spelled out by a 1973 resolution of the Sport Fishing Institute. "Resolved, that the Directors of the Sportfishing Institute . . . do herewith urge the U.S. Department of the Interior to prohibit the importation into the United States, except for well-

Photos of bighead and silver carps courtesy of Dr. R. Oneal Smitherman, Department of Fisheries and Allied Aquacultures, Auburn University. These species are being used for fish farming research.

German Carp, widely distributed in the 19th century.

White Amur, or grass carp, a potential threat.

Bighead (above) and Silver (below) Carps are prohibited.

controlled scientific study purposes, of all exotic fishes other than those that can be proven to lack harmful ecological effects upon the natural aquatic environments of the United States and the native fauna and flora found therein."

Perhaps our predecessors may be forgiven their romance with the German carp as basic ecological concepts were not well understood then. But today we have a grasp of these concepts and have seen the effects of their violation.

Another threat posed by exotic species is that of accidental release. Many thousands of ornamental aquarium fish are imported into the U.S. and sold through pet shops. Of these a great number are "stocked" into natural aquatic systems as discards from home aquariums. Occasionally individuals selling such fish attempt to cut cost by raising their own stock in small ponds. Either way there is a tremendous potential for unwanted alien fish to establish in our waters.

The so-called walking catfish, *Clarias batrachus,* is a member of the air-breathing catfish family, Clariidae. It is named for its ability to move overland for considerable distances by using its pectoral spines to crawl in the manner of a soldier doing the low-crawl on his elbows. These fish were in considerable demand as aquarium fish and, in 1965, a pet shop operator allowed some to escape from a breeding pond. The walking catfish has now spread through much of southern and central Florida.

This fish is highly predacious and a population of them can soon deplete the forage fish in a small pond. Then they simply hop out and crawl to greener pastures.

Anyone who has ever seen a jungle movie knows about piranhas. They are those vicious little fish that always eat the bad guy as he is making away with the peaceful natives' diamond idol eye. Hollywood exaggerations aside, these South American fish do swim in schools which will attack larger animals in the water.

As a tropical fish, piranhas were not thought capable of surviving in the wild in North America. However, it is now believed that some of the several piranha species may have a tolerance for cold water.

Both walking catfish and piranhas are prohibited species in Georgia, which means they can not be imported. But the tropical fish market is vast and several thousand fish are imported into the U.S. each year. At this time it is not known exactly how many of these species are capable of establishing wild population in our waters.

The potential dangers of exotic fish species are well documented. But there is another side of the coin—those exotics which, due to our view of them, might be called "good." It is interesting to note that, in the 1870s, another fish was brought over from Europe—the brown trout, *Salmo trutta.* Along with another exotic (by purist definition), the rainbow trout, *Salmo gairdneri,* from the Pacific coast, the brown trout is highly thought of on Eastern trout streams. True to the image, these two exotics have out-competed the native eastern cold water fish, the brook trout, *Salvelinus frontinalus.* Of course, the brook trout also suffered from habitat changes which the more tolerant brown and rainbow trout endured. As a result most of modern trout fishing in the east depends on two introduced species rather than the native cold water fish. This may be good or bad depending on your point of view—but it is a fact.

The Piranha (above) and the Walking Catfish (below) are threats from accidental release. Both species are prohibited in Georgia. While no populations of Piranha are known, the Walking Catfish is well established in parts of Florida.

Lake Lanier Islands

By Susan Wood

Photos courtesy of Tourist Division,
Bureau of Industry and Trade

The last rays of the glowing sunset filtered through n tall pines, casting shadows over the blue-green ter. A belted kingfisher circled overhead, dropping ver and lower with each swoop. Suddenly, "splash," as quickly as he had found his fish, the kingfisher urned to his perch in a nearby oak tree.

Beyond the cove a small sailboat was making its way ck home. As it glided through the silvery water, its iling wake shimmered patterns of light. Crickets and ne bugs had begun their nightly symphony while ntening bugs started to twinkle in the evening dusk.

At one end of the placid cove a small figure appeared, arfed by the enormity of nature's amphitheatre. ently the deer approached the water's edge. She pped for a moment, with head cocked and ears listen- for the slightest sound, then bowed her head for a nk from the clear, cool water. Finished, she turned l once again blended into the woods.

This is Lake Lanier Islands, an idyllic paradise seem- ly thousands of miles from the city's hustle and tle, yet just 40 miles from Atlanta.

Lake Lanier Islands is everything for everybody. In 1200 acres are lodging and dining facilities from ic to elegant, a dozen or more tennis courts, riding bles and trails, three trout ponds, a championship course, mini-golf course, boat docks and rentals, a ely beach, ski shows and over 200 picnic sites nestled he woods.

And if all this doesn't interest you, there are nature ls and undisturbed places where you can curl up in e sun to read, sleep or just be alone. Yes, all of this

is Lake Lanier Islands.

The Lake Lanier Islands Authority which developed this island resort was created in 1963 by the Georgia General Assembly. The Authority receives state funds as well as financial aid from the U.S. Army Corps of Engineers and, recently, the Appalachian Regional Commission.

Visitors to Lake Lanier Islands have found that there *is* a complete vacation spot right here in Georgia. Many have become repeat visitors, and rightly so. A $2 per day or $10 per year parking permit allows you to take full advantage of almost all facilities on the Islands. Obviously the place is popular: in 1974, some 95,000 visited the complex; 1975 saw 738,000 enjoy the facilities. As of March 21 of this year, some 121,180 had visited Lake Lanier Islands. Officials believe that from 1.5 to 2 million will relax at Lake Lanier Islands in 1976.

Four islands chain together to form the island c[o]-plex. A rustic Welcome Center sets the stage. [S]-rounded by trees, shrubs and an array of flowers o[f] all hues, the Center boasts four inviting red rockers o[n] its sprawling front porch. The panorama begins to u[n]fold here as you catch a glimpse of two fishermen, their [b]oat bobbing on the sparkling water opposite you.

Camouflaged throughout Sylvan Island, the first isl[a]nd, are some 200 picnic sites, each complete with t[a]ble and grill. Three group-use pavilions are available on [t]his island for family reunions, company picnics and the [l]ike. Available by reservation, these pavilions have run[n]ing water, large barbeque pits and other essentials, a[n]d in addition, Island personnel set up your tables and c[lean] up afterward. Laurel and Rosebud Pavilions, [a]re

ıough to accommodate 75-100, are available for $10 er day. Dogwood Pavilion, with a complete, enclosed tchen, has a 400-500 person capacity and is available ır a slightly higher rate.

Lake Lanier Islands are actually hilltops which re- ained above water when Lake Lanier was formed by e Army Corps of Engineers in 1957. In their more an 1200 rugged, heavily forested acres sprinkled with ep coves, nature still has the upper hand. All devel- ped facilities were designed and constructed so as to sturb the natural terrain as little as possible. This is parent throughout the Islands where cabins, parking eas, campsites and administration buildings are hardly ticeable at first glance. With only 200 of the 1200 res developed, animals such as deer, mink, fox and aybe a bobcat or two still find room to make their mes.

Future plans call for the addition of a Horticultural enter with three or four greenhouses and a meeting nter for seminars and more nature trails exhibiting ni-gardens of native plant life. Also in the works is e James H. (Sloppy) Floyd Recreation Center, a vast mplex to include up to 20 tennis courts, basketball d volleyball courts, ball fields, Olympic pool and a ,000 square foot pavilion.

The 1400-foot white sand beach offers free swimming d is presently being expanded to more than triple its esent size. Summer finds lifeguards on duty for up to hours per day. In addition, all types of boats, from o-person paddle boats to sailboats and catamarans to -foot houseboats, are available for rent in the adjacent quatic Center. Free water ski shows, *à la* Cypress rdens, take place daily in the nearby cove.

Been bitten by the fishing bug? Lured by the clear, cool mountain streams to try your hand at trout fishing? For you, there's Rainbow Run. Three trout ponds there have recently been restocked and provide you the opportunity to catch your dinner. Rods, reels and bait are all furnished; you pay only for what you catch. You can have your prize trout bagged and iced free of charge or cleaned if you want to pay a bit extra. Then you can take your catch back to cook over the campfire or take it to the Restaurant where they will cook your fish for you and serve it with side dishes of your choice.

And golf! If you want to really test your skill, try hitting a few at the PineIsle Golf Course, adjacent to the PineIsle Resort Hotel. To give you an idea of its difficulty, the blue tees measure only 6499 yards but are par 72. The 18 holes ramble over a wooded peninsula, creating several difficult water shots. Number 16, for instance, is a 407 yard par 4 over a seemingly peaceful cove. It's the number two handicap hole. You'd better leave your hook at home on this course since on at least four holes, a hook or just a bad shot will land you right in the lake. PineIsle's course will confront you with eight over-water shots, so take along plenty of water balls.

Throughout the year, special events spark even more excitement on the shores of Lake Lanier. An Easter Egg Hunt brought out "children" of all ages. A country fair, antique car show and hang-gliding contest are among the possible attractions for this summer.

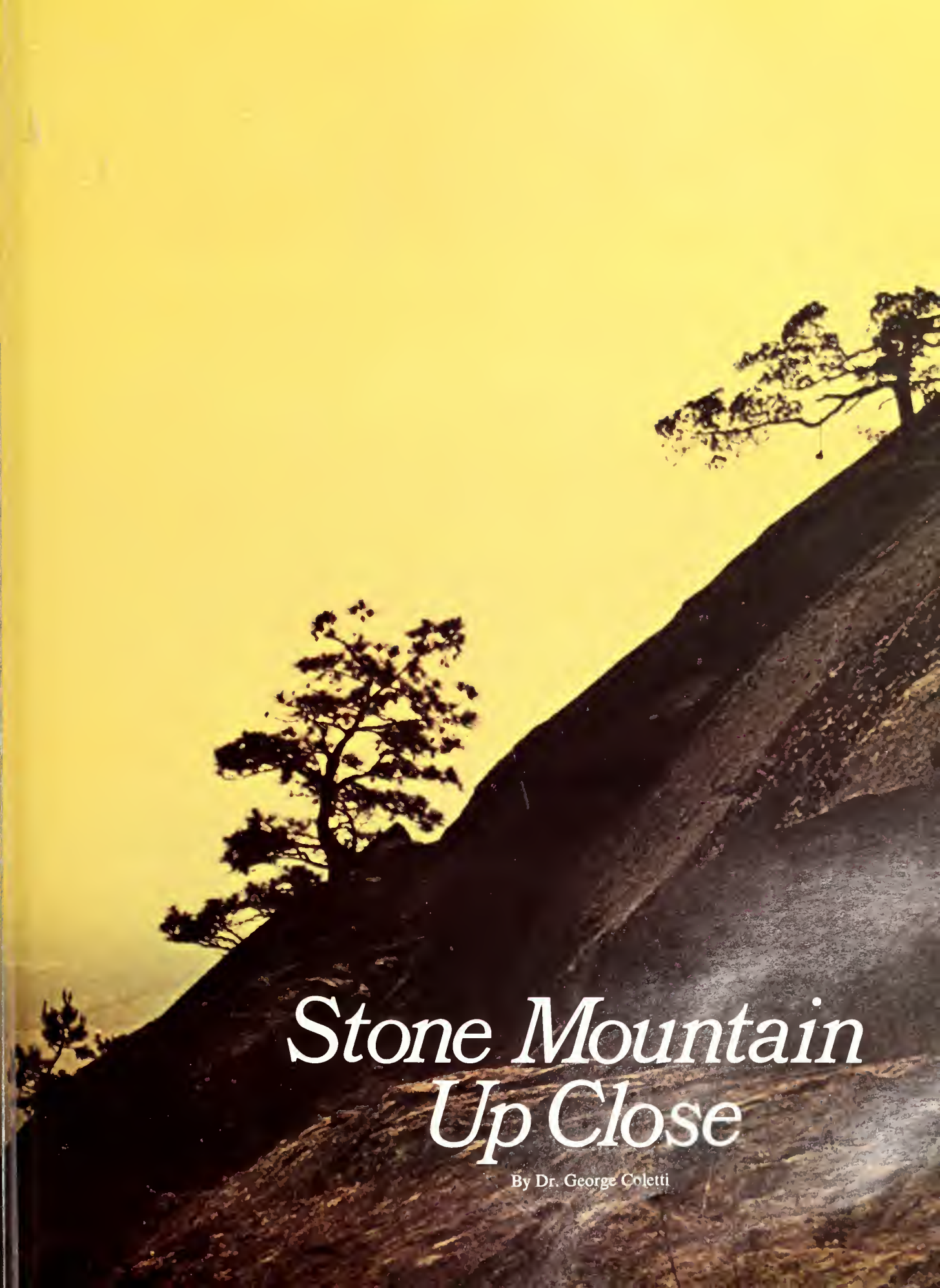
But special events or not, Lake Lanier Islands is a fun place to be. So when it comes time for a vacation this year—for a weekend or for two weeks—try Lake Lanier Islands. You can spend as much or as little money as you want and still have a delightful vacation. Let Lake Lanier Islands lure you; you'll be back again and again.

Outdoors Quiz

by Lt. V. J. Garrison

1. The new *size* limit on striped bass (rock fish) is:
   A. 12 inches
   B. 16 inches
   C. 15 inches
   D. None. All size limit restrictions have been removed
2. Which of the following fish have recently been added to the list of those which can be possessed only by permit from this Department?
   A. Suwannee Bass
   B. Neon Tetras
   C. Silver Carp
   D. Bighead Carp
3. The *possession* limit on largemouth bass is:
   A. 8
   B. 10 — Same as creel limit
   C. 12
   D. 20
4. Which, if any, of the following methods are illegal for taking largemouth bass?
   A. With the aid of depth sounders
   B. With bluegill as live bait
   C. At night with floating lights and live bait
   D. None of the above
5. Seining along Georgia's beach requires:
   A. A commercial fishing license for seines over 100 feet.
   B. No license, provided the seine is less than 100 feet.
   C. That all fish other than mullet be released
   D. Mesh be greater than one-inch square
6. The taking of rough fish by bow and arrow
   A. Is illegal except during the open seaso (March 1 - November 1)
   B. Requires the fisherman be completel submerged
   C. Is illegal if assisted by boat or othe flotation devices
   D. None of the above
7. It is illegal to operate a boat on the publi waters of this state:
   A. While consuming alcoholic beverage
   B. While intoxicated
   C. Under 16 years of age
   D. Without a marine vehicle operator license
8. It is illegal to:
   A. Ride the bow of boat without rails
   B. Stand while operating a boat
   C. Create a wake in the area of a marin or anchored boats
   D. Operate a boat without oars or paddle
9. Class A boats (less than 16 feet) may n be operated:
   A. With more than five passengers—on three of which may be adults
   B. With more than 500 pounds total gro weight
   C. With total gross weight in excess of th capacity plate recommendations
   D. Equipped with outboard motors in e cess of 75 HP
10. A fisherman is considered to be comme cial fishing if:
    A. More than 50 catfish are taken or po sessed.
    B. Cutbait is used as trotline bait.
    C. Saltwater flounder are taken with a gi
    D. More than two rod and lines are us while fishing for whites or hickory sha

Answers:
1. D
2. C, D
3. B
4. D
5. A, B
6. D
7. B
8. A, C
9. C
10. D



Stone Mountain Up Close

By Dr. George Coletti

The mountain overwhelms you with bigness, but up close it holds other, smaller worlds.

George Walton

By Bill Hammack

Art by Mike Nunn

Photos by Bob Busby

Author's Note: Some material in this sketch of George Walton never has been published before. For this material, thanks to Edwin C. Bridges, assistant to the director of the Georgia Department of Archives and History, who is writing a definitive biography of Walton for his Ph.D. dissertation at the University of Chicago.

Ga. 1776 1976

George Walton almost misse
signing the Declaration of Indepe
dence because of his patriotisn
Georgia sent Walton, Lyman Ha
and Button Gwinnett to the Cont
nental Congress in Philadelphia i
1776 but on the way north, Colon
Walton of the Georgia militia spe
so much time trying to recruit troo
for Revolutionary forces in Georg
that he reached Philadelphia lat
barely in time to join the Congre
and sign the Declaration.

It took him two months to trav
from Savannah to Philadelphia. C
the way, he stopped off at William
burg to petition the Virginia Hou
of Burgesses for (1) permission
recruit Virginians to serve in Geo
gia forces and (2) a loan from Vi
ginia to pay Virginians who enliste
to serve in Georgia. The petitions d
not add up to sound as presumpt
ous then as they may appear toda
Walton made the strong point th
while Georgia was sparsely pop
lated and hard-pressed to provi
her own defenses, she was strate
cally important.

Born in Virginia's Prince Edwa
County in 1749, Walton was
phaned early but he had a fairly su
cessful uncle, his namesake, wl
raised him. Uncle George owned
large plantation, and the story go
that during the Revolution, when
heard the British were coming,
filled a jar with several thousand fi
English gold coins. He lugged t
heavy jar out of his house to bury
Nobody knows how far he trudg
to his secret spot. Some say he w
gone 30 minutes, some say thr
hours. So far as is known, he nev
revealed the location of the hidi
place. For more than 50 years, pe
ple searched and dug for that ri
earthern jar. Folks around there s
dream of stumbling across t
golden hoard. Maybe somebody
ready has. Maybe old George hi
self went back for it. But as far
anybody—anybody who's talking
knows, old George's treasure is s
down there.

Young George was apprenticed t
a builder, Chistopher Ford, w
erected churches and courthou
and other large public structur

but George decided to look for another career. When he was 19 he left Virginia and headed for Georgia, anding in Savannah, which was already a thriving town of several thousand people. George's older brother, John, who lived in Augusta, had connections in Savannah, and soon George was studying law in the office of Henry Yonge, a prominent barrister. It didn't take George long to be admitted to the bar. And within three years he was one of the most successful lawyers in the colony, consulted by the likes of Edward Telfair, one of the wealthiest merchants in Savannah, who later became governor of Georgia. If the American artist Charles Willson Peale was not trying to flatter George in later years, Walton's portrait shows him to be a man of good looks with light-colored hair. While he was small in stature, his ambition was tall, and now he was well on his way; there was no telling how far he could go in the royal, loyal colony of Georgia.

What he eagerly went toward was possible disgrace as an outlaw, ruin and maybe death as a traitor. He cast his lot, as did a number of other young men from prominent families, with the Liberty Boys. Walton swam against a powerful tide. British loyalists were powerfully entrenched in Georgia. His legal mentor, Henry Yonge, was a loyalist. Save for a few patriots like Telfair, the young lawyer's wealthy clients were loyalists. But he joined the voices passionately holding forth against the tyrannical acts of the mother country. Following news of the battle of Lexington in April 1775, when some New Englanders fired the shot heard around the world, Walton, Noble W. Jones, Archibald Bulloch and John Houstoun issued a call for the people to meet "at the Liberty pole" at Tondee's Tavern and take measures to join sister colonies in the cause of freedom. The patriots organized a Council of Safety—one of the members was Walton. In July 1775 representatives from all over Georgia met in Savannah and virtually dissolved the colony's allegiance to the crown. In December of that year, Walton became president of the Council of Safety and as such, effectively was the governor of the colony. Patriots arrested the royal governor, Sir James Wright, but he escaped. The Liberty Boys were in the saddle.

The following year, when George Walton headed for the Continental Congress in Philadelphia and finally got there, and signed the Declaration, the delegates to the Continental Congress asked him and George Clymer to stay in the city to help Robert Morris carry on executive functions there. Congress itself, fearing a British attack, went to Baltimore. Benjamin Harrison of Virginia wrote a letter to Robert Morris saying he would have liked Walton to join the Congress in Baltimore because Walton was one of Harrison's allies and Harrison needed help, but that one more vote for his side probably wouldn't make much difference since Harrison was so outnumbered. So, Harrison wrote, perhaps it was just as well that Walton stay in Philadelphia to assist Morris and to while away the leisure hours with his, as Harrison put it, *fille de joie*.

Leaving the Congress in 1777, Walton returned to Georgia and in 1778 married 15-year-old Dorothy Camber. Later that year the British were pushing hard to secure the southern coast, intent on capturing Savannah. Walton then was the senior colonel in the Georgia militia. He warned General Robert Howe, commander of the American forces, about a passage through a swamp which could allow the British to hit the city from the rear. Whether Howe paid any attention to the warning was the ground for a court-martial later on. The British found their way through the swamp and struck Colonel Walton and his small band defending the southern flank. After a brief flurry, the Americans were crushed by overwhelming numbers and George Walton was shot, a bullet smashing a thigh. He was later captured by the British, who swept on to take Savannah. British doctors took good care of Walton until his leg healed—though he would limp for the rest of his life—and he was then sent as a prisoner to Sunbury.

While he was a prisoner of war, his bride—who had fled Savannah to go to Charleston where she was staying with relatives—sailed down the coast in 1779 to visit him. On the way back to Charleston, her ship was captured by the English. As captors and captives headed toward Antigua, a hurricane smashed the ship, carrying away the masts. Passengers and crew frantically jettisoned cargo, though they were sure they were going down. They were wrong. They reached Antigua where Dorothy was briefly detained by the British before returning home. She was 16 years old.

Not long after that, Walton came home too, exchanged for a captain in the British Navy. Later in 1779, the legislature elected him governor. Then George Walton's real troubles began.

During his term, a letter purportedly signed by William Glascock, the Speaker of the House, was forwarded to the Continental Congress. The letter protested the return of General Lachlan McIntosh to Georgia, and asked authorities to send him somewhere else. McIntosh had come home soon after the fall of Savannah to take part in rescuing Georgia from the British, hoping to encounter no further personal animosity because he had killed Button Gwinnett in a duel in 1777. Glascock denounced the letter as a forgery and McIntosh accused Walton of complicity. The Continental Army sided with General McIntosh, one of their own. Walton maintained that the letter represented the sentiments of most Georgians, that McIntosh was a controversial figure and that his removal was necessary for unity among the troops and in the state of Georgia. The letter had been written by a legislative committee who signed Glascock's name to it. The committee members were under the impression that Glascock had told them to take care of the matter and that he would agree with their decision.

Walton felt repercussions of the discord over the letter when in 1782

Meadow Garden (right and below), George Walton's home at Augusta, is maintained as a historic shrine by the D.A.R. Walton built the house in 1792.

This obelisk (opposite page) in Augusta was erected to honor Georgia's three signers of the Declaration of Independence. Here lie the bodies of both Walton and Lyman Hall. Button Gwinnett's remains are in Savannah.

Georgia demanded that General Howe be court-martialed for the part he played in the failure to guard against the British flanking maneuver through the swamp when the redcoats attacked Savannah. Howe claimed he had dispatched troops to cover the area. The court-martial ruled there was not enough evidence to convict Howe and he was acquitted with honor. James Jackson, who later became U.S. senator and governor of Georgia, commented that Walton had a good case against Howe but the Continental Command was prejudiced against Walton because of the McIntosh letter affair.

In 1780 Walton returned to Philadelphia for what was to be his final term in the Continental Congress. After George Washington's victory at Yorktown in 1782, the small new nation of the United States of America started beating a few swords into plowshares while warily keeping its powder dry. Walton returned to Savannah and started trying to rebuild his shattered affluence; he had come out of the Revolution in bad shape. But he never recovered financially from the war. He tried his hand in land speculation, but lost a good deal of money in the post war depression. He attempted to establish himself in the plantation system raising rice, but was unsuccessful. During the last years of his life, the Georgia patri was forced to employ many leg maneuvers to stay out of trouble. I was running from creditors in 17 when he acquired the land near A gusta for his home "Meadow Ga den"—had to put it in the name his nephew, Thomas Watkins, to held in trust for Walton's son. Wh Walton died, much of his prope was seized and sold at public au tion to satisfy debts.

Hounded by financial probler Walton kept serving the state. 1783 the legislature appointed h Chief Justice of Georgia; in 1789 was again elected governor for t then-current term of one year; i 1790 he became a Superior Co judge. The following year, Geo Washington visited Augusta, wh he was entertained by Judge Walt the chairman of the reception co mittee. In 1792 Walton built home, Meadow Garden, in a gr of mulberry trees. Walton suffe from the gout, and while 18th c tury folks were wrong when they cribed this ailment to nothing high living, evidence indicates t Walton did have a taste for a way of life.

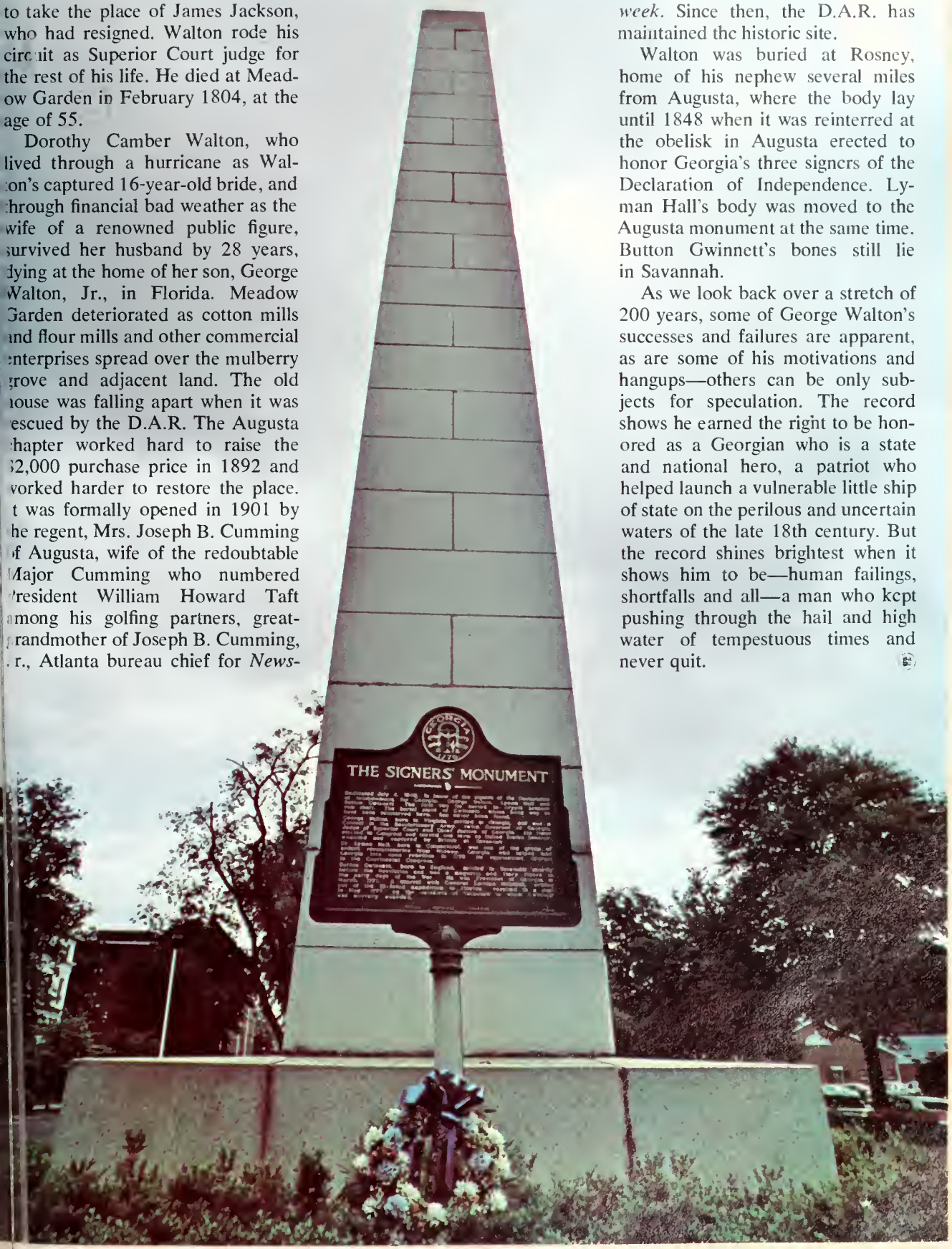
Named to the *Senatus Acad icus,* the commission that establis the University of Georgia, Wal also was a member of the commi that selected the site for the sch In 1795 and '96 he served as U senator, appointed by the gover

to take the place of James Jackson, who had resigned. Walton rode his circuit as Superior Court judge for the rest of his life. He died at Meadow Garden in February 1804, at the age of 55.

Dorothy Camber Walton, who lived through a hurricane as Walton's captured 16-year-old bride, and through financial bad weather as the wife of a renowned public figure, survived her husband by 28 years, dying at the home of her son, George Walton, Jr., in Florida. Meadow Garden deteriorated as cotton mills and flour mills and other commercial enterprises spread over the mulberry grove and adjacent land. The old house was falling apart when it was rescued by the D.A.R. The Augusta chapter worked hard to raise the $2,000 purchase price in 1892 and worked harder to restore the place. It was formally opened in 1901 by the regent, Mrs. Joseph B. Cumming of Augusta, wife of the redoubtable Major Cumming who numbered President William Howard Taft among his golfing partners, great-grandmother of Joseph B. Cumming, Jr., Atlanta bureau chief for *News-week*. Since then, the D.A.R. has maintained the historic site.

Walton was buried at Rosney, home of his nephew several miles from Augusta, where the body lay until 1848 when it was reinterred at the obelisk in Augusta erected to honor Georgia's three signers of the Declaration of Independence. Lyman Hall's body was moved to the Augusta monument at the same time. Button Gwinnett's bones still lie in Savannah.

As we look back over a stretch of 200 years, some of George Walton's successes and failures are apparent, as are some of his motivations and hangups—others can be only subjects for speculation. The record shows he earned the right to be honored as a Georgian who is a state and national hero, a patriot who helped launch a vulnerable little ship of state on the perilous and uncertain waters of the late 18th century. But the record shines brightest when it shows him to be—human failings, shortfalls and all—a man who kept pushing through the hail and high water of tempestuous times and never quit.



Outdoors in Touch

Edited by Bill Hammack

NEW DNR BOARD MEMBERS

Walter Eaves of Elberton and A. Leo Lanman, Jr., of Roswell have been named to the Board of Natural Resources by Governor George Busbee.

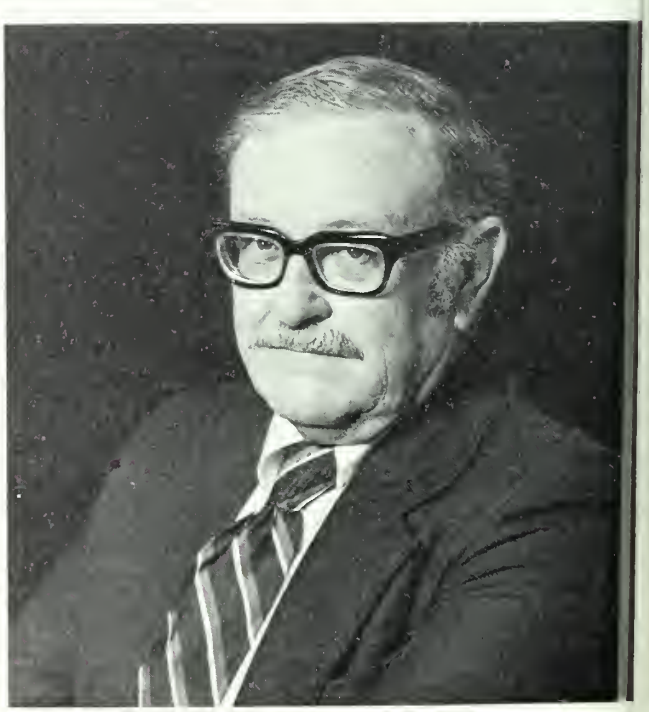
Eaves represents the 10th Congressional District and Lanman was appointed as member at large. Both men have demonstrated great interest in the natural resources of the state and in environmental projects in progress and in planning stages.

Eaves has been a hunter and fisherman all his life. "I've been able personally to observe the comeback of the deer herds in my neck of the woods, from no deer at all to some of the finest whitetail hunting in the state," he says. "This is, of course, the happy result of Georgia's enlightened wild game conservation practices. I'm witnessing the same splendid results in our state's wild turkey restoration program. Many counties in our district boast some of the best wild turkey hunting to be found in Georgia. And when it comes to fishing, Clark Hill Reservoir is acknowledged by professional fisheries authorities, as well as fishermen and fisherwomen, to be one of the finest fishing lakes in the state. I'm also greatly interested in other DNR programs in my area, such as Anthony Shoals, the Augusta Canal and Watson Mill Bridge State Park."

Leo Lanman says, "It's imperative that we continue and expand study of the proper utilization of Georgia's natural resources, bearing in mind both environmental and economic progress. We've been fortunate in Georgia since we've maintained so far a good program for total environmental quality. So we're in better shape than some other states. However, growth in the state makes more important than ever the clear need of balanced use of resources. For example, we need more studies of the water supply in southwest Georgia to identify the potential. We must match our industrial sites to environmental situations to maintain our state's quality of life and continued development."

Lanman retired as a Sears Roebuck executive in 1973, having served the company more than 30 years. Born in Staunton, Virginia, he has lived in Georgia since 1931, when he entered Emory University to major in economics. Eaves, born and raised in Elberton, who says he has "been in the meat business all my life," is chairman of the board of the Eaves Packing Company.

Walter Eaves



A. Leo Lanman, Jr.

CHATTAHOOCHEE BILLS

Separate bills have been introduced in both the United States Senate and House of Representatives to

cognize the national significance of the Chatta-ochee River. Both bills identify the "natural, scenic, creation, historic and other values" of the river as orthy for preservation and for special assistance om the Federal Government.

Hearings by subcommittees in the House and the nate have been held in Atlanta and in Washington. fact, Congressmen on the National Parks and Recre-on Subcommittee accompanied Governor Busbee on canoe trip down the river in October, 1975. These arings are a firm indication of the seriousness which ngress attaches to the goal of preserving the river d selected adjacent lands.

The bills authorize Federal funds for acquisition of d located at critical points along the river between ford Dam at Lake Lanier and Peachtree Creek within city limits of Atlanta.

W GEORGIA MAPS

The Geologic and Water Resources Division of the partment of Natural Resources announces the avail-lity of three multi-purpose maps of Georgia. A logic map, a satellite photomosaic map and a slope each portray the entire state on sheets about four four and one-half feet in size.

ommenting about the new products, Sam Pickering, sion director, said "The maps will serve the state a basis for study and solution to many problems lving mineral or water resources, mining, environ-tal studies, construction, industrial plant siting and l use planning."

ickering added that the geologic map is the first to ompleted of Georgia since 1939, and adds sub-tially to the detailed knowledge of the geologic ework of Georgia. The field work was completed 5 division geologists in 18 months. The extent and of rock formations and structures are shown. It is reatest interest in mineral exploration, water well lopment, industry siting, determination of soil n and planning of community development.

e satellite map is a single simulated infrared re of the state, pieced together from portions of ndividual images from N.A.S.A.'s LANDSAT (for-y ERTS) unmanned satellite. The satellite passes dically over Georgia at an altitude of 570 miles, can detect high contrast detail on the ground as l as four to five acres. Mountains, ridges, major voirs, swampy areas, cleared fields and wood-a may be easily distinguished. The project was a erative effort by the division, the U.S. Geological y and N.A.S.A. Time for completion was four .

e third product maps the slope of the ground into ategories. These categories have been selected to best farm land, development corridors, trans-tion routes and land which is too rugged or tainous for practical construction. It took two years for completion, and it too was a cooperative project with the division and the U.S. Geological Survey.

Copies of the new maps may be purchased over-the-counter from the division's map room, Room 406-A, 19 Hunter St., Atlanta. The satellite and slope maps may be mail-ordered from: U.S. Geological Survey, Topographic Division, Stop 567, 12201 Sunrise Valley Drive, Reston, VA., 22092.

WATSON MILL REOPENS

Watson Mill Bridge State Park in Oglethorpe and Madison Counties reopened to the public June 5. Department of Natural Resources Commissioner Joe D. Tanner says the park and all its facilities again will be serving the recreational needs of patrons as it did prior to being closed temporarily in 1975.

The park has picnic shelters, campsites with water and electricity, comfort stations, dump station, fishing facilities and a covered bridge.

The covered bridge is perhaps the park's outstanding feature. It is the longest of its kind remaining in Georgia; its four spans stretch some 236 feet across the south fork of the Broad River. Although the bridge itself was built about 1885, the milling industry for which the park was named has a much longer history in the area. The bridge was restored in 1973 by the Georgia Department of Transportation to serve as a focal point for the state park.

In announcing the reopening of the park, Tanner said, "We in the Department of Natural Resources are glad to resume operation of this park and have it serve the many residents in the northeast Georgia area. We regretted closing this park when we did, but elected to hold it in caretaker status hoping we would be able to reopen it at a later date when the economy improved. We are happy that we can reopen this particular site."

Watson Mill Bridge State Park is located between Lexington and Comer on Georgia Highway 22.

Letters to the Editor

Enclosed you will find a letter that was sent to your fish and game department. Knowing how busy that department must be I am sure you will give proper recognition to the warden, Bill O'Neal, this letter speaks about. Although I am from Miami, Fla. I love to hunt and fish and have done so all over the south.

The largest single problem I have had is staying legal with all the state laws and bag limits being different. Although I always contact the fish and game departments in each area for assistance.

Last year I attended a three-day reservation hunt outside McRae, Georgia, where one of your wardens, Bill O'Neal whom I had only met over a year before, is assigned. Bill went out of his way to insure not only that we were advised of the laws but explained them thoroughly. He also helped us make arrangements to stay in one of your fine state parks, and made sure we knew where to purchase our licenses, food and gear.

At a time in our society when men in his profession, because of so-called sportsmen, have a hazardous, dangerous and thankless job, I think it is time to put the cards on the table, take stock in ourselves. This man has the job and does the job and believes in this unwritten creed of true men. And also is a husband and father like most of us.

I believe your magazine believes in sportsmanship, conservation, management and game laws being upheld. I feel that your magazine is the proper place to tell about someone who helps others. I also feel even though this letter is lengthy you will find space to help real sportsmen say "thank you" to a man who in these times sets an example for us to live up to.

Rodney A. Coile

I enjoyed your articles, and the photographs in your March issue, but I beg to differ with some of the conclusions reached in the article about shrimp fishing.

It may be hard to make myself clear, but I will try. I do earnestly advocate the banning of *taking egg bearing* shrimp (or having possession of them) during April or May. Last spring (in April and May, 1975) many were caught, some perhaps illegally. At the same time I advocate the Fisheries Commission exercising authority which I believe they already have, to delay the opening until most of the shrimp have laid their eggs. Last year on *June 1* and *2* several *thousand boxes* were caught, which were virtually 95 percent full of eggs. The delay of only a week or so would in my opinion have made last fall's fishing effort produce at least *5 million* pounds *more*. It turned out to be a disastrous fall season.

We have the marshes, creeks, rivers, and sounds to sustain this great renewable resource, and it is to our advantage to utilize its full potential. It is a resource that requires no fertilizer, no feed, no plowing, no fences. Its two great enemies are pollution and mis-management. Pollution is rapidly being bested. Let's work on the latter.

P. R. Kittles

* * *

I am writing to let you know how much I have enjoyed my 1975 subscription of *Outdoors in Georgia* because without this magazine we wouldn't know very much about our fellow anglers across our good state. It gives me a lot of good pointers on my fishing methods, and to my knowing I don't think there is an angler alive today that fully understands the habits or ways of the old largemouth bass because I myself have seen the time that he would strike anything that hit the water, then I have also seen the time you couldn't even have pried his mouth open and made him bite the same lures. I feel sure that other anglers will agree with me concerning "old big mouth," because he has what it takes to make anglers like me go "nuts" just trying to figure him out. But I surely do have fun in the process of trying anyway.

I surely would like to hear other anglers ideas and stories of the old master of fresh water gamefish. Because I have my fishing I believe my wife will agree with me on this subject because I only get to fish six days a week the seventh day I spend in my church at Faulkville, Georgia with my fellow anglers and also Christian friends.

Again I want to thank you for producing this fine magazine I believe it is the best thing that has happened to the sportsman in our good state. Thank you very much.

Robert Moore

* * *

Just a note to say I have read our April issue of *Outdoors in Georgia*, and sincerely enjoyed it. My only gripe is with the *gripers* in the article Outdoor Comments.

Please continue your good work as your articles have led to many good times for our family camping, hunting, fishing, nature hunting and tourist stomping. We have visited most every place mentioned in your magazine and plan to return to many during the summer ahead. By the way, the magazine arrived last week —we spent Sunday at Carters Lake.

Mrs. Olin Holtzelaw

* * *

This library makes efforts to purchase U.S.A. periodical publications on agriculture and related subjects.

Would you be so kind as to send us sample copies of two current issues of your publication *Outdoors in Georgia* in order we could examine and decide whether or not we should purchase your publication.

Thank you in advance for your kind attention to this matter.

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Coming Next Month...

Voyage of the Unicorn. As part of a national bicentennial program called "Operation Sail '76," a brig named *Unicorn* made Savannah a port of call. Bill Hammack and Bob Busby went on board for a look.

Oconee Journal. The famous journal of William Bartram chronicled the natural history of the southeast 200 years ago. A modern journal kept by Richard Kristin as he canoed the Oconee retraces a portion of Bartram's travels.

200 Years of Wildlife. A vast resource in colonial days, this country's wildlife population was severely tried by a growing population. With good management our wildlife now appears to be holding its own. Dick Davis covers the bicentennial history of wildlife in July *OIG.*

To give more space to the story scheduled for this issue about Georgia's Ed Dodd, creator of the internationally popular comic strip "Mark Trail," hunter, fisherman and conservationist, we have postponed it to August, when it will appear as the cover story. The cover will be an original drawing by Tom Hill, especially for Outdoors in Georgia, *featuring Ed Dodd and his all-Georgia crew on the strip—Hill, Jack Elrod and Barbara Chen—and, naturally, Mark himself.*

Outdoors in Georgia

‹ /76
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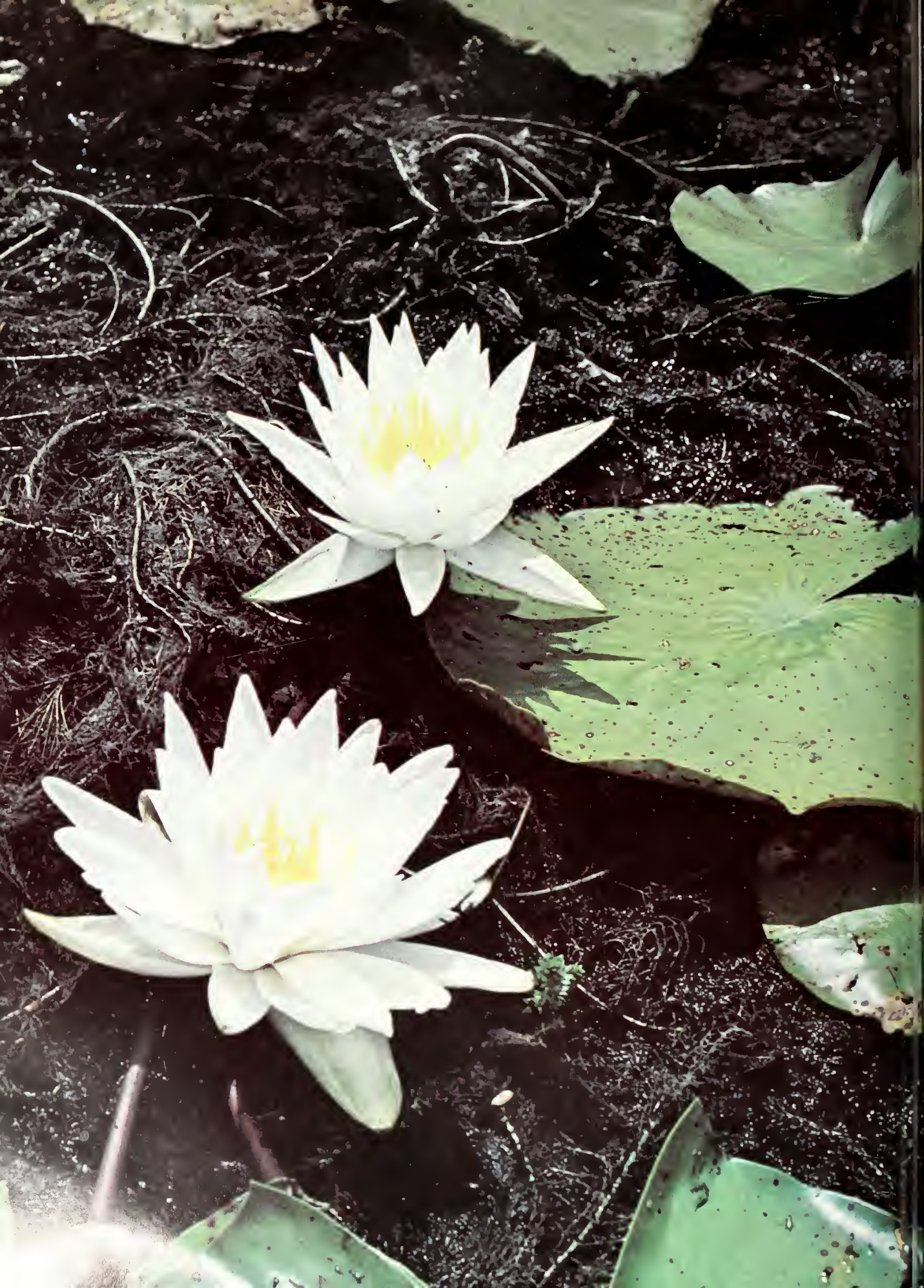

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Outdoors in Georgia

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BACK COVER: Casement at Ft. Pulaski, built in 1829 and named in honor of Gen. Pulaski. Photo by Bob Busby.

MAGAZINE STAFF
Phone—656-5660

David Cranshaw · Editor-in-Chief
Bill Marehead . . . . . Editor

Aaran Pass . . . . . Managing Editor
Rebecca N. Marshall . . . . . Writer
Dick Davis . . . . . Writer
Bill Hammack . . . . . Writer
Jingle Davis . . . . . Writer
Susan Wood . . . . . Writer

Liz Carmichael Janes . . . Art Directo
Mike Nunn . . . . . Illustrato
Bab Busby . . . . . Photo Edito
Edward Brock . . . . . Photographe
Cathy Cardarelli . . . . Photographe
Jim Cauch . . . . . Photographe

Priscilla C. Pawell Circulation Manager

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Future Thoughts

Interaction between man and wildlife in North Amer- has been a conflict. Since the arrival of the first ropean settlers, the use of the bountiful wildlife re- irce has been marked mainly by wastefulness and ed. By 1900, wildlife was severely diminished over ch of the country.

Since then, the concept of wildlife conservation has de some great strides. Shocked by the dramatic de- ne of game, the general public began to support servation. Game laws began to be enforced and rtsmen, through license fees and special taxes, fi- nced wildlife management.

Today, there appears to be a reversal in the trend over-exploitation. Deer are probably more abundant the east than when North America was a primeval est. Wild turkey and wood duck have been brought k from near-extinction. Beaver, once rare, are now sidered too numerous in many localities. Programs identify and aid the various endangered wildlife cies are underway.

We are proud of what has been done in wildlife nagement, but considerable work lies ahead. The ure of the wildlife resource is cloudy.

Past wildlife abundance was an easy victim to the ssures of civilization. Today's relative abundance ld just as easily be erased by lack of care or by r-protection. Certain problems seem to lead the list concerns for the future of wildlife.

The anti-hunting issue has disturbing implications for future of wildlife. The "It's immoral to kill any- ng" pseudo-ethic seems to be gaining popularity as ause. This may be caused by the fact that urban iety has little familiarity with the realities of the ural world. Advanced by sincere people who hon- y believe that hunting is a threat to wildlife, this ument ignores the real problems and diverts effort n their solution. In this context, the hunter is mis- in the villain's role as an agent of destruction.

The effect of this on wildlife is important. Wildlife ncies lose time, energy and money as they wage a on two fronts—one with the forces which degrade wildlife resource and the other with those factions seek to end hunting and with it many mechanisms the protection and enhancement of wildlife. If these ions are successful they could eliminate the two t important factors in the maintenance of modern life populations; the hunter, and the funding base ported by him. The money is important, but so is the broad constituency of sportsmen, who besides paying for licenses and taxes, have contributed to and voted for the high quality environment which produces game in huntable numbers.

Other threats to wildlife may be even more dangerous as they attack the resource directly. We group them under the broad heading of habitat degradation. Wildlife is a product of its habitat and reflects very accurately the quality of that habitat. Anything that harms the habitat, harms the wildlife resource.

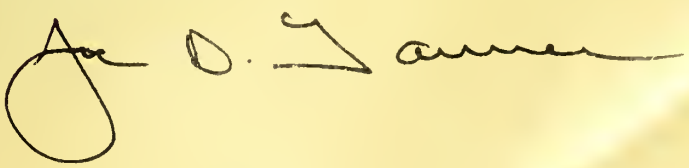
The use of hard pesticides and other injurious elements has taken its toll of wildlife. From DDT in bald eagles, to mercury in marsh hens, many of these chemicals have been found. Other substances may have to wait years before enough conclusive evidence can be gathered to justify regulating their use.

Habitat alteration has a profound effect on the future of wildlife. Right now we are losing wildlife lands at unprecedented rates. Wetlands, forests, and even croplands are being lost or altered. Timber stand conversion to pure pine and large monoculture field crops diminish the diversity necessary to wildlife.

Huge public works projects constructed at taxpayers' expense which often conflict with fish and wildlife values must also be considered. Cost-benefit economics of some projects are shaky, and in terms of most benefits, are often not directed to the public at large. Fish and wildlife personnel have fought these on a project by project basis that, like the anti-hunter controversy, drains more time and money.

Environmental issues are the real crux of wildlife's future. Adverse effects are cumulative: a piece here, a bit there, and difficult to see on the whole. They affect not only the wildlife we hunt and catch, but the whole of that wildlife heritage which remains to us—game, non-game and endangered species alike.

We should not be blinded by the favorable status of wildlife today, for man's progress and wildlife's destiny are on a collision course just as they were in colonial times. As conflicts between man and wildlife increase, environmental battles must be won time after time but need to be lost only once.



Elijah Clarke

Patriot or Scoundrel?

Susan Wood

Elijah Clarke, the "Hero of the Hornet's Nest" of Wilkes County, [illegible] hardy pioneers who fought Indians and British in Georgia to retain free settlers on their chosen land. Clarke could inspire little more than a handful of men (and women) to such defiant courage that whole regiments of British or whole bands of Indians would think they'd surely met their match.

A born leader, Clarke was the man everyone in Georgia's backcountry turned to in time of fear, confusion or defeat, so trusted that (women and children followed him some 350 miles over snowy mountains to safety in the Wautauga valley of North Carolina.

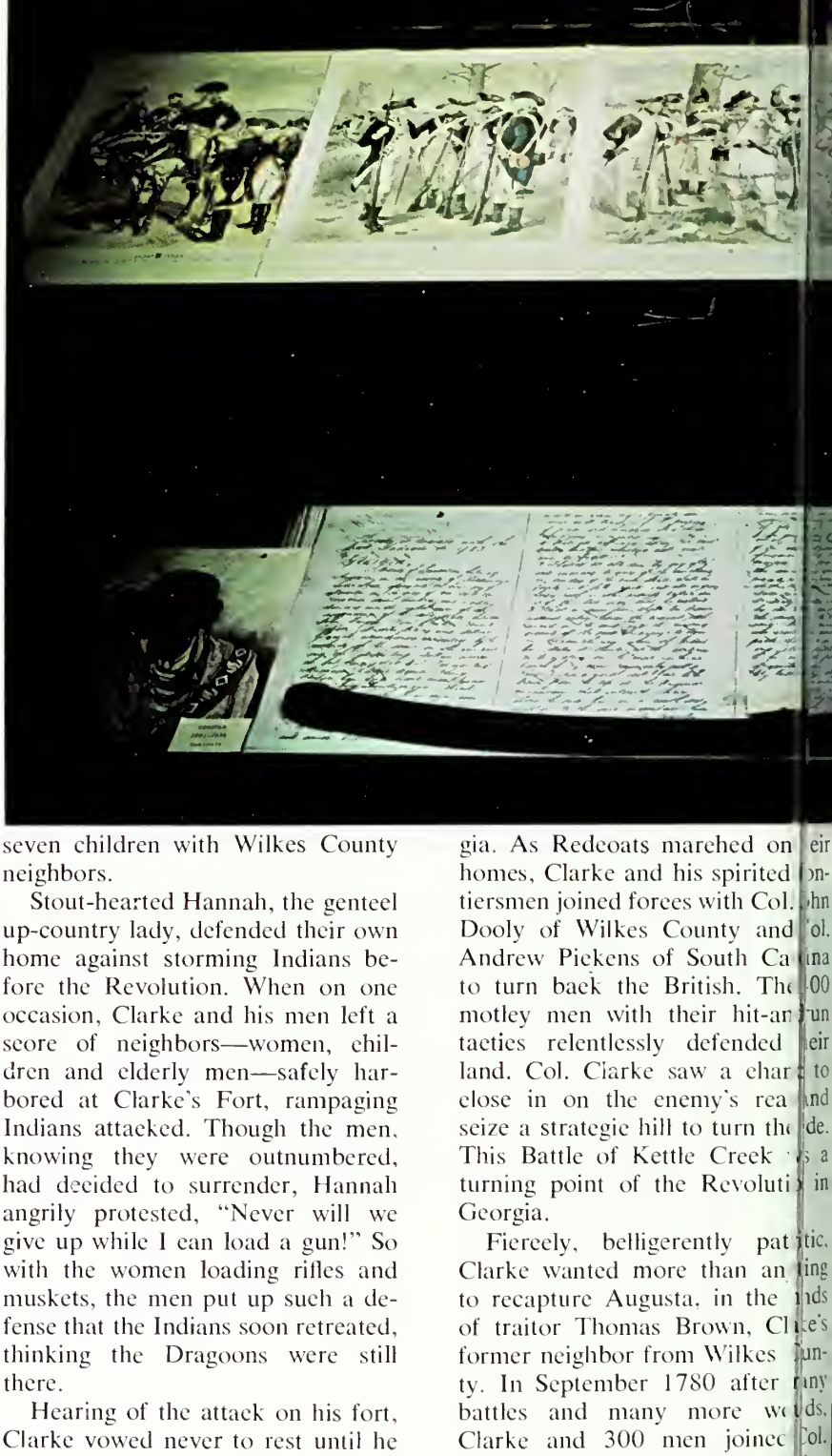
For Clarke was first, last and always a frontier fighter, in early days out of neeessity. Moving his family from British-oppressed North Carolina to Wilkes County, Georgia sometime after 1773, Clarke found himself deep in Indian wilderness. Clarke's Fort soon became the place

Clarke lived in what was Wilkes County, in a log cabin very much like this reconstruction.

Photo by Susan Wood

The museum at Elijah Clark State Park displays uniforms, documents and letters, circa 1780.

Illiterate, Elijah Clarke has created much controversy and confusion over the spelling of his name. Here, his purported signature omits the "e". More recent discoveries, however, indicate that the usual signature was "Elijah Clarke." The state park, though, is Elijah Clark State Park.



of refuge for neighbors' families left alone when Clarke led his "Wilkes Riflemen" to battle.

His Dragoons, numbering anywhere from about 40 to more than 300, left their Christmas dinner once to chase marauding Indians who had brutally killed a neighbor family. These men fought for their very survival against Indians, and then the British headed for Wilkes County to capture it. Having fled from strong British rule in North Carolina, the pioneers were *not* to be overcome even by well-equipped, well-trained British who greatly outnumbered the patriots.

Led by their leader Elijah Clarke, the riflemen soon became masters of guerrilla tactics. Almost always outnumbered, they found it necessary to "hit and run" if they were to be successful. As such a frontier leader, Elijah Clarke is said to rank with the legendary "Swamp Fox," Francis Marion. He loved danger and was at his best in a fight, and so his men came to be.

Among members of his loyal band was Nancy Hart, the feisty, red-haired spy who on at least one occasion dressed up as a man to be able to walk about unnoticed. Piling her hair under her hat and pretending to be insane, she once strode into British-occupied Augusta, talking to soldiers, noting the strength of fortifications and taking one Tory prisoner.

Clarke's wife, Hannah Arrington Clarke, also traveled with the army, tending her smallpox-scarred husband and teen-aged son John who fought alongside his father. Hannah nursed their wounds and saw them through malaria, leaving her other seven children with Wilkes County neighbors.

Stout-hearted Hannah, the genteel up-country lady, defended their own home against storming Indians before the Revolution. When on one occasion, Clarke and his men left a score of neighbors—women, children and elderly men—safely harbored at Clarke's Fort, rampaging Indians attacked. Though the men, knowing they were outnumbered, had decided to surrender, Hannah angrily protested, "Never will we give up while I can load a gun!" So with the women loading rifles and muskets, the men put up such a defense that the Indians soon retreated, thinking the Dragoons were still there.

Hearing of the attack on his fort, Clarke vowed never to rest until he had pushed the Indians back across the Oconee. As it turned out, he didn't rest even then.

Clarke and his frontiersmen distinguished themselves as Revolutionary patriots in 1779 at the Battle of Kettle Creek near Washington, Georgia. As Redcoats marched on their homes, Clarke and his spirited frontiersmen joined forces with Col. John Dooly of Wilkes County and Col. Andrew Pickens of South Carolina to turn back the British. The 400 motley men with their hit-and-run tactics relentlessly defended their land. Col. Clarke saw a chance to close in on the enemy's rear and seize a strategic hill to turn the tide. This Battle of Kettle Creek was a turning point of the Revolution in Georgia.

Fiercely, belligerently patriotic, Clarke wanted more than anything to recapture Augusta, in the hands of traitor Thomas Brown, Clarke's former neighbor from Wilkes County. In September 1780 after many battles and many more wounds, Clarke and 300 men joined Col. James McCall of South Carolina with but 80 men to march on Augusta. Nancy Hart, using her guise as a crazy peddler, had already been into Augusta and reported to Clarke what she had found. After fierce fighting, Clarke's compani[illegible]

Photos by Cathy Cardarelli

peared on the verge of victory when British reinforcements arrived and the patriots were resigned to retreat. They left Col. Thomas Brown badly wounded and *very* angry; Brown ordered brutal revenge against all patriots and their sympathizers.

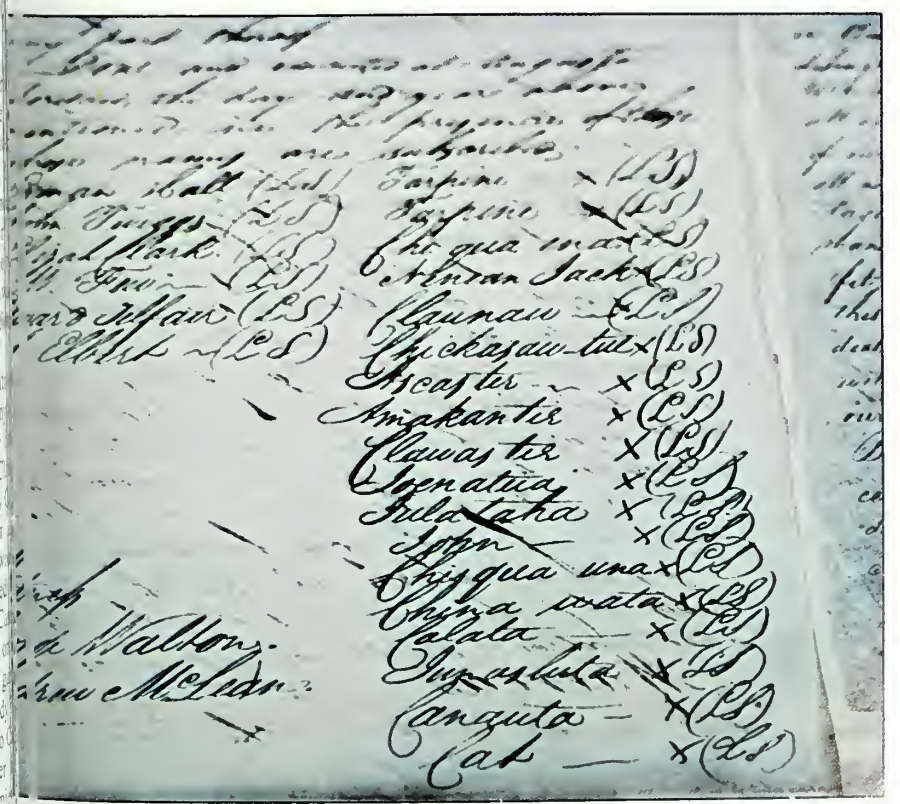
In 1781, though, the pioneer soldiers, bitterly angry over the destruction of their homes and determined to get their own revenge, readied for another march on Augusta to recapture it and hang traitor Thomas Brown. This time they succeeded. Col. Clarke, face pock-marked from a recent bout with smallpox, inspired the once-dejected men from all over the South. The furious three-week battle was finally won, thanks to support received from Col. Lighthorse Harry Lee.

When the Revolution finally ended in 1783, Clarke resumed his protection of the frontier against the Indians. Clarke had been granted several large tracts of land in Wilkes and Washington Counties in payment for his valiant Revolutionary effort, received other lands through a variety of means and had purchased some additional property in and around Savannah. Clarke, now land-hungry, was vitally interested in protection of his new lands. Because of his reputation as a fierce Indian fighter, Elijah Clarke was soon named to a commission to make treaties with Cherokees and Creeks. Negotiations brought to Georgia all the land east of the Oconee River, as Clarke had once vowed. And after taking his seat in the new House of Assembly, Clarke was named to the only committee that dealt with Indian affairs.

1793 found Spain sending agents from Florida into the Indian nations of Georgia to organize Indians against Georgia. Long an ally of the Indians, Spain had set up trading posts in Indian lands and soon began sending arms and ammunition to Indian warriors. Georgia protested vehemently to Spain and appealed to the U.S. Government for assistance —but official response was neither immediate nor satisfactory. This doubtless angered at least one of the frontiersmen—Elijah Clarke.

About this time, the French Ambassador to the United States, Edmond Charles Genet, was attempting to raise troops to seize Spanish-held Florida and Louisiana for the French. In Georgia, there was great enthusiasm for the French Revolution. Georgians were said to wear the colors of France to show their loyalty. In taverns throughout Georgia, toasts were made to "our brothers in France." Clarke, though really only loyal to himself, was always on the side opposed to the Indians, allied with Spain.

An offer was made to Col. Elijah Clarke to join the invasion so Clarke, always the fighter, agreed because, after all, he would be only protecting Georgia from a possible invasion from the Spanish-backed Indians. Resigning his commission as Major General in the Georgia Militia, Clarke recruited many of the same Dragoons who had stuck with him before, several hundred in all, and marched to the banks of the St. Mary's River, poised for action. The situation was fast becoming an international incident when Thomas Jefferson, acting for President George Washington, demanded that the



These reconstructions of Elijah Clarke's first and second homes house the Elijah Clark Museum. The smaller house (at rear) is a replica of Clarke's first home, later used as a kitchen.

French recall the instigator Genet. They did, leaving Clarke and his men stranded with no support even from the state they were protecting. Though the attack did not occur, Clarke and his men were called heroes by Georgia back-country citizens for sacrificing so much for the safety of Georgia. Neither the federal nor state government, however, felt Clarke's actions were at all heroic.

Meanwhile the Creeks in north Georgia had been rampaging, killing settlers and their families indiscriminately, so history books tell. In defense of the Indians, it must be brought out many Georgians, among them one Elijah Clarke, invaded the lands the government had officially given to the Indians. Indian plunderings and rampages were, for the most part, in retaliation for plunderings and rampages by the back-country men, eager for land and wealth.

Realizing that they were men without a country, Clarke suggested to his stranded troops that they create their own republic on the Indian side of the Oconee. Not realizing that such action might be treasonous, Clarke believed that only through this new republic could he and his men help protect the western border of Georgia. The Trans-Oconee Republic as it would later be called soon had its own Constitution, its own officers and a Council of Safety. Each man was promised, among other things, 640 acres and an additional 500 if the republic survived the year. Clarke claimed that he had acquired this land through an earlier treaty with the Indians, but no one knows this to be true. At any rate, Clarke proceeded to lay out Ft. Advance, the first of six planned outposts, across the river from the U.S. Fort Fidius.

Clarke had hoped that their mere presence on the border would terrify the Indians and, indeed, the rampage ceased almost immediately. Residents of western Georgia, of course, welcomed the peace and the protection by Clarke and his men. Again, Clarke's followers were heroes in the eyes of some Georgians. Clarke felt that with the Indians pacified, neither the state nor federal government could be bothered by his new republic. In fact, he believed that the government had no constitutional right to interfere. How wrong he was . . .

To make a long story short, Clarke and his disappointed, disillusioned soldiers were finally forced out by state militia forces who burned the last vestiges of the Trans-Oconee Republic.

About this same time, Elijah Clarke and his sons, John, who late became a governor, and Elijah, Jr who studied at Yale, again ran afou of the government when they becam involved in the infamous Yazo Land Fraud.

Now aging, scarred and tired, El jah Clarke was ready to put dow his gun and enjoy the rest of his day in relative peace. But this may nc have lasted long. Reports have r cently been found indicating th Clarke led yet another expeditic against the Indians in 1796. The ol frontier soldier died in Wilkes Cou ty on December 15, 1799, and w buried at his home, Woodburn, what is now Lincoln County.

History books have portraye Elijah Clarke as a true hero, a p triotic soldier.

But Clarke's actions can be see in another light—less heroic, b probably more realistic. Recent r search has shown that there was a other side to Elijah Clarke.

The Georgia patriots from Sava nah (Lyman Hall, Button Gwinne and others) regarded Elijah Clarl as an "upstart" who was not inte ested in the good of Georgia but what was best for *him*. They appa ently felt that if he had Georgi good at heart, his actions shou have been within the legal fram work of the new government. Clar did, however, break more laws th he obeyed.

"Opportunist" has been a wo ascribed to Elijah Clarke, and ma be that is a good description. He h also been called a hustler. When began his incursions against the I dians and the British, Clarke w broke. Somehow he emerged fr the Revolution a rich man, a m with much land and many slav Some land was deeded to him by t state, it's true. How much remains question.

So maybe old Elijah's heroics we just based on greed, admittedly very human trait. The first taste wealth apparently whetted his ap tite. So when his fortunes began dwindle, Elijah banded together loyal followers and rode off in sea of greater wealth.

Elijah Clarke was human, after a

Oconee Preface

I suppose everyone who lives near a river must
n etimes wonder what would be seen if he followed
a rushing current to wherever it goes. I live a couple
l s from the upper Oconee and have had such
ights about it. Early in April, 1976, I decided to
a down the river to the coast, to see what would
een.

The Oconee is not renowned for its scenic beauty like
Chattooga, nor does it drain half the continent like
Mississippi. So some may wonder, why bother
it?

At times I have wished that the Oconee had more of
ture-book kind of beauty like the upper
ttahooehee, instead of mud and mosquitoes. But
n I find fault with a rich and varied natural
seape, I realize the fault lies not in nature but in a
owness of my imagination. The Oconee has its own
es—a beaver runway down a steep bank; thickets of
ler, jointed cane; a bright yellow bird, the
notary warbler, shining in the thick greenness of
ottomland forest.

The Oconee River's headwaters lie in the hills
east of Gainesville in north Georgia. It then runs
gh mid-Georgia to join the Oemulgee, and together
become the Altamaha. The Altamaha runs into the
ar south of Savannah. As for the Altamaha, I had
it from a couple of highway bridges and knew that
Spanish moss, cypress and ospreys, it would be an
experience. I had also read of the Altamaha in a book, *The Travels of William Bartram*. Bartram was a botanist who traveled through much of Georgia in the eighteenth century.

I wondered if the Altamaha could still inspire the same admiration that it did in William Bartram 200 years ago this July.

First, I needed to build a canoe. I made a strong bottom frame of a pair of 12 foot poplar saplings, tied together at each end, and separated by short crosspieces. Similarly I put together a double ended gunwale frame separated by thwarts, but of slightly larger dimensions. Young saplings of ash and alder served as ribs to connect the gunwale and bottom frames. To the ribs I lashed switchcane to make a floor.

Over this frame I stretched some old house painter's canvas and stapled it to the gunwales and ends. After sewing up some holes, I painted the canvas with two coats of tar. The canoe took three or four days to build and my only expenses were for string and tar, about three dollars. This canoe completed the 10 day, 265 mile trip without one leak or repair, though I had to be very careful to avoid snags.

I began my trip down the river near Milledgeville at Highway 22 so I wouldn't have to paddle through Lake Sinclair and portage the dam. Under the dark overhead skies, I looked a bit anxiously at the broad, rushing river and my small, fragile canoe . . .

Richard Kristin

Photo by Bob B

Oconee Journal

By Richard Kristin

Wednesday, April 14

Dad drove me to Milledgeville. With some difficul we hauled the canoe and gear down a steep bank an set off down the broad, brown current. As I waved good-by to Dad, I felt lonely as I always do when he takes me to the start of a solo trip.

The current carried me sometimes between banks floodplain forest, and sometimes through sunny gree pastures behind a fringe of trees. Passed a bluff with brand new springtime leaves and a blooming fringtr as an unseen hawk started screaming. This I took to a good omen.

Saw many hawks, but without binoculars and ma I couldn't identify them. Sometimes the river ran straight for long stretches—a long aisle of rumpled brown water between low, soft green walls. The boa drifted on, seemingly going nowhere. A kingfisher breaks the lazy spell, when it gives its rattle, dives fr its perch and skims over the water. Or a great blue heron jumps from the bank and beats its way into th sky with its broad wings.

The first few miles with its pastures and dark metamorphic rock gave me the impression of still b

me in the Piedmont. Here the Oeonee Indians had ir village in the early eighteenth century, and here lliam Bartram crossed the river on his journey to the ssissippi River.

The sky got black, and thunder made my nerves gle. Stayed close to the banks to avoid danger. gusty wind and a spattering of rain convinced me that as in for a downpour. As soon as I had set up camp, storm blew over. I made a pot of oatmeal for dinner. ne friendly fishermen came by and gave me three ppies, which I roasted over the fire. Took a short k, chewing on simlax shoots and admiring the flower alse garlic *(Allium bivalve).*

hursday, April 15

As the sun rose out of the woods, I shoved off. After hile, a flock of goldfinches materialized out of a dead e, flew halfway across the river and en masse turned und and merged with the dead tree again. I heard ne crunching. Looked down and saw a big, wet ver sitting on a level willow trunk half submerged in e river. I watched him chomp away at a leafy plant d between his front paws. A bit later, passed a large le lazily paddling downstream.

As if that wasn't enough, I soon saw a doe and her n (no spots) walk through the bamboo.

About midday, passed a 15-foot-tall bluff of dimentary rock covered with pines. At the lower end a boat launching ramp and dirt road with only a derate amount of litter. Saw a three- or four-foot ake crossing the river. The body was floating prisingly high in the water. When I got close enough ee diamond-shaped markings, I started kpaddling.

n the afternoon, the river ran in S-shaped loops for rs, always with a sandbar and willows on the inside, a steep cut bank with scrubby trees and switchcane he outside. The river is full of snags so I had to pay e attention to avoid ripping my canoe. Toward ning I saw a couple prothonotary warblers. Camped low bluff of chestnut oaks and palmetto a couple s past a railroad trestle. I am starting to see nish moss and cypress.

iday, April 16

Grabbed some peanuts and pushed off. In less than an r passed under Highway 57. The next couple of s after the bridge were the most majestic that I had seen on the Oconee. High sandy banks with tall, s draped cypress, backed by a rich hardwood forest ich included large magnolias. I really felt I was in the tal plain. Along here I saw a female wood duck er off, dragging her wing-tips in the water. I looked ard the spot she had come from and, sure enough, e were her fuzzy little ducklings. When the ducklings w that I was not following their mother, they pered off after her.

Passed through more bends and came to a tall bluff at t 11 a.m. Rested in a cool forest of tall beeches. Passed through more bends then came to a wide majestic stretch again. At 1:30 saw water pour sparkling from a pipe at a boat landing. Some ladies there told me that the water is an artesian well and that this place is Blackshear's Ferry. Old fellow told me that when he was young, they used to float rafts of lumber down to Darien from here.

River continued wide and handsome from here to Dublin. At Dublin passed a noisy pulpmill and tied up at the bridge. Jogged across the bridge in the noise and confusion of heavy traffic, made a phone call and jogged back all in five minutes. Below Dublin felt upset at the roar of bulldozers, effluent pipes and garbage.

Camped on a low bluff past Interstate 16. Squirrels very numerous today.

I noticed on today's run that wherever the river winds around a lot, you have willow, sycamore, boxelder, maple, hackberry, etc. Where the banks are high, sandy and steep, and the river is a wide surging flood, curving gently in the distance, there are the large cypress, magnolia, oak, hickory, beech and Spanish moss.

Saturday, April 17

Saw more motorboats today than all the previous days combined. The river passed through tight bends till I almost got dizzy. Saw two osprey, (or maybe the same one twice) and a vine with showy clusters of lilac-colored flowers. (Later I identified it as probably *Wisteria frutescens.*)

Landed at a high bluff covered with a tall, open forest of white oak, hickory and magnolia. A good place to rest and enjoy dark green foliage and reddish-purple

Slider Turtle

blossoms of the buckeye and white blossoms of the locust. The native azaleas have almost completed flowering here while a mere 75 miles north of here at Milledgeville they were in full bloom a couple days ago. Slipped in the mud and fell into the river up to my waist while approaching the canoe.

At intervals of a mile or two passed three more bluffs on the right, some tall, rocky and handsome. More twisting bends for hours.

After passing a very tall bluff and another majestic section like at Route 57, stopped at a sandbar shaded by

Turkey Vulture Photo by Aaron Pass

tall pines and oaks. Rested, made oatmeal, bathed and caught up on journal.

In the late afternoon and evening I paddled the winding river through a beautiful floodplain forest of large hardwoods. A serene sky and big, luxuriant trees can float you into tranquility. Camped within hearing distance of Route 46.

Sunday, April 18

Owls hooted and caterwauled through the night.
I hear them every night and often during the day too.
Woke to the singing of birds in the grey dawn,
as usual.

Highway 46 crosses at a handsome bluff. Picnic area here. The river is broad, shallow and winding to Route 280, with occasional bluffs.

At one wide sandbar a group of black and turkey vultures, well over a dozen, were spread all over the beach at even intervals. Like human sunbathers, I suppose they wanted to invade each other's privacy as little as possible.

I landed at the boat landing at Highway 280 and asked a man if there was a phone at Oehwalkee. He said there wasn't, but very kindly offered to drive me to Mount Vernon, three miles away. Mount Vernon has an old 1890-style downtown with a beautiful courthouse.

After 280, the river splits into several channels as it passes through a low floodplain forest. Made camp on a high, grassy, open sandbar between a pair of persimmon trees. My first campsite without wall to wall mosquitoes. Some real nice fishermen visited with me for a while. Had my first unmolested sunset as a horde of dragonflies darted about eating mosquitoes.

Monday, April 19

A mile below camp I filled the water bottles from an artesian well at a badly littered boat landing. I knew I was close to where the Oconee joins the Oemulgee to become the Altamaha, so I voluntarily hurried. Passed hours of winding bends. Finally the river passed under a bridge where there is a large colony of summer homes and widened majestically. There the muddy Oconee met the clearer Oemulgee almost head on, merging to a powerful, welling current—the Altamaha. I landed at this point and had a little one-man celebration with peanuts and water.

Paddled several miles onward passing a large boat launching ramp with many waterskiers and what was once a beautiful bluff of rocks and moss-hung trees bu is now desecrated by outhouses halfway down the slop and vacation homes perched on top.

Camped a few miles down where the river is as broa as a lake. In one tree lived an anole or chameleon. I could usually find him when I looked for him. Sometimes green and sometimes brown, he often bobb on his front legs and inflated a flattened orange bladde about the size of a quarter. Along the shore I came up a myrtle warbler that couldn't fly and had been left behind by the flocks flying north. I wished him luck. T next morning before I left, I found him foraging for bu on the ground. He was not kicking up leaves like most ground feeding birds do. He might make it.

Tuesday, April 20

At dawn there was a very thick fog so I just dozed until I could see the dim outline of the other shore. Th

Photo by Bob Busby

)ss-hung eypresses, looking so primitive with their elled bases, narrow trunks, and feathery, horizontal)wns, looked even more distorted in the blowing mist d eerie morrning light. I thought this could have been e dawn of time. The fog slowly burned off making the y a swirl of hazy blue and soft grey.

Met a biologist, John Adams, and another man whose me I didn't eateh, who have the job of deteeting and nimizing any thermal pollution eaused by an atomie ietor downstream at U.S. Highway 1. He told me a lot out the wildlife on the river and about the river seene general. I was glad to hear that the water in this tion of the river was in exeellent eondition. While we re talking, my aequaintanees identified a marsh hawk d a Mississippi kite, and told me to wateh for a pair of allowtail kites, perhaps the most graeeful fliers in orth America, at a eertain plaee downstream.

At Highway 1 passed the atomie reaetor—something of the spaee age with huge eonerete buildings hout windows, eonerete silos the shape of eottage eese boxes and hardly a person to be seen, embodied voices floating out of loudspeakers.

Camped on a high sandbar farther downstream.

Wednesday, April 21

Fog again this morning but not so thiek. Saw an osprey early in the morning. Pileated woodpeckers are especially numerous in this seetion, saw three today flashing their handsome pattern of red, white and black. The whole river has been full of hawks. I glided in my eanoe past willow thiekets where American egrets presented long-necked, white silhouettes against the dark foliage; past forests of great oaks where prothonotary warblers shined like little golden suns against the greenness.

Toward the afternoon the elouds built up into white mountainous masses. Winds stirred the billowing erowns of oaks and rippled the water.

I saw some white birds roosting in a eypress with a dead top. Most flew off as I approaehed, but one obligingly stayed so I eould observe him elosely. Here

White Ibis Photo by Aaron Pass

was the white ibis, with his long, reddish, down-eurved bill. Thereafter I saw many flocks of these birds flying in shifting V formations, sunlight shining through their white wings, their wingtips blaek.

This seetion of river between Highways 121 and 301 has been great for viewing birds. Saw great and little blue herons, wood duekes (all along river), anhingas and another osprey in the evening.

Heard logging going on at two plaees, the trees eut right down to the riverbank in one plaee. Many serubby seetions are due, evidently, to logging in the past, though much fine forest remains. The only other intrusion by man is a large fish eamp on a high elay bluff.

Camped on a high sandbar above Oglethorpe Bluff. Wanted to eamp earlier, but this seetion has few good plaees to eamp, being very low-lying, with a few eypress and gum swamps. A fisherman told me that I eamped above Oglethorpe Bluff where Oglethorpe was ehased into the river by hostile Indians. Also told me I was elose to a boat ramp and Highway 301. The sandbar was filthy with litter before I eleaned it up somewhat. A dark thunderstorm passed over with no more than a little threatening lightning and some gusting winds.

Thursday, April 22

As I packed the canoe this morning, a cloud of white ibis passed right overhead with a whooshing, swishing sound.

Filled up on water from a spigot at Oglethorpe Bluff. Paddled a couple miles downstream past unsightly houseboat colonies. The boats generally didn't look too bad, but the bulldozed roads and garbage do. Phoned home from a tumble-down marina.

Just downstream was the ugliest sight on the river, the ITT-Rayonier plant. It is a monstrosity of black smokestacks, metal frames many stories high, rusty metal walls, a general humming and banging, and a foul odor in the air. Reminded me of the castle of the black witch. Some men were spray painting the 301 bridge. I smelled the paint in the air and saw a green film on the water. Those men were breathing that. Felt upset and paddled away rapidly.

Soon came by a half submerged old steamboat with paddle wheels and a pilot house on its two-story superstructure.

The farther I went the lower and swampier the floodplain forest became. Saw a couple osprey; water

Photo by Jim Couch

birds remain abundant. Traveled about eight miles downstream and came by a large sandy bluff with old, mossy live oaks. Entered an enchanted forest where butterflies fluttered among clusters of white, bell-shaped flowers of some kind of huckleberry.

Just as the most beautiful sight in the desert is water, the most beautiful sight in a swamp is an island. It is only early afternoon, but I decided to camp here and explore the island. First I pitched camp and wrote in the journal, sitting on the edge of the steep bluff, 20 feet above the river. Cool breezes kept off the mosquitoes. Then, feeling fatigued, I took a nap in the mosquito tent, pitched in the shade of two huge live oaks.

Feeling refreshed, took a walk around the edge of the island. Walking downstream along the bluff came to some huge oaks on the floodplain among pools of stagnant water. Here I found a king snake about a foot

Photo by Aaron Pass

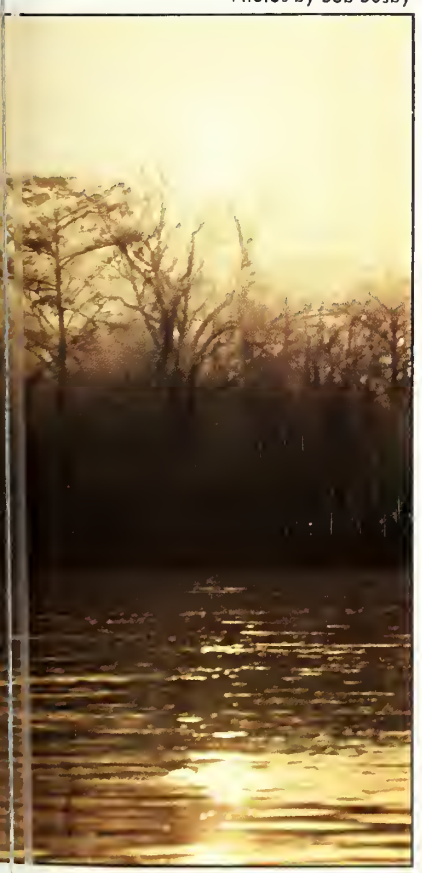
and a half long. It is a slender snake with broad banks of moist dark orange, separated by three narrow bands, black-yellow-black respectively. Found an old overgrown road on the island, and on a large beech the inscription, "Ed. Hope, 1907." Glimpsed a warbler with a yellow spot on his cheek (a black throated green warbler?). Found a large alligator hole but no tracks or alligator.

Friday, April 23

After making oatmeal at sunrise, spent the morning walking around the island trying to get some pictures. I was not too successful because at first there was not enough light in this thick forest and later the light meter quit on me. Many very old hollies. Mucking around out in the swamp a little I saw some light in the forest. Hoping for an oxbow lake, I headed out that way. I was surprised when I came out of the swamp on the river bank, and there to the left was the sandy bluff of my camp. Confused as to how this could be, I walked to the bluff and found that it was not my island, but a look-alike that I had reached by walking across a river bend. Continuing my walk, I found the tracks of a medium sized alligator (three big toes and a drag mark).

I met a fisherman checking his set lines. He showed me a striped bass several feet long and said he'd caught 55 pounds of fish the day before on 50 set lines. I often saw striped bass jumping, apparently often from sheer exuberance. One jumped six times in a row. I asked if

Photos by Bob Busby



he'd seen any alligator and he said he had eut a big one off a line a couple days ago.

Late in the morning I loaded my canoe and set off. Saw several flocks of ibis including the most impressive waterfowl spectacle I have ever seen—well over a hundred ibis wheeling in the sky like the blowing fog.

At first the river continued winding back and forth, narrow, with a swift current along the outer part of the bends, and slack water along the inner parts. In the lee of the willows I sometime saw beds of spatterdock and reeds. Saw occasional fishermen and houseboats, but most were concentrated around the area of the Paradise Fishing Camp.

Then the river broadened, deepened and followed a straighter course. Gathered some blueberries. At sunset an osprey roosted in a tree across the river. A turkey gobbled several times.

Oh yes, a deer came up to the tent last night and went through a hoof stomping and snorting act, before galloping off through the brush.

Saturday, April 24

Heard more logging in the morning. River continued broad and sandy with a fairly high floodlplain covered with young pine, mostly.

Exploring up Smith Lake, a large slough, I spotted five strange "ducks" swimming together. I paddled rapidly after them, and although they swam away as rapidly as they could, the allowed me to approach to 25 or 30 feet before taking off, treading water on the lift off. They had thin crests, long flesh-colored beaks, and were a rusty brown color. Female mergansers. Here I also saw my first yellow-crowned night heron.

A little below, I landed at old Fort Barrington, which is now a boat ramp. Walked up the road maybe 40 yards to the remains of the old walls. Bartram had passed through here many times, as I had myself on a bicycle trip two years ago. The place was full of people including a little boy with a string of large bass.

For the next several miles the river was so full of motorboats that I could not enjoy myself for all the noise. Just past the trestle the river is blighted by garbage like old washing machines put on the bank to prevent the river from eroding near some cabins.

Below the bridge there were many fewer motorboats though there were a good many houseboats. The river wound through some bends, and then opened to a broad gently winding stretch where one could see for miles. I probably ought to have camped above here so as to hit the tidal section in the morning, but there were so many motor and houseboats that I did not feel like it. Below the bends there were low swampy forests without dry, open campsites. I thought I'd try to make Darien tonight.

At the upper end of Cambers Island I met some kind of law enforcement officer. He just stopped his boat and stared at me. So I started asking questions. He told me

Yellow-Crowned Night Heron

Photo by Bob Busby

Rifle Cut

Darien Photos by Bob Busby

ıt the tide had turned and was just behind him, so I uldn't make Darien. Said there was a good place to mp opposite Butler River. Battling the wind, tide and ves, my speed varied from a snail's pace to a ndstill. It was the hardest paddling I have ever done d it took me at least a couple of hours to make the ee miles to my campsite. Passed some creeks that d into Buffalo swamp and a "Bartram Trail" sign at mouth of Rifle Cut.

nday, April 25

Awoke before dawn began to break. Drifting, just fting down the river through tall, rustling reeds, I nd this Sunday morning to be especially peaceful. ln't see many birds, just a few red-winged blackbirds, glimpsed some beautiful spider lilies and wild roses ng the shore.

n a three-hour journey today, I saw only one erman and one motorboat. This was such a contrast he day before when I could hardly enjoy drifting for noisy, darting boats. Today I could relax.

As I floated past Interstate 95 and the highway just ore reaching Darien, I could see the forested shore of mainland over the great expanse of reeds. I could ıost have been one of the soldiers from old Fort g George.

All along the way I wanted to explore the creeks that ned to lead to nowhere, but I didn't want to snag my oe on submerged rocks and sticks. I'll save that trip r another journey—with a fiberglass boat.

Drifted past Darien and met a man John Adams had me would store my canoe for me. He not only did a , but he took me all around town looking for the a e the bus would stop. We found it, and I waited r e hours for a bus to take me home.

Back to civilization.

Pulaski and the Sieg

Original at Polish Museum of America, Chicago, Illinois.

In his 20 by 12 foot painting, "Pulaski at Savannah," Stanislaus Batowski captured the moment when the general was hit as he led a cavalry charge against the British.

f Savannah

By Bill Hammaek

Savannah, 9 October 1779, a little after midnight—With the clinks and clanks of men girding for battle seemingly amplified yet paradoxically hushed by the dark stillness, a mixed force of more than 3,000 men gets set to attack, to try to drive the British out of occupied Savannah. There are soldiers under the French banner—Frenchmen, some Irishmen and black troops from the French West Indies—led by officers who are members of the French nobility, some with titles stretching back for generations, and there are Americans.

There are Georgia militiamen and Continental Army soldiers with names that in the future will sound like part of a roll call of the state's counties—McIntosh, Twiggs, Jackson, Habersham, Meriwether—along with Carolinians like Colonel John Laurens and a small, quiet man named Francis Marion who will live in history as the "Swamp Fox" and Dr. David Ramsay the historian, and men from other colonies. There are some Polish hussars.

Entrenched in this British-occupied seaport, determined to hold this vital bastion against the Allies, are English redcoats, Scottish Highlanders, Hessians, American Tories from Georgia and the Carolinas and elsewhere in the torn colonies, armed slaves, Creek and Cherokee warriors. The British defenders number around 2,400.

Slow minutes crawl by in the darkness. Suddenly the wild skirl of bagpipes shatters the stillness. It is a chilling sound to the American and French forces. It warns that the British know the Allies are coming.

Five o'clock: The fog lies heavy, like a gray shroud. Dawn breaks silvery in the haze. There's the smell of

Casimir Pulaski was one of the outstanding foreign officers who served in George Washington's army. The Polish patriot's heroic death at Savannah helped enshrine his memory in the United States.

Courtesy, Georgia Department of Archives and History.

the river and the mud and the clammy sweat of men just before battle. Advance elements of the Allies reach the edge of the woods on the right of the British line.

Five-thirty: Sounds of shots whiplash through the fog, from feints by Americans on the British left and by the French at the center. This is the signal for the main assault,*l'attaque de vive force.* Drummers furiously beat the charge, Frenchmen shout the Bourbon battle cry *Vive le roi!* The grenadiers of Old France in their white uniforms surge forward, ghosts [illegible] the mists on the warpath. Americans storm the British entrenchments. British cannon cut loose. They are loading chains, nails, bolts and all sorts of scrap along with canister. Murderous fire rips the Allies. The ground runs red as some of the bluest of the blue blood of France mingles with the blood of American patriots. In spite of the slaughter, a young cavalry general charges the British lines. He is hit. He falls from his horse. One of his men carries him back from the battlefield. He is taken to the American brig *Wasp.*

* * *

The young general's wound wa[s] fatal. He died two days later on 1[1] October as the *Wasp* sailed towar[d] Charlestown. His body was con[-] signed to the sea. He was 32 year[s] old. He gave his life for America[n] freedom a long way from home. H[e] had been exiled from his native lan[d] by its Russian conqueror becaus[e] he had fought the aggressor with such patriotic fury and daring. He ha[d] been born and raised in a small tow[n] in Poland. His name was Kazimier[z] Pulaski.

"He was an outstanding soldie[r] and patriot," says U.S. District Judg[e] Alexander A. Lawrence of Savan[-] nah, the distinguished Georgia his[-] torian whose book *Storm Over Sa[-] vannah* is the definitive work on thi[s] pivotal battle.

No man from overseas who cam[e] to America to fight for liberty in th[e] Revolution has been honored by a[s] many memorials in this country a[s] Kazimierz—the Christian name ha[s] been anglicized to "Casimir"—Pu[-] laski, not even General the Marqu[is] Marie Joseph Paul Yves Roch Gi[l-] bert du Motier de Lafayette. Fro[m] the time shortly after Pulaski's deat[h] in 1779 when a section of Germa[n-] town, Pennsylvania, started callin[g] itself Pulaskitown, his name has bee[n] taken by counties, cities, town[s] streets, schools and parks throughou[t] the United States. Highways an[d] bridges have been named for hi[m], statues and monuments have bee[n] erected to his memory. Hundreds o[f] civic, social, sports and veterans' a[s-] sociations bear his name. He's th[e] hero of an early American opera. Henry Wadsworth Longfellow an[d] other poets have sung of him. Pain[t-] ings and busts and plaques and m[e-] dallions of him abound; at the 193[3] Chicago World's Fair, Stanislaus Batowski's "Pulaski at Savannah" won second place in a competitio[n] for America's most popular painting. Earlier, in 1929 Congress designate[d] October 11 as Pulaski Day an[d] recognition of the day is widespread it's observed in cities like New York, Detroit, Chicago and Savannah wi[th] parades, pomp and ceremony. F[or] several years, Poland has marked th[e] day with speeches in Warka, where Pulaski was born.

No state honors Pulaski more than one where he fell. Savannah citi- is wanted to erect a monument to ı; Lafayette laid the cornerstone 182[illegible] on his visit to the city. While t monument failed to rise, in 1853 the 74th anniversary of Pulaski's ıth, Savannah unveiled a memo- of marble, the work of Polish lptor Robert L. Launitz, in the t's Monterey Square. Another are in Savannah bears Pulaski's ne. Savannah's Fort Pulaski, a il War fortification, is a U.S. Na- ıal Monument. There's the Geor- county of Pulaski and the Geor- town of Pulaski.

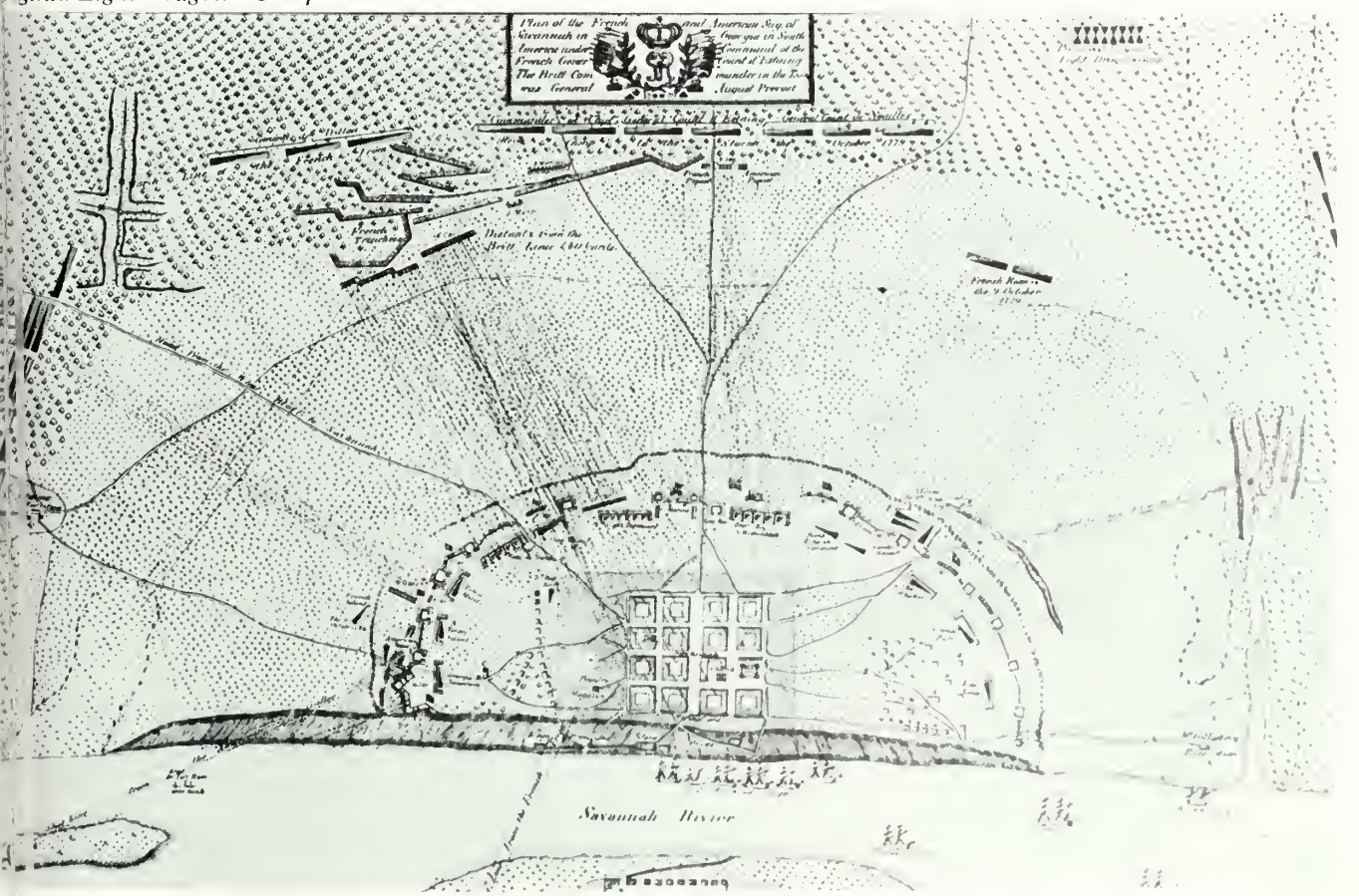
"Why this long sustained outburst ıoring Pulaski?" asked Dr. Joseph Wytrwal of Detroit, historian and cator, in an article in *The Geor- Historical Quarterly* about "Me- rials to General Casimir Pulaski he United States." Dr. Wytrwal tinued: "There were other for- ıers who came to America to fight for liberty; but even Lafayette himself . . . has not been honored with as many memorials as has Pulaski. May not the answer be the fact that Pulaski was the only one of the distinguished foreigners who was killed in the American Revolution?"

Dr. Wytrwal agrees that Pulaski's courage and elan may contribute to American admiration of the Polish patriot. Many other brave men from overseas died the death of heroes in the Revolution. But Pulaski was indeed a "distinguished foreigner," a leader, and he earned his distinction the hard way. He was born in 1747 in the small town of Warka, near Warsaw. As Joseph Wiewiora writes in a brief biography of Pulaski, Russia started reaching out for Poland during Pulaski's early years. Pulaski's first encounter with the Russians took place in 1767. The 20-year-old man was trapped with 200 fellow Poles, encircled by 4,000 Russian soldiers. But Pulaski and his compatriots broke through and after a long hard journey, made it to Krakow.

The following year he and his father Jozef and a group of patriotic gentry formed the Confederacy of Bar (a city in a Polish province) to defend Poland from Russian aggression. Pulaski's father, a wealthy man, was known as Pan Jozef. "Pan" is the equivalent of the English "Mr." Casimir Pulaski was not a count. Aloysius A. Mazewski, president of the Polish National Alliance of the United States, says "There are no counts, marquises or barons in Poland. The parliament of Poland prohibited such titles in early 15th century acts. The Commonwealth's landed gentry was democratic." Pulaski was given the title of "Count" in America, Mr. Mazewski suggests, because other general officers from Europe who served in George Washington's army were titled—Marquis de Lafayette, Baron von Steuben.

The young Casimir Pulaski soon

s diagram of the opposing forces, from The Siege of Savannah *by C. Jones, published in 1874, indicates at upper right "Pulawsky & ginia Light Dragon's Camp."*



became one of the leading guerrilla warfare commanders in the Polish confederacy. When he was 22 he was elected marshal of Poland's fighters for freedom. Two years later he was acclaimed as a national hero when he defeated overwhelming Russian forces at Czestochowa. Pulaski's band was never large but he learned how to make use of the terrain in partisan fighting and developed into a superb strategist. The Russians began to fear him, and fearing him, wanted him out of the way. They were able to force him into exile in 1773.

For the next three years, in the Balkans and Turkey, he struggled to organize military action against the Russians. He failed. Disheartened, he came to Paris in November 1776. He listened to the talk about the American colonies fighting for their freedom. In exile, unable to put together a force to battle for independence in his own country, he started looking across the sea. There, he could contribute to a struggle for liberty.

Already known to the French Court as an outstanding military leader, he was recommended to Benjamin Franklin, then in Paris, who was looking for volunteers to serve the American cause. Franklin gave Pulaski letters of recommendation to the Continental Congress and to General George Washington. Arriving in America in July 1777, Pulaski was introduced to Washington by Lafayette. At the time, Pulaski did not understand English but before long he had learned enough of the language to write letters to the Continental Congress. Assuming temporary command of Washington's cavalry detachment, Pulaski saved Washington's army supplies at the Battle of Brandywine by repulsing a British attack. The Continental Congress commissioned him a brigadier general and gave him command of four light cavalry regiments. Pulaksi, however, was dissatisfied with the minor role assigned to the cavalry. He resigned his commission as commander of the cavalry corps and submitted a plan for the formation of an independent corps of cavalry and infantry. Washington endorsed the plan and it was approved by the Continental Congress, with Pulaski retaining his rank as brigadier general. The Independent Corps, soon known as Pulaski's Legion, fought skirmishes in New Jersey and the surrounding area until February 1779, when the Legion was ordered to the southern theater of operations to join Major General Benjamin Lincoln's army.

Pulaski and a handful of his Legion were first to make contact with the French force headed for Savannah commanded by that tall, elegant, tireless, gallant, ambitious, courageous, high living gambling man, descendant of a family entitled to wear the coat of arms of France, that *tres haut et tres puissant seigneur,* Charles-Henri, Comte d'Estaing, Vice Admiral of France, Lieutenant General of the Armies of the King, Chevalier of the Orders, Commander-in-Chief of the Forces of His Most Christian Majesty in America.

On September 8, d'Estaing's great French fleet had showed up off the coast of Georgia—22 sail of the line, 10 frigates and other ships carrying thousands of troops—up from the West Indies to help Americans destroy Britain's military power in the Southern colonies. And "the key to the southern provinces," wrote British Chief Justice Anthony Stokes, was Savannah. However, the sudden and unexpected appearance of the mighty French naval force shocked the small British garrison in Savannah, ill-prepared as it was for an attack from such a powerful antagonist. But the French armada galvanized the Americans in South Carolina. General Lincoln, commanding the Southern Department, hastily concentrated his available forces to join the French in the attack on Savannah.

As Judge Lawrence writes in *Storm Over Savannah,* "Little love was lost between the French and the Americans." The mutual disesteem started at the top, between Count d'Estaing and General Lincoln, a grave, pious New Englander. Lincoln was a patient soul, and he needed to be, for M. le Comte was an imperious man with a tongue like a lash. Lincoln remonstrated with d'Estaing for demanding that the British surrender to the ar of the King of France with not a wo about the Continental Congre D'Estaing might have asked how t British could surrender to an ar which had not yet arrived. By Se tember 13, the French vanguard h advanced to a road-crossing thr miles from Beaulieu, the Fren beachhead 13 miles below Sava nah. On the 14th or 15th, d'Estai and Pulaski met near Beaulieu a "cordially embraced," according Captain Paul Bentalou, who w there. By September 16, 2,0 French troops were three miles fr Savannah. That's the day d'Estai ordered the British commander, M jor General Augustin Prevost, to su render. Prevost, called "Old Bul Head," was an old soldier who bo near his temple an unsightly s from a wound received when he w serving under Wolfe at Queb While known as a man of coura Prevost was not considered especi ly forceful in Georgia. He was, ho ever, adroit enough to stall the po erful French force that threatened overrun his smaller garrison. asked for terms and more time consider the question of surrend suggesting a truce of 24 hou D'Estaing granted the request. T British wasted not a minute. D flew and sweat poured as they c in, entrenching themselves. But w bolstered the British far more th the time they had won by the tr was the arrival, that very day of 16th, of Lieutenant Colonel Jo Maitland of the 71st Regiment Scotch Foot and his 900 vete troops, down from Beaufort to b up His Majesty's defense forces Savannah. Maitland, his right sle empty for 20 years since a can ball carried away that arm in a v tory over the French in Spain, ca from an illustrious family of Sc land. Beloved by his Highland w riors, admired by friends and spected by foes, Colonel Maitla was a man of tall personal and m tary stature, a man of raw coura whose Scottish burr was strong in h reply from the British council of w to d'Estaing's demand to capitul A little before the expiration of h truce, General Prevost said no.

General Lincoln's American force me up during the 16th, and the lies started entrenching themves. Many observers wondered y d'Estaing had not attacked the itish earlier. Hessian Captain ıann Hinrichs, with his dispasnate military eye, asked "Why did not on the 13th, or at least on the rning of the 16th, storm and take ; miserable sand pile with fixed onets?" To Hinrichs it was "inceivable" that d'Estaing permitthe "slightest delay after the h." They say that the truce ıted the British was incompresible to Colonel Francis Marion. usually quiet Swamp Fox was to have bellowed "Who ever rd of a thing like this before—s allow an enemy to entrench, and ı fight him."

D'Estaing could reply that he was t ready for an earlier attack in ficers, but as Judge Lawrence writes "It was useless to argue with Monsieur le Comte." General Lincoln acquiesced in the plan of attack. On the morning of the 9th, at 2 o'clock, d'Estaing reviewed his troops. Shortly after daybreak, 3,000 Allied fighting men hit the British lines. They sustained heavy losses. Count d'Estaing was wounded twice. According to David Ramsay the historian, Major Thomas Pinckney of South Carolina and Major Maciej Rogowski of the Pulaski Legion who in his memoirs said he carried Pulaski from the battlefield, Pulaski fell while leading a cavalry charge on the British lines. D'Estaing said that Pulaski's death was "an infinitely great loss to the American cause."

Six o'clock, 9 October 1779: The Allied order to retreat comes. The carnival of death ends. The attack has failed. The British hold Savannah.

"The failure of the bloody assault by the French and American forces upon the British lines on October 9th, 1779, in which General Pulaski was mortally wounded, affected the whole course of the American Revolution." So writes Judge Alexander A. Lawrence in his *Storm Over Savannah,* the source for the account of the attack in this sketch of the battle and of Pulaski. Judge Lawrence quotes the Royal Governor of Georgia at the time, Sir James Wright: "I clearly saw that if this Province then fell, America was lost . . . " Judge Lawrence continues: "With good cause the defeat of the Allies at Savannah was celebrated in London by the firing of the Tower guns and at New York with parades. Had Georgia been lost, the only foothold remaining to George III in his American colonies would have been the city of New York. British morale was tremendously boosted by the victory at Savannah which steeled the Ministry in its decision to continue the effort to subdue America . . . Three cruel years of civil war that followed in Georgia and the Carolinas might have been spared if Savannah had fallen to the Allies in 1779."

The Georgia town of Pulaski and county of Pulaski, and Ft. Pulaski near Savannah, are all named in honor of the general.

Photos by Bob Busby

. Many of his troops were not re. The Americans, on the h from South Carolina, had held up in crossing the Savan- River because flats from Au- had not arrived on time and a ad to be built.

r the rest of September the Al- rected batteries and extended r entrenchments closer to the h. On October 1, a ship can- le on Savannah was loosed and e 3rd, French batteries started arding the city, causing consid- loss of life among men, women hildren. There was widespread ge. The bombardment lasted ays.

en d'Estaing's decision to at- n force came, the decision was subject to attack by French of-

200 Years of Wildlife

By Dick Davis
Art by Mike Nunn

sportsman's lot in colonial America was good and game was plentiful, but there were some drawbacks . . .

Certainly we have all wondered what game ...ned the woodlands of the South in the ...0's, what species were present then that are ...here now, what it was like to travel and ...p and hunt in the virgin forests of the ...ier and the untamed wilderness.

What hunter among us has not waited on a ...stand and envisioned what it was like to ... the woods and trails of early America.

Georgia in 1768-1776 was geographically ...demographically a land of vast wilderness and few people. Habitation, trade, commerce and government were centered along the coastal area. Inland from the coastal settlements, Georgia in 1776 was largely virgin territory for the white man. The frontier was close at hand but poorly defined. Isolated pockets of settlements were spotted and stabbed into the wilderness.

In colonial times the environment of Geor... and the South had not been markedly affect...

by the colonists. Man had not yet had time or numbers to disrupt the cycle of nature. Communities, settlements and even the towns and cities of 1776 were minute compared to the megalopolises of today, the entire Southland was predominantly rural, and as one moved inland from the coastal areas there was only the wilderness, at times both friendly and hostile, but always challenging.

Man's influence had not yet brought imbalance in nature. Natural wildlife predators held the various species in balance with available cover and food; occurrences such as wild forest fires provided renewed undercover vegetation for wildlife forage and did what controlled burning does now; streams, rivers and lakes ran clear, pure and were their own waste-treatment facility. The red man's use of the land did not abuse it, as the fast-increasing populations of the white man were to do.

The paleface poacher had not yet appeared. Not yet begun were the commercial slaughters of some wildlife species which were to occur as the frontier moved west.

Some of our best sources of information on Georgia's wildlife, the flora and fauna of the mid-1700's, are the descriptions of the travels of famed naturalists John and William Bartram.

John Bartram's "Diary of a Journey through the Carolinas, Georgia and Florida 1765-66," William Bartram's "Travels in Georgia and Florida, 1773-74," and "The Travels of William Bartram" edited by Mark Van Doren are storehouses of descriptions of southeastern animal and plant life in the early days of America.

We know that game was usually in abundance—both John and William Bartram repeatedly tell of living off their harvest of game and fish in their travels. John Bartram often had "fresh meat in the shape of Deer, Bear and Wild Turkey" and "the rivers and lakes afforded an unlimited supply of fish that was no doubt frequently drawn upon."

On one of the islands off "Savanna" —in the Spring of 1773—possibly it was Skidaway Island—William Bartram mentions that "the tyger, wolf and bear hold yet some possession as also raccoons, foxes, hares, squirrels, rats and mice, but I think no moles. There is a large ground rat, more than twice the size of the common Norway rat . . . Opossum are here in abundance, as also are pole-cats, wild-cats, rattlesnakes, the glass-snake, the coach-whip snake and a variety of other serpents."

A FIRE-H[illegible]

A partial list of major wildlife species in southern colonial America includes most that are known today, such as deer, turkey, squirrel, ra[illegible] coon, and many more. Also me[illegible] tioned are forms that are now e[illegible] tinct: the passenger pigeon, wo[illegible] cougar (tyger) and others that a[illegible] rare—the bear, bald eagle and gold[illegible] eagle.

Were elk and buffalo in Geor[illegible] in the Middle 1700's? According t[illegible] William Bartram, writing of one o[illegible] his visits to our state, "The buff[illegible] once so very numerous, is not at t[illegible] day to be seen in this part of [illegible]

Courtesy, Georgia Department of Archives and History.

The early settlers took game in the most expedient manner possible. They felt that nature's bounty was limitless.

cu ntry; there are but few elk, and t e only in the Appalachian moun- t s. The dreaded and formidable r t esnake is yet too common, and a riety of other serpents abound, p t eularly that admirable creature, t glass snake . . ."

T e Georgia coastal areas, from S Mary's and Cumberland Island n t to "Savanna" and Skidaway w doubtless a second heaven for w t rfowl.

D ucks, brant, geese and rails no doubt streamed into the almost limitless coves, bays and marshes of the state's coastline. Canada Geese were seen in great numbers during the migratory season along the salt water banks of the state.

In the agriculture of the plantations and smaller farms which stretched inland along the sea coast, waterfowl found good feeding grounds as they moved north and south in the flyways.

The sounds and inlets of Georgia's coastal islands abounded with an almost endless list of game fish and other species and shellfish, crabs, shrimp and clams. As William Bartram tells it, "the coasts, sounds, and inlets environing these islands, abound with a variety of excellent fish, particularly Rock, Bass, Drum, Mullet, Sheepshead, Whiting, Grooper, Flounder, Sea Trout (this last seems to be a species of Cod), Skate, Skipjack, Stingray. The Shark, and great black Stingray are insatiable cannibals, and very troublesome to the fishermen. The bays and lagoons are stored with oysters, and a variety of other shell-fish, crabs, shrimp. The clams, in particular, are large, their meat white, tender and delicate."

In the 200 years of our nation's history much has happened to our game populations. Many of the occurrences and the results have been to our discredit, but during the past four decades we have, in most of the Southeast, made significant gains in rebuilding and stabilizing our game populations, in achieving dramatic increases in numbers of some species such as the whitetail deer, and in halting the rush to extinction of others. It is believed by many that there are now more deer in Georgia than during the days the Indians attracted deer to the "game pastures" around their villages. These "game pastures" were burned-off areas near the villages.

Unfortunately, some of the species which were to be seen in the southern woodlands in colonial times have either disappeared forever, been forced to flee to other areas of the North American Continent, or been so reduced in numbers as to have been brought to the brink of extinction. Notable among these are the passenger pigeon, which fell to unregulated commercial shooting in the late 1800's; the cougar or panther—"painter"—or mountain lion which was reduced almost to extinction be-

Besides unregulated hunting, industrial progress and the demand for raw materials from field and forest were consuming wildlife habitat.

Market scene, courtesy, Geargia Department of Archives and History.

The frontier-ethic persisted into the early twentieth century. Success was still measured by the weight of the bag, and the most game "belonged" to whoever could get the most.

Caurtesy, Arkansas Game and Fish.

cause of its reputation as a livestock predator and man attacker; the alligator, now a fully protected species which, though apparently making a rapid comeback, was ruthlessly hunted almost to the point of extinction for its valuable hide; and the ivory-billed woodpecker which was found only in very remote areas and is feared extinct because of habitat destruction.

The cougar or "painter" was probably always rare in many parts of Georgia though it was commonly seen in the mountainous areas of some states until about 1850. The presence of the cougar tended to be cause for alarm and this may have contributed to its being eliminated in some areas.

The wolf like the cougar was prob- reduced in numbers by the early wilderness settlers in eastern Georgia in the 1700's, for much the same reason.

These two species obviously made a big impression on the early settlers, as evidenced by the fact that we have such place names as Panther Creek, a community of Tiger and Wolfpen Gap.

Those who have studied the history of wildlife in Georgia report that there was a tremendous decimation of many wildlife species in the South beginning shortly after John Bartram traveled Georgia and continuing until approximately 1850.

When the frontier cabin dweller of the 1770's went forth hunting to seek meat for his table he probably had a wide variety of choices.

Even in that day as now, the whitetail deer was prime big game and in sufficient abundance to provide m a fine feast and help stock the smo houses.

Rabbits and squirrels could taken readily by hunters and v probably a staple in many fall winter diets.

The wild turkey—which had b a menu feature at the Pilgrims' Thanksgiving—was the princ course for many a meal consu by colonial Americans.

How did hunting as practice America of the Revolutionary compare with the sport today? can only speculate.

There is a tendency to think successful hunting in the colo Southland was easy, what with g abounding and hunting limited comparative few.

This may be an erroneous assu

. To take wild game in the days he original 13 colonies may have alled or exceeded the challenge hunter faces today.

abitat was almost limitless: cover, l and escape areas stretched in ost every direction. Today, these s are limited; sometimes severe- Game that once encountered man d flee almost endlessly. Encoun- with man probably produced in life a far greater psychological t than in the game of today.

Wildlife living today encounters in some way or ways almost birth. Man and his civilization s actions, his noises and his es—are a part of the environ- of most wildlife. The frequency and multiplicity of wildlife's encounters with man probably condition wildlife to some degree of accommodation with man and thus make game more prone to remain in proximity to man. Thus, once the hunter in this bicentennial year enters an area of game habitat, wildlife possibly may be more readily stalked and taken today than in the days of the continental rebellion.

Another big advantage enjoyed by today's hunter is the variety and sophistication of weapons. The .30-30 and .30-06 with scope are a far cry from the flintlocks and muzzle loaders of colonial America.

The mounted fox hunt—riding to the hounds—is a type of hunting that became a colonial classic and has continued to this day as much a social highlight as an outdoor sport. Primarily a sport of the aristocracy, the quarry then, as now, was the gray or the red fox.

How did they fish in the 1770's in Georgia?

William Bartram vividly describes one method: "They are taken with a hook and line, but without any bait. Two people are in a little canoe, one sitting in the stern to steer, and the other near the bow, having a rod ten or twelve feet in length, to one end of which is tied a strong line, about twenty inches in length, to which are fastened three large hooks, back to back. These are fixed very securely, and covered with the white hair of a deer's tail, shreds of a red garter, and some parti-coloured feathers, all which form a tuft or tassel, nearly as large as one's fist, and entirely cover and conceal the hooks: this is called a bob. The steersman paddles softly, and proceeds slowly along shore, keeping the boat parallel to it, at a distance just sufficient to admit the fisherman to reach the edge of the floating weeds along shore; he now ingeniously swings the bob backwards and forwards, just above the surface, and sometimes tips the water with it; when the unfortunate cheated trout instantly springs from under the weeds, and seizes the supposed prey. Thus he is caught without a possibility of escape, unless he breaks the hooks, line, or rod, which he, however, sometimes does by dint of strength; but, to prevent this, the fisherman used to the sport, is careful not to raise the reed suddenly up, but jerks it instantly backwards, then steadily drags the sturdy reluctant fish to the side of the canoe, and with a sudden upright jerk brings him into it."

Such was the outdoors wildlife of Button Gwinnett, Lyman Hall and George Walton, Georgia's signers of the Declaration of Independence. Such was the Georgia wildlife scene when on a hot summer day in far away Philadelphia these three Georgians joined with others in pledging "our lives, our fortunes, and our sacred honor" to give birth to our nation whose 200th anniversary we celebrate in this bicentennial year.

Many creatures, driven to the edge of extinction in the early 1900s, have been brought back by scientific wildlife management. White-tailed deer, wild turkey, wood duck and other species, once very rare, are now abundant. Continuing wildlife management programs and regulated hunting pressure are safeguards for their future.

Voyage of the Unicorn

Bill Hammack

Photography by Bob Busby

The sight of a tall sailing ship may arouse a wanderlust or appeal to the romantic in you or just pleasure your eyes with the ship's grace and beauty. What the sight of the brig *Unicorn,* heading up the Savannah River past Cockspur Island with her sails furled and her masts and yards silhouetted against a warm blue morning sky, aroused in Bob Busby the photographer and me was an urgency to get on board because that was our mission and we couldn't have much time since *Unicorn* had moved up early. A tall sailing ship can make a man seem to hear her siren song beckoning him to come along with the wind to supposedly enchanted places far across the sea. What Busby really actually heard as we leaped onto *Unicorn's* deck from the pilot boat was the quiet thrum of the sailing vessel's throttled-back 500-horsepower auxiliary diesel nudging her through the water. It sounded sweet to us for we had made it aboard the ship, with the help of the Savannah pilot.

Captain William T. Brown, master pilot of Savannah, had granted permission for us to board a pilot craft that would take us out to *Unicorn.* Ellison Council, chief dispatcher of Savannah Bar Pilots, told us one Monday morning to hasten to the pilot station on Cockspur since *Unicorn* had made better time than expected. Barry Godwin, captain of the motor vessel *Savannah Pilot,* and Bubba Fitzgerald, engineer, gunned us alongside the sailing ship and Busby and I jumped aboard *Unicorn* over her gleaming polished mahogany deck rail.

Unicorn, out of Ft. Lauderdale, Florida, is a brig of 280 tons, 140 feet overall, bigger than the 200-ton, 100-foot *Savannah,* first steamship to cross the Atlantic, who paddlewheeled downriver from this Georgia seaport in 1819 wearing a plume of black smoke spangled with sparks like fireflies to sound the commercial death knell of brigs like *Unicorn* and clippers and all the other ships that rode the wind.

With 27 sails, *Unicorn* carries a total of 7,800 feet of sail on board. She can make 6 or 8 knots. The figurehead on her prow illustrates her name. It is the head of a unicorn. "Friend of mine who's a sculptor carved it for me," says Jacques Thiry, captain of the ship. "Carved it out of an old beam from the Fulton Fish Market in New York." The painted carving is authentic—the figurehead has the blood-red horn shading into white at the tip and the blue eyes of the unicorn, *Unicornis fabularis.* Brigs—brigantines—are

full-rigged ships with two masts. "Their history goes back for centuries," says Captain Thiry. "They were sea workhorses for hundreds of years, fading from the commercial picture in the early 1900's. There are maybe four or five left in the world. Two are in museums. And here is *Unicorn*, still working. Why did brigs fade out? It takes a minimum of 12 men to handle this ship. And that comes to just too much wages for a ship this size to move cargo profitably."

Unicorn is Captain Thiry's dream.

Question: Captain Thiry, are you married?

Captain Thiry: Yes. To this ship.

Jacques Thiry is a bearded 36-year-old man born in France and raised in the United States who has always loved the sea. The first craft he ever sailed on, when he was a small boy, belonged to his grandfather. Her name was *Unicorn*. When Jacques Thiry bought a Finnish ship named *Lyra* in 1971 he changed her nam "*Lyra* meant nothing to me," he says. "*Unico* does."

He also changed her rigging. The ship w born as a two-masted schooner in 1948 in Fi land. "Finnish economy had been shattered World War II," said Thiry. "The Finns need ships for commerce as they struggled to get ba on their feet. Finland had no money but she h have great forests. So the Finns built sail ships of wood from her trees. The *Lyra*, out Sibbo, worked for 23 years as a commercial ve sel. I liked her but I always wanted to sai square-rigger. I decided to build my own."

He changed the schooner *Lyra* to the b *Unicorn* in Sweden during 1971 and 1972. freighted around the Caribbean, up and do Central America, for more than a year, th sold the ship to William Wycoff Smith of Phi delphia. The Smith family trust leased the ves to the Florida Ocean Sciences Institute, a no profit organization devoted to helping youth f offenders in trouble with the law—young m in their teens—turn themselves around. Th Institute uses the sea to modify behavior a teach work habits, not necessarily to train you men only in nautical skills like seamanship a diving—while they learn these, they're al trained in other employable areas. "Most o them do well," says Kerry Dale Clemmons f Associated Marine Institutes, the federation f which the Institute is a part. "Most of them tu into good kids. I'd put 'em up against anybod

Captain Jacques Thiry

hiry agrees. During the past one and a half s under his direction Institute students ped *Unicorn* down and rebuilt the ship from keel up. Some of the members of his 12-man v are Institute graduates. His 10 cadets on rd are still in Institute training. He runs an edingly taut ship. His officers are cut of the e tough sailcloth—Bill Emery, the first mate; rey Berry, the sailing master; Jim Schirmer, engineer, and Bruce Craven, the assistant ng master. Most of the officers and crew are ded—one reason this is a hairy bunch is use they were asked to grow whiskers for ABC-TV movie "Roots," a saga of the 18th ury that was filmed around Savannah. ots" is from the book by Alex Haley about search for his African ancestors. *Unicorn* s the role of a slave ship skippered by TV Edward Asner.

On this voyage to Georgia, the brig played a ing role in "Op Sail '76 Savannah," part of eration Sail '76," a national bicentennial ram which brought tall sailing ships from ver the world to New York City harbor on ourth of July this year. Op Sail '76 Savannah, headed by retired banker Mills B. Lane, hosted a parade of wind ships visiting the Georgia seaport this summer, like the full-rigged *Danmark*, the Danish Navy's sail training ship, and Canada's *Bluenose II*, replica of the renowned racing schooner, a 143-footer carrying 12,000 square feet of sail, with a mainmast towering 130 feet.

Second windjammer to arrive for Op Sail '76 Savannah, *Unicorn* lazed up the river after her swift passage from Florida. We met the tanker *Chancellorsville*, out of Wilmington, headed downriver and out to sea again. We passed the statue of Florence Martus, who became a Savannah legend. Born on Cockspur Island in 1868, sister of a lighthouse keeper, she fell in love with a young seaman—so the story goes—and when he sailed away, she promised to wave at every ship entering the harbor so that her greeting would be the first to welcome him when he came back. Her beloved never returned. But Miss Martus, faithful to her promise, for more than 40 years waved a handkerchief by day and a lantern by night as greeting to every incoming vessel. The Waving Girl of Savannah became known wherever sailors went the world over, from Rangoon to Singapore, from Liverpool to Melbourne. She died in 1943. Her statue still waves to ships coming in from the sea. As *Unicorn* moved upriver, in the distance ahead of us were the twin spires of the Cathedral of St. John the Baptist reaching toward heaven, the blue-green dome of City Hall and farther on, the green tracery of the Talmadge Memorial Bridge against the blue sky. Past the tugboats of the Atlantic Towing Company, where the vigorous old towboat *Cynthia*, an Associated Press dispatch boat in the Spanish-American War, was moored with some of her younger and brawnier mates, tugboats like the big *Savannah* and *Frank W. Spencer*, we eased toward *Unicorn's* destination, a dock near Ships of the Sea Museum. The brig and her captain and crew were welcomed by Savannah Mayor John P. Rousakis and his executive assistant Al Henderson; Joseph H. Moore, director of the Ships of the Sea Museum, and Mills Lane and the Op Sail committee and some other citizens.

Perhaps the little cruise that Bob Busby and I made on *Unicorn*, brief as it was, may have been enough to bring a whisper of the siren song of a tall sailing ship to our ears. The sea is pitile[illegible] and a sailing vessel is a demanding mistre[illegible] but if I were a skinny lad again, maybe . . .

Letters to the Editor

I seldom write to editors—only send scripts and cuss them—but this is a sociable letter from the old "Injun."

First, I want to tell you I think *Outdoors in Georgia* has been 100% improved in last couple of years. Format, color, photos, diversity of material and factual data have made it into a top state mag. I used to think *S. Carolina Wildlife* was about the best I received (I get 8 state outdoor mags), but your new *Outdoors* is rapidly forging ahead, and it's good reading for all segments of our outdoor-minded public. Keep it coming.

Second, I want to start pushing more Georgia fishing in my local column. Many of our Augusta readers do not realize the varied types of fishing in Georgia, or the areas they are located, and all within short distances.

Wally Walworth
See./Treas.
Georgia Outdoor Writers Association

* * *

The February issue of *Outdoors in Georgia* has made the rounds at Coleman, and we have all admired the fine photos of the Coleman lantern which appear with your article "The Night Stalkers."

I understand that the practice of covering the globes with aluminum foil for flounder fishing goes back a long way, and no doubt helped inspire the floodlight reflector which Coleman now makes for our 220 and 228 lanterns to direct lantern light. These were discontinued for a time, but are now back in the Coleman accessory line.

Congratulations on a nicely done story. While I have never been flounder gigging, your story makes it sound like something I'd like to do.

Katie McMullen
Public Relations
The Coleman Company, Inc.

I look forward each month to the arrival of *OIG*. It is a fine magazine of which I, a native Georgian, am proud.

I am puzzled over one thing, though. You used to print, on a regular basis, the schedule for the managed trout streams. Why did you stop? Since I enjoy fishing in the Warwoman and other areas, I need these schedules to aid me in picking the correct days for me to visit.

Keep up the good work.

Frank Thomas, Jr.
Augusta, Georgia

* * *

Here are some statistics that might be of interest to people who are willing to work toward increasing the wood duck population.

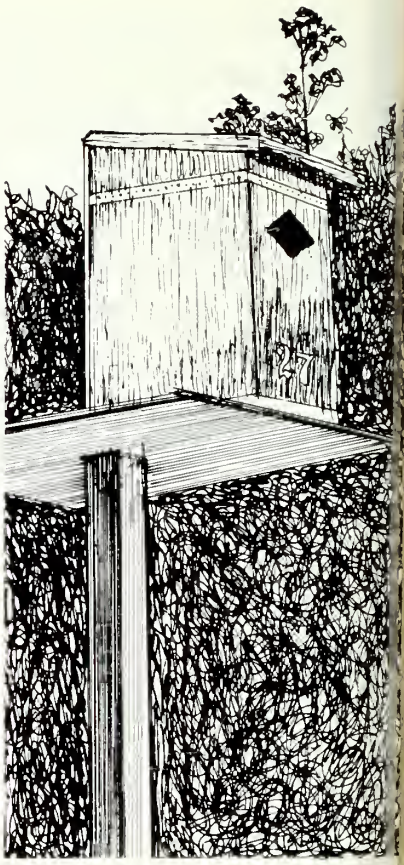
In 1973 my three brothers, a couple of friends and I began a project that has truly been an interesting and rewarding experience. We placed a wood duck nesting box in L. A. Willis' 6 acre pond near Little River. Results were positive. In February of 1975 we placed 15 more boxes, and during March of this year we added another 21. A total of 37 nest sites, all located in the same pond.

Ducks nested and raised each year in the box that we placed in 1973. The 15 that we placed in 1975 were all used but one. We completed our annual check on May 8th this spring and found eggs in 25 of the 37 boxes.

A conservative estimate from our observations is that seven ducklings hatched and left each nest each year they were used. That figure would give us a total hatch out of 291 since 1973 and 263 of them in 1975 and 1976. One box that we checked on May 8th had 11 freshly hatched ducks. The next day, ten of them had left the nest; one was dead.

Our greatest problem is with snakes. In 1975 we killed three that were inside the boxes and one outside. This spring we killed two more that were in the boxes. All of them had swallowed eggs. The most swallowed was three.

This spring we nailed 18" aluminum strips around some of the trees. Both snakes found this spring were in boxes that we had supposed would be predator proofed by using the aluminum.



Nests built from 8" lumber w
used as readily as the ones built w
12" lumber. We did not "clean o
the nests after the 1975 nesting s
son, and it made no difference. H
ever, we will clean them out this
and refill with clean shavings.

Boxes back-to-back on one t
or over each other on the same t
were nested in. One structure
made from some scrap cypress,
it had four separate units side
side. Both outside nests were use
1975 and 1976.

I offer a word of caution to
spring and summer record kee
Duck boxes are ideal sites for wa
to build their nests, also. My resp
for them kept me out of serious t
ble when I began to open the to
a box filled with angry wasps.

If you enjoy duck hunting
have an appreciation for wild
constructing and placing wood
nesting boxes and observing the
tivity is simply a way of deepe
and extending your enjoyment fo
months instead of about two mo

Bud Willis
Moultrie, Geo

Coming Next Month...

State Bird. Len Foote profiles the brown thrasher, Georgia's State Bird, and recounts the history of its selection.

Six Lonely Graves. At Andersonville Historic Site, six graves lie apart from the main graveyard. Howard Bushnell's story explains why these men were separated from their fellows.

Sea Serpents. There are many dangers in the sea according to Jingle Davis. The really dangerous ones are those which injure hundreds of vacationers each year and yet are seldom reported.

The House of Vann. James Vann was a powerful figure in the Cherokee nation. No simple savage, he lived in a brick mansion on his plantation. Susan Wood takes us there in August *OIG*.

Outdoors in Georgia

7/76

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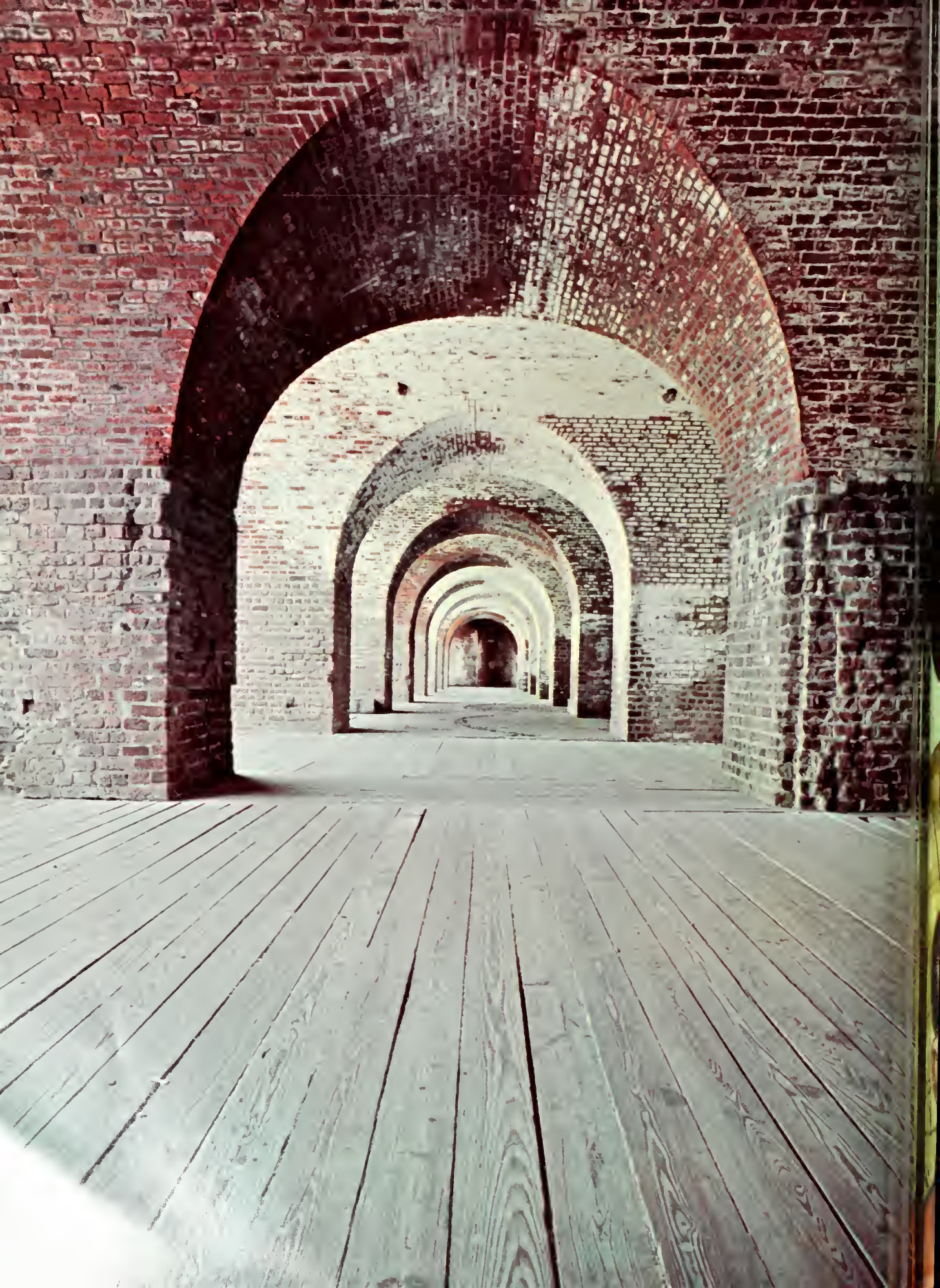

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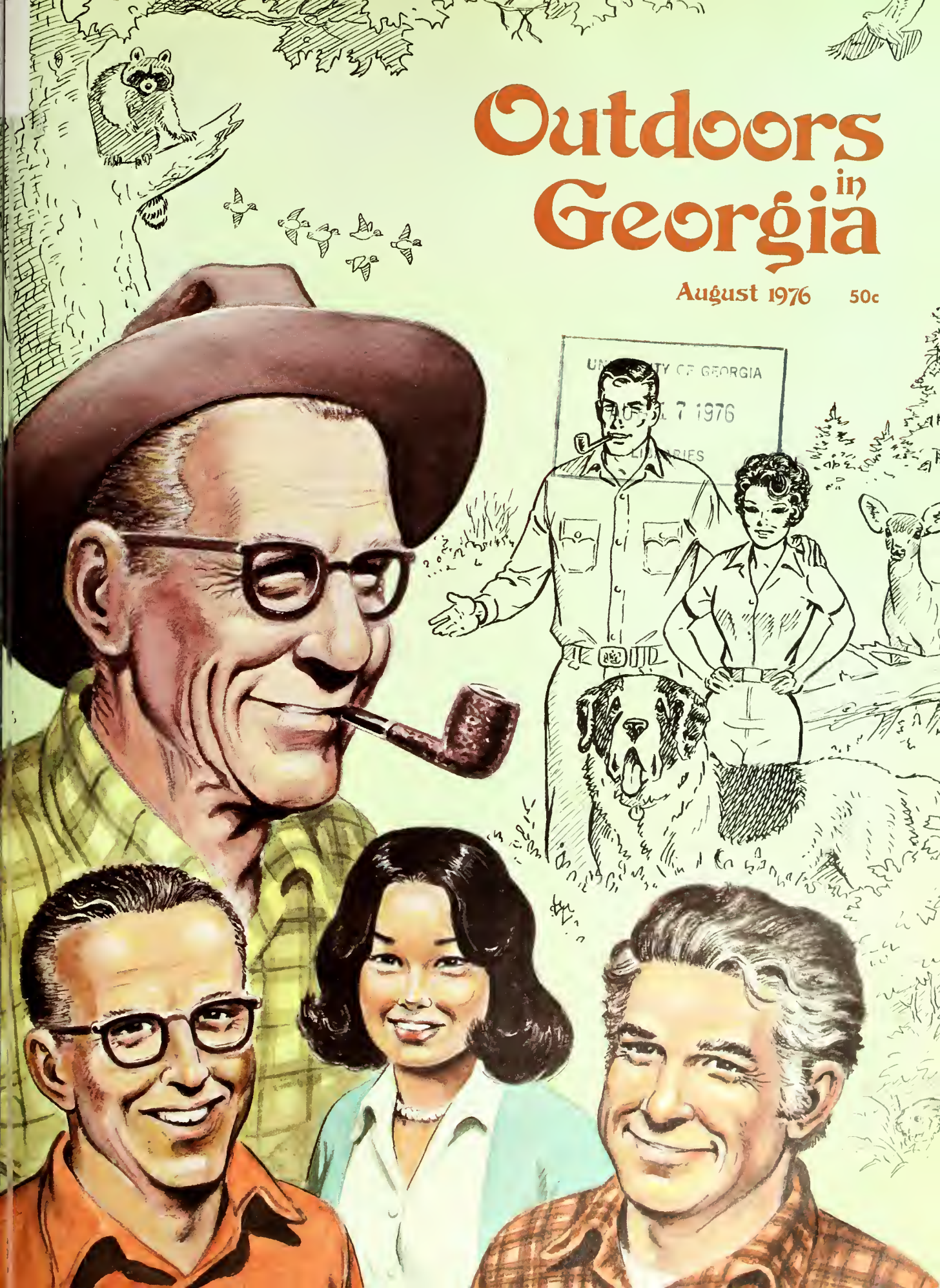

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MAGAZINE STAFF
Phone—656-5660

Dovid Cronshow · Editor-in-Chief
Bill Morehead . . . . . Editor

Aoron Poss . . . . . Managing Editor
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Bob Busby . . . . . Photo Editor
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Jim Couch . . . . . Photographer
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Holiday Agony

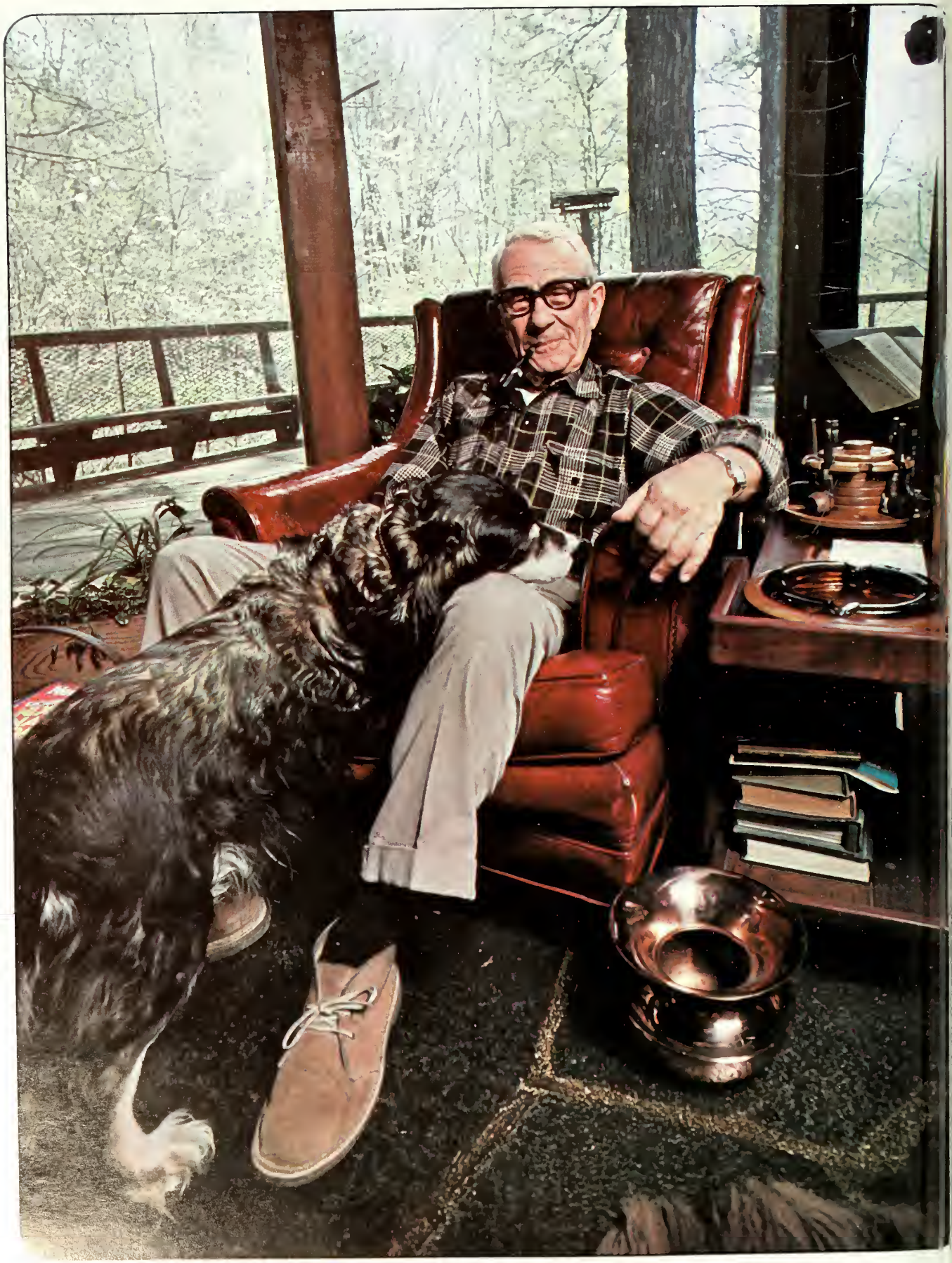
In our *Outdoors in Touch* section this month, there is a grim item about deaths and accidents on this past Bicentennial Fourth of July long weekend.

We'd like to call your attention to the listing of deaths and injuries and accidents on the road during the Fourth weekend. Perhaps a case could be made that highway accidents should not be reported in a magazine devoted to the outdoors and outdoor recreation. But we disagree. To enjoy activity in the outdoors, usually you have to drive somewhere. We feel that an accident occurring on the outdoors trip belongs in the outdoors activity category. Note where the highway accidents happened this past Fourth. Not a one took place on the interstates. They occurred on two-lane state and secondary roads, save two in city streets. While sportsmen and sportswomen travel the interstates of course, they usually have to traverse state and secondary roads to reach their favorite spots for outdoors recreation. We are sure the deduction is valid that some of the statistics recorded for the past Fourth included persons headed to or from outdoors enjoyment.

Another long weekend is coming up—Labor Day. Traditionally that's the time for one last big summertime fun fling. We'd like to ask a favor of you. Bring yourself and yours back alive and uninjured from wherever you go for Labor Day recreation.

Make sure you're familiar with all the guidelines for safety whether you're headed for the water or the field. Drive defensively as you travel to and from your recreation destination. We ask your help in holding down the tragic totals of drownings, boating and other accidents in this Bicentennial year; maybe we can make a beginning in the last half of 1976 in establishing a pattern of safety in the outdoors.

David Crawhall



Walker County's Ed Dodd and the World's Mark Trail

Bill Hammack

tography by Bob Busby

d Dodd, creator of the internationally-enjoyed ic strip, "Mark Trail," leads two lives.

irst he is Ed Dodd—a down-to-earth, outgoing, oughly likable man, an outdoorsman, a conserva- ist, world-traveler, artist/writer, hunter, fisherman, -smoker, who lives in a place called "Lost Forest," se walking companion these days is a 16-year-old tish border collie/cocker spaniel named "Mose," a who suceeeded a 200-pound St. Bernard named dy."

e is also Mark Trail, the comic strip friend of mil- s of readers around the globe, an outdoorsman, ervationist, traveler, photographer/writer, hunter, rman, pipe-smoker, who lives in a place called st Forest" and whose huge St. Bernard is named dy."

d Dodd says "Mark is my alter ego. But he can do gs I can't do. He does things I'd like to do. And he's younger. Mark was 30 years old this past April 15."

Most people are surprised when they learn Ed Dodd 4, born in 1902 in LaFayette in Walker County, rgia. Most folks peg him maybe in his early 60s. close-cut hair is steel gray and his face is leathery all sorts of weather—the snows of Canada and broiling sun of Africa and nearly everywhere in ween. Erect and flat-bellied, he walks at a fast clip. eyes reflect the calm strength of a man who knows c he is and where he is and what he's doing, the eyes man you'd like to have side with you but whom l hate to cross.

Mark first appeared 30 years ago, seeming the same as he is now. Ed Dodd then was 44 years old. He idered himself a middle-aged failure. He had been ing hard all his life, scratching and scrabbling, but he had never made what he calls "the big time." He says "I had been hacking along with a cartoon feature called 'Back Home Again.' I'd sold it in 1930 and I kept hacking away at it a long time—14 years. It appeared in about 75 or 100 newspapers. I kept it sold and it brought me some bread and a little meat, but I wasn't making any money. I don't think I ever made more than $60 a week. I realized I wasn't getting anywhere. I beat my brain for ideas. I'd been an outdoorsman all my life, but I reckon the outdoors was so close to me I just couldn't see it as a subject for a comic strip. The realization dawned on me that I ought to draw and write what I know best. So I started working on an outdoors strip. I worked hard on it. I worked hard trying to sell it. After two years of writing and rewriting, drawing and redrawing, pounding the pavement trying to sell the strip, I was beginning to get discouraged. Then the New York syndicate bought it. The day it came out in the paper, I happened to be standing on a corner when a *New York Post* delivery truck came up 7th Avenue. It was a cold, misty, rainy day. A poster on the side of the truck—the whole side of the truck—was a great big blow up of Mark's head, and God Almighty, that was the biggest thrill I ever had in my life. I knew then, *I knew*, I was finally on the way. Tears just busted out and started streaming down my cheeks."

Lady Luck, who had been slamming Ed Dodd with brass knucks, slipped on her silken glove and began caressing him and his brain child Mark Trail. Mark Trail was an instant success—instant if you don't count the years of long days and longer nights that Ed Dodd sweated and stretched himself through as he doggedly pursued his dream. Some people who may have gained

Tom Hill works on the Sunday cartoon panel for Mark Trail.

a little wisdom as they trudge along down here say that to get on the good side of Lady Luck a person has to show her plenty of perseverance and a lot of hard work. "When Mark came out, men were returning from the war," Ed Dodd says, "and they were thinking about home and hunting and fishing and the outdoors. And the strip caught on."

Mark Trail, an outdoor life adventure strip with a lively story line and top-notch drawing, also speaks up for conservation, and later when wide public interest in conservation was aroused, it boosted the strip's already impressive popularity. Today it appears in 400 newspapers worldwide, the 30 overseas in five languages. Combined daily circulation of these papers is 20 million, and using the generally accepted yardstick of between two and three readers per copy, that makes around 50 million persons who can follow the adventures of Mark.

The adventures are produced by an all-Georgia team. Mark's daddy, Ed Dodd, writes the story. Tom Hill of Atlanta, who joined Dodd in 1946, and Jack Elrod from Gainesville, who came aboard two years later, handle the drawing, and Barbara Chen from Savannah does the lettering. Tom Hill also is editor and artist of the Sunday strip, which highlights interesting facts about wild creatures and the outdoors pictured in Hill's meticulous drawings. Ed Dodd says Hill is the best wildlife illustrator he has ever seen. The team stays seven weeks ahead on the strips, Dodd maintains a three-month lead with the story. They accomplish their work in a place that pleasures the spirit and charms the eye—a studio that looks out over a dancing creek and a singing waterfall, a big room full of light in stone and unpainted cypress house that rambles around a forested hillside. The house, Ed Dodd's home, was designed by the late Atlanta architect Herbert Millkey, disciple of Frank Lloyd Wright. Millkey spent a lot of time with Dodd, studying him, his personality, his life style, and created a hollow sculpture of cypress and stone, a friendly-looking, comfortable-looking house that expresses Ed Dodd the way a bust of him by renowned Georgia sculptor Julian Harris depicts him.

The house was four years in the future when Mark was born, but within a few months of the comic strip's appearance, Dodd left New York to come back home to Georgia. He started looking for somewhere to sink roots. He knew what he wanted. He had inspected more than a score of sites when one day a real estate agent took him out to some pretty wild woods on the west side of Sandy Springs. "As soon as I saw the waterfall and the creek," says Ed Dodd, "I knew I had found my home. When Herb Millkey completed plans for the house, not a bank in Atlanta would lend me a dime to build it. In 1950—that's when work started on it—the house was considered too advanced, too far out."

But Dodd was able to swing the construction, and money from Mark Trail was coming in; the feature syndicate sold the comic strip to 46 papers the first week it hit the market and the number kept growing. First newspaper to buy was *The Atlanta Journal.*

Mark Trail ranges far and wide in his comic strip adventures, but sometimes Dodd brings hometown friends into the strip. One of them is Jack Crockford, Director of the Game and Fish Division of Georgia's Department of Natural Resources. Years earlier, Crockford had told Dodd a sad little story about a youngster who had tried to make a household pet of a wild creature—a fawn—with the usual unhappy results. Dodd soaks up stories like this all over the world for possible future use and when one of them fits into his long running narrative, perhaps to stress the importance of conservation or to illustrate humane treatment of creatures of the wild, he smoothly makes it a part of his comic strip. When he used the story of the fawn, he felt it natural to introduce his friend who had told it to him; so in that episode, Jack Crockford made an appearance. Tom Hill, who drew Crockford in the strip, has brought other friends into it—Jack Elrod whose drawing table is just behind Hill's, Barbara Chen. "Drew myself in once," Hill says. "Drew myself in as a trumpet player. Don't know why. I can't play the trumpet." Has he ever drawn Ed Dodd into the strip? Hill grins. "Many times."

When a character who may wear Dodd's seamed leathery face appears, he has been created along with all the other people of the strip by Ed Dodd, and the words in the balloon above the character's head, it

the other balloons, are words that Dodd has written. "I write the sequenee in considerable detail," Dodd s. "I deseribe the seenes, the eostumes, flora and na, all the details. And I write the dialogue, trying keep it cut to the bone and still say what I want to . Editing copy in a eomie strip is just ferocious these 's beeause they're reduein the size of the strips in iting them. So you have to make one word do the k of three, sinee you have to inerease the size of lettering if you want it reprodueed big enough to readable. That means we have to decrease the size the drawings."

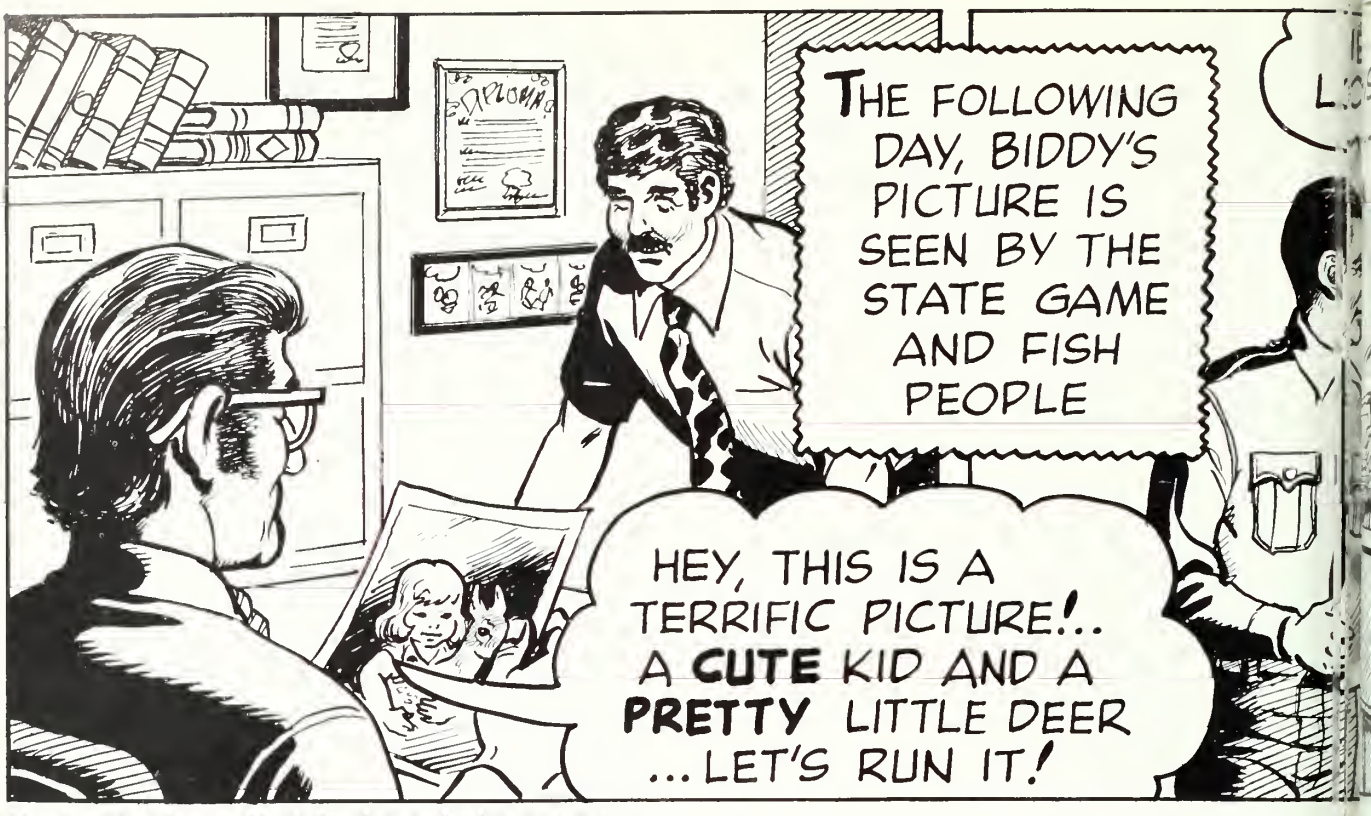
The drawings in Mark Trail are authentie down to fine details beeause of Ed Dodd's singular memory his library, in that order of importanee. "I have a of a time remembering names, but I ean remember a north woods lumberjaek is dressed right down is shoestrings," he says. "I've been lueky enough amble around all over the United States and Canada other parts of the world, and somehow I ean retain memory of how all these plaees look. And then I a lot of photographs in ease I ever need them to sh an old memory that may be growing dim."

Besides his pieture files, Dodd has built a library of ut 5,000 volumes, along with eopies of the *National graphie* from 1910 to the present. He files outdoors azines from everywhere—for example, there's a k of copies of *Outdoors in Georgia*. "I do some reeh to double-eheek," he says. "I try to write stories seenes in plaees I have some familiarity with. No ter what sort of drawing appears, no matter what of the eountry the scene is set in, no matter whether subjeet is a canoe or a snowshoe, or a bow and ar- or a partieular gun, there's somebody somewhere knows exaetly what it looks like, and if the draws wrong, he says, 'This guy's a faker'."

Ed Dodd couldn't know how to be a faker even if had a list of instruetions. He's a straightforward who's knowledgeable in an astounding sweep of

Above: Ed Dodd's waterfall sings to the house in Lost Forest, nearly hidden by the trees.
Left: The living room.

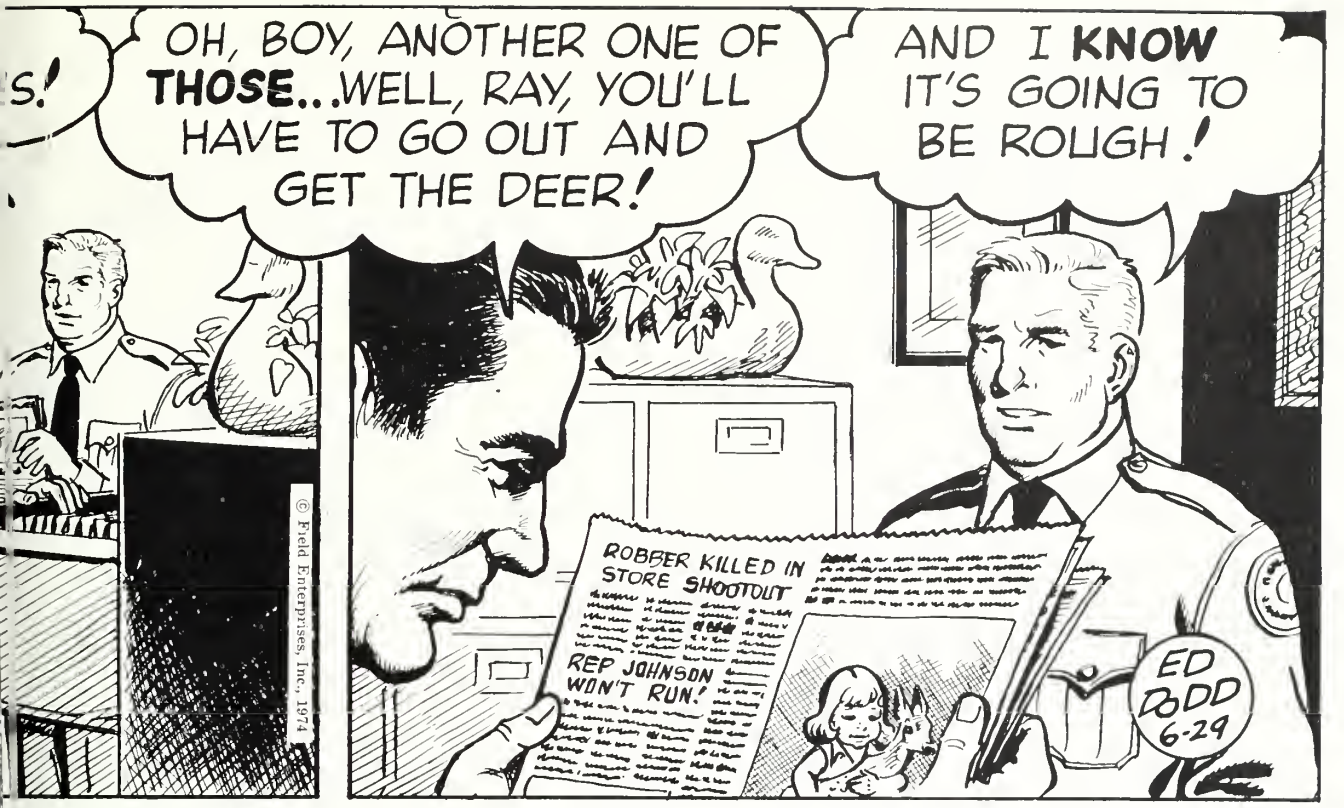
subjeets, and his convietions run deep and he expresses them elearly. Born and raised in a rural environment, his natural tendeney toward eonservation was reinforeed by one of the greatest Ameriean eonservationists, Dan Beard. "He wrote a lot of books for boys, and I ate them up," Dodd remembers. "My father used to subseribe to *Boys' Life* and *American Boy* for me, and Mr. Beard had an artiele in eaeh one every month. He deseribed this boys' wooderaft eamp he had on Big Tink Pond in the Poeono Mountains in Pennsylvania, 117 miles west of New York City. When I was 15, I wrote him that I wanted to eome up there but I didn't have any money, and would he give me any sort of a job to



Here's a strip from a Mark Trail episode that pictures Jack Crockford. In the drawing, he is "Joe," the official who tells "Ray" to get the deer.

pay my way. Took me two years to sell him on the idea. He finally let me come up. Said I could blow the bugle and wait on his table. So I got a bugle and learned to blow it. Waited on his table, and that was the best thing that could have happened, because I got to know him and his family just like my own. They eventually came to be just like my own family. I stayed there. Finally worked up to camp director. Beard was a wildlife artist, a great artist—illustrated some of the original Mark Twain books. He didn't get into the Boy Scout movement until he was around 65. He founded a group he named the Boy Pioneers. Ernest Thompson Seton, another great conservationist, got a bunch together he called the Woodcraft Indians. And in England, Lord Baden-Powell started an organization known as the Scouts. These groups, and some others, were pulled together by William D. Boyce and the Boy Scouts came into being. Dan Beard was the first scout commissioner and Seton was the first chief scout. I stayed with Dan Beard a long time. He influenced me more than anyone except my mother and father. He took me under his wing. I'd been trying to draw ever since I was a child. He gave me a lot of criticism, told me what to do. He was a distinguished old fellow, with that white mustache and goatee. We'd walk down Broadway and people would turn around and stare at him. He looked kind of like Buffalo Bill come to life. For years, I'd go [illegible] house like I'd go home. I'd call up and say I wanted to come spend the night. I had a room th[illegible] up in the attic. I last saw him when he was 91. He d[illegible] the next year. Last time I saw him, I knew he wa[illegible] going to keep going much longer, but he was still [illegible] of beans. He was the kind of man who paid attent[illegible] to young people. He didn't preach, but he made [illegible] points decisively. I had been smoking cigarettes and [illegible] day in camp, I leaned over and a cigarette fell out [illegible] my pocket and rolled in front of him. He didn't [illegible] anything. He just gave me a look. That was some lo[illegible] Just shriveled me up. Then he shook his head."

Ed Dodd smokes no cigarettes any more. He smo[illegible] Granger rough cut in a pipe. Conservation practices [illegible] learned from Dan Beard and those he absorbed w[illegible] his rural raising form the foundation of his strong c[illegible] servationist philosophy today. "We're presently fac[illegible] a dangerous situation," he says. "On one hand, th[illegible] are a lot of thoughtful, rational people who have b[illegible] deeply interested in conservation for many years, w[illegible] approach it from a scientific standpoint. On the o[illegible] hand, there are people who get emotional bec[illegible] they're hung up on the Bambi syndrome. Talk ab[illegible] conservation of deer to these people, and immedia[illegible] they see every deer as an adorable little Bambi. So t[illegible] fight like all get-out to prevent any deer from being s[illegible] In their tragic ignorance—tragic for the deer—t[illegible] don't know or they refuse to face the knowledge th[illegible] they're trying to condemn their adorable little Ba[illegible] to the cruel suffering of a slow death by starvation. T[illegible] conservationists have been aware a long time that [illegible] deer herd will literally eat itself out of house and ho[illegible]



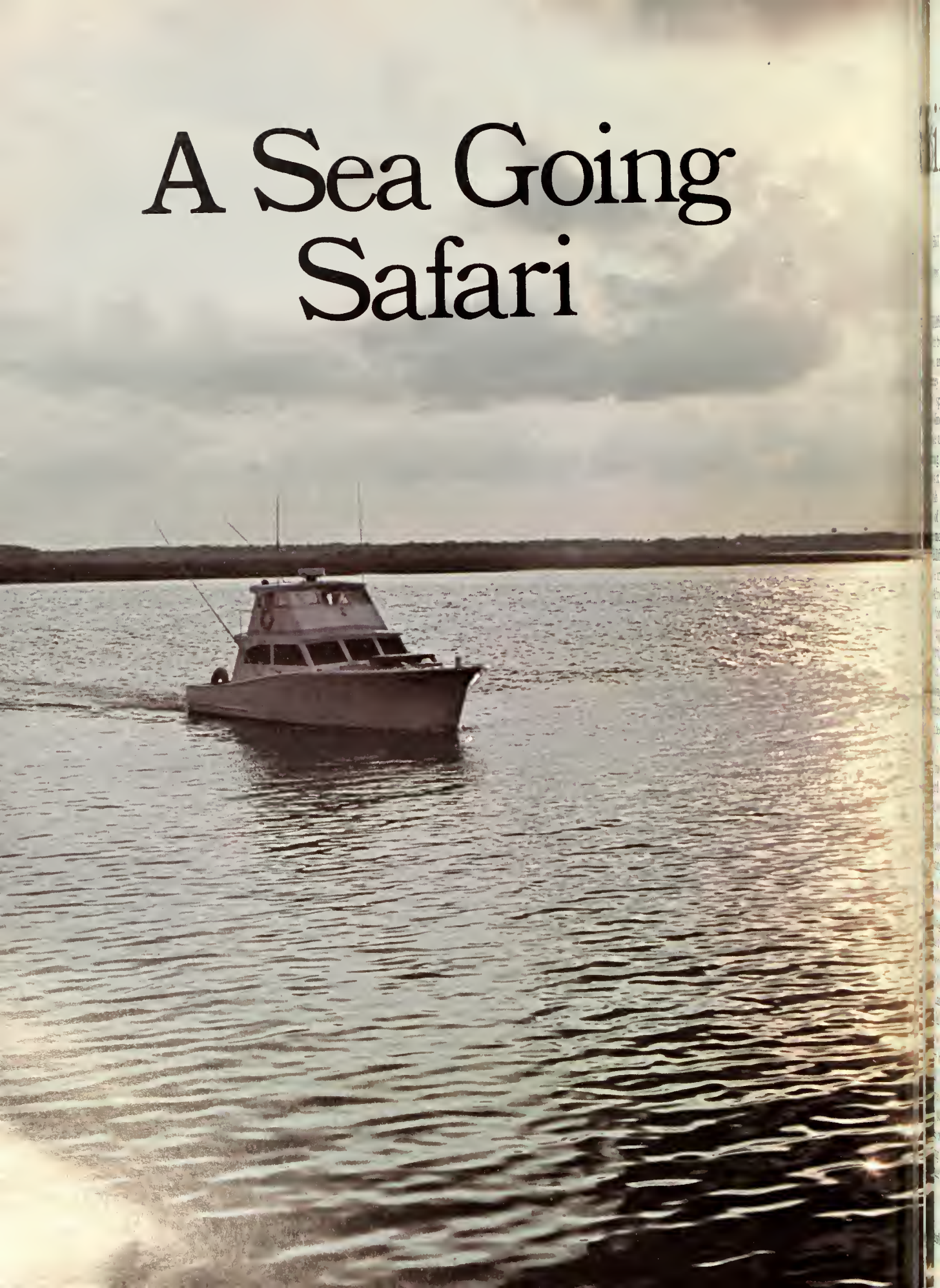
eal conservationists are the hunters—deer hunters duck hunters and bird hunters—and fishermen. y have contributed more to conservation than any group on earth. The anti-hunters don't contribute ing but talk. They don't buy hunting licenses, lon't buy equipment, they don't go to camps. What lo is put out propaganda like that "Guns of Au- ' TV program that's slanted and one-sided and 't give the true picture. It's the money from hunt- ıd other true conservationists that pays the bills lightened conservation and propagation practices." dd warns that "While the anti-conservationists are st in their irrational attacks on hunting, they're ttacking fishing. What we've got to do is fight propaganda, their lies, with the only defense that vercome them—the truth. We've got to keep ham- g home the truth about conservation. Sportsmen portswomen are not only conserving game, but e bringing game back. For example, because of 's and other conservationists, there are more deer nsylvania today than there were when old William nade a treaty with the Indians when he set up his '. If a person doesn't want to hunt—for whatever —it's his or her privilege *not* to hunt. At the ime, who gave the anti-conservationists the right ll me that I'm doing something wrong when it's not eal and not immoral? And what is, in my belief, the game? Hunting is a deep-seated urge. It's ie, goes back to the dawn of mankind on this I'm absolutely against shooting or harming any gered species, but where game is plentiful, I think hunting is the greatest sport in the world. It's absurd to talk about the horror of killing and inhumane treatment of wild animals when the only alternative is forcing them to starve to death, which is far more horrible."

Like most hunters, save those who hunt for meat—and there are still those who have to do that—Dodd finds rewards in going hunting that transcend bagging a bird or a deer. "We get outdoors, next to nature, where we belong," he says. "We live artificial lives in these canyons of steel and concrete we've fabricated. We're naturally a woods-roaming people."

Dodd roams the woods these days in his Lost Forest with his old dog Mose. "Mose," he'll say, "you're a beauty." Mose has been on TV coast to coast, he's appeared in half a dozen documentaries and he has had his picture in papers all over the United States. At the patriarchal canine age of 16, Mose is a beautiful dog and he's still eager to join Dodd in walks. Dodd may have inherited his fondness for walking. His father, a Baptist minister who died in 1972 at the age of 97, liked to walk. The elder Dodd's influence may also be reflected in his son's religious attitude. Ed Dodd says "I think man is moral or immoral depending on how successfully he moves toward God."

Ed Dodd may have the best of two worlds here below. In one of them, as Ed Dodd, he is not only a successful writer/artist doing what he loves doing, but he is also a successful humane human being with friends all over the globe. In his second world, which is also real to him, his alter ego, Mark Trail, can do anything Ed Dodd's imagination wants him to do.

A Sea Going Safari



Billfish off Georgia's coast

by Bill Morehead

Photos by the Author

Billfishing for marlin, sailfish and other big game fish is expensive. The time and money (wheelbarrows of money) that are invested in a 50-foot sportfisherman, the barrels of gasoline or diesel fuel burned to make the 160 mile round trip to the fishing grounds off Georgia, and the days it takes to actually harvest such a fish clearly take big game fishing out of the hands of most of us average mortals.

Billfishing is the closest thing we have in Georgia to a big game safari in Africa. To go at it full time and in full force, a person will lay out dollars equivalent to a half-dozen African trips.

Yet, it is the most dramatic, most exciting, and in many ways the most rewarding of fishing expeditions. It is indeed a big game in terms of the money it takes away from your wallet. But out there are big fish out there and who ever said the top of the mountain was easy or cheap?

I thought about those things as I sat around the table at the Captains' meeting the night before the start of the Annual Billfish Tournament sponsored by the Savannah Sport Fishing Club. I learned that some 22 boats from South Carolina and Georgia would participate in the tournament this year.

"Landlubbers often call this 'deep sea' fishing," said one captain. "It's true we fish some 60-70 miles offshore but it's not 'deep sea' fishing at all," he continued. "If you get a chance to see a blue marlin stalk the bait, swipe at it, take it and jump three or four times, you'll see our fishing for what it really is—offshore surface fishing," he explained.

"Our tournament is one of the more successful tournaments around," said Bruce Ford, chairman of the tournament. "Billfishing is big business in Florida and the Carolinas, but here off Georgia the sport fishing pressure is comparatively lower." Ford went on to explain that the Savannah tournament has the highest billfish catch ratio of any tournament on the east coast.

"Billfishing is not the chancy thing you might think," chimed in one fellow. "It may look like we go offshore, drop the bait overboard and troll blindly hoping for a strike," he continued, "but it's not that way at all. To catch billfish you have to know where they are. They like to hang out around any unusual structure on the bottom, near a canyon, a reef, or anywhere bait fish may be." He further explained it wasn't even necessary to get to the Gulf Stream (some 80 miles off Georgia), for at times the billfish come in as close as 35-40 miles.

Nestled in the dusk outside of the clubhouse where we talked were some of the big boats—the setting sun bounced faint rays off glistening hulls and metallic antennae. I had strolled onto the docks earlier and viewed the sportfishermen ranging

in size from a sleek, trim 26-footer to a mammoth 65-footer.

"We'll fish tomorrow if the weather doesn't make us come baek in, and the way these people fish, the weather will have to be really foul to drive us baek," said Bill Hopkins, president of the Sport Fishing Club. The early morning weather would be closely watehed.

The weather report that morning ealled for 20-knot winds and rain, but by the time we arrived at the fishing grounds, the sky was elear and the elements perfect for big game fishing.

I was on the *George T. Bagby,* a researeh vessel of the Department of Natural Resourees, which monitored the tournament for data on offshore ...ges. My being on the *Bagby* was ideal, for it would be able to draw close to any boat that had a fish on. Had I been on a tournament boat the emphasis would have been on fishing —not on pieture taking.

Larry Smith, a biologist who heads the saltwater sports fishing program for DNR, told me, "The fishermen are not only looking for unusual underwater struetures, they'll also be looking for weed lines (open-ocean *Sargassum*), a likely feeding site for the big fish."

While the weather was perfeet, the fishing was off. The boats fished hard, too. Shortly after we got to the fishing grounds, we eould see one or two boats already trolling—the radio told us that all the others were also. The tournament rules permitted fishing from 9 am to 3 pm and none of the boats were wasting time doing a... thing but fishing.

About three hours later, we he... on the radio that the *Waterway*... 45-foot custom sportfisherman ... tained by Ralph Viek of Savan... had a fish on. Mike Younce, eap... of the *Bagby,* got the approxim... location of the *Waterway* and brou... us over to it.

I was hoping to get pietures of ... fish jumping. By the time we arri... however, the fish had already b... through its jumps—but we did ge... see it boated. The angler, Herr... Kleinsteuber of Savannah, had ... tled a 246½ pound blue marlin ... 40 minutes before bringing him ... gaff.

This was the only fish brough... on the first day (and, as it tur... out, the tournament winner). At ... doek that evening, I talked ... Kleinsteuber about his eatch. "... know, I could've sworn that 40-m... ute battle lasted two hours. Lan... him was a team effort, believe ... People always say that one fel... eaught a big fish, but I ean tell ... that this one was a team effort."

Later, I interviewed several ... tains as to the bait they used and t... fishing techniques. They used ev... thing from Spanish maekerel to s... dolphin for bait. Some skipped t... baits along the waves and ot... swam the baits in the water. S... trolled fast, others slow, and s... even tried jigging with the boat ... in the water. For all their efforts ... boats and their fishermen eaught ... blue marlin the first day.

The weather the next mor... looked rugged. I had another m... ing to go to, and so didn't make t... seeond day of the tournament. I ... lueky. Shortly after noon I drop... by the Fishing Club to hear w... caught-what on the radio. As I d... up to the doeks I saw perhaps 1 ... the 22 boats docked.

I went inside and learned ... The wind had really whipped up ... morning. A south wind, it had a ... mile feteh to build up waves. I in... viewed several eaptains who ... turned back.

First eaptain: "We fished abou... hour. I was knocked off the chai...

Hoisting the winner. This 246½ pounder, battle scarred and tattered, took first place in the two-day tournament.

Herman Kleinsteuber of Savannah, fishing on the Waterway, said the 40 minute battle felt like it lasted two hours.

bridge four times during that
. We had a ten-foot pitching sea
here. We took it long enough."
cond captain: "We had to head
into the waves after we got out
r . We went through one wave
h about three feet of water on the
deck. We came out on the other
nd pancaked about 20 feet into
ough. That was enough. We got
f there and made it to Sapelo
t 50 miles to the south)."
ird captain: "We got broad-
several times out there. Man, it
ough. One broadside blew out
indows and another one ripped
perstructure. I'm glad we made
k."
eral boats did manage to fish, though. It was lucky one did, for the *Roulette,* out of Beaufort, South Carolina, captained by Tommy Citoris, brought in a 35 pound white marlin, the first ever recorded from Georgia waters. Joe Fraser of Hilton Head, S. C., caught the fish. Larry Smith, the DNR biologist, said: "The record will have to be confirmed, but as far as I know, this is the first white marlin caught off Georgia."

Another couple of fishermen were lucky that day, too. Ray Williams of Savannah, and Tom Hollingsworth of Savannah, landed 241¾ pound and 235 pound blue marlin, respectively.

These four fish were the total catch of the tournament—a disappointing, but totally understandable, total. The first day's weather was perfect—and one fish was caught. The second day's was horrible, and three fish, including the first Georgia white marlin, were brought in.

I guess all of this shows that, no matter if you're fishing in a 10-foot john boat or a 65-foot sportsfisherman, fishing depends as much or more on the fish as it does on the fisherman. That's the way it should be, even for the safari fishing of the big leagues.

Cherokee Rose and Brown Thrasher

Richard A. Parks

Thrasher Brown

Georgia's Songster

Leonard E. Foote
Photography by the Author
Art Work by Richard Parks

The Brown Thrasher, our State Bird, almost wasn't recognized officially. But a last-minute action by Governor Eugene Talmadge brought the state's official recognition to Georgia's sweetest singer.

In 1935, school children, bird lovers and thrasher devotees all over the state generated a groundswell of enthusiasm with so much political clout that the House of Representatives unanimously passed a motion "to declare the brown thrasher the state bird and the pine tree the state tree . . . " Four days later the State Senate passed its own resolution confirming the thrasher, but omitting the pine tree. The legislature adjourned, still polarized between the pine tree and the live oak, without agreement between House and Senate, so no act was passed. But Governor Talmadge, with his usual decisiveness, issued a proclamation on April 6, 1935 to honor the pine and the thrasher—a proclamation not recorded in the Executive Minutes on file in the Georgia Department of Archives and History. But the Governor's action made front page headlines in the April 6 *Atlanta Journal:*

> "Brown thrashers were strutting more than usual and pine trees were waving more majestically in Georgia Saturday. They had just received honors from the chief executive of the state.
>
> " 'The school children of Georgia, the Garden Clubs and other statewide organizations have indicated by their votes that they favor the brown thrasher for the state bird and the pine tree for the state tree,' the proclamation said.
>
> " 'Therefore, I, Eugene Talmadge, Governor of Georgia, do hereby proclaim that the brown thrasher shall be adopted and declared the state bird and the pine tree shall be adopted and declared the state tree.' "

Although the next General Assembly disagreed with the Governor and on February 25, 1937 declared the live oak to be Georgia's official tree, the thrasher's designation was greeted with favor.

In more recent times there have been other efforts to dethrone the brown thrasher but his champions always

have prevailed, even over such fine candidates as the bobwhite quail. (For the story of the bobwhite, see *Prince of Game Birds: the bobwhite quail,* by Charles Elliott, ©1974, published by the Georgia Department of Natural Resources.) It is the thrasher's presence everywhere in Georgia, perhaps more than any other characteristic of the bird, that insures its popularity. It courts, nests, sings and feeds in both live oaks and pines, up and down the state, in honeysuckles and privets from the thickets atop Brasstown Bald at 4,768 feet, to the base of Tybee light at the edge of Georgia's priceless seacoast marshes.

No Georgian need go far, on an early spring morning, to hear a thrasher. Its voice rockets from every wood, swamp edge, pasture hedgerow and suburban garden proclaiming its territory, announcing to all birddom that this is its chosen piece of Georgia.

Thrashers have been Georgians longer than people. The bird's ancestors were here long before our Old World ancestors and maybe before the first people drifted this way. He met the earliest explorers and the paths of the bird's discoverer and the state's founder crossed in history.

Linnaeus named the brown thrasher *Toxostoma* [illegible] ("bow-mouthed" from the slightly curved bill [illegible]dish") from specimens collected and sketches made in South Carolina or Georgia by Mark Cates[illegible] Catesby was the first great southeastern naturalist [illegible] traveled in Georgia before the area became a cr[illegible] colony in 1733.

Catesby took daily trips along the Savannah R[illegible] sketching and collecting birds, animals and plants. [illegible] returned to London in 1726 and in 1731 published [illegible] "Natural History of Carolina, Florida and the Bah[illegible] Islands," describing the flora and fauna of this par[illegible] the New World, including the "Fox-Colored Thru[illegible]"

From Catesby's volumes, Linnaeus named and [illegible]scribed 109 species of birds, animals and pla[illegible] Catesby's "Fox-Colored Thrush" became Linnae[illegible]s and Georgia's brown thrasher. The monumental wor[illegible] Mark Catesby brought him recognition from the au[illegible] Royal Society of London, where later, in 1749, he s[illegible]sored the membership of General James Oglethor[illegible], founder of the colony of Georgia.

Some say the singing of the fox-colored thrash[illegible]s sweeter than that of its close relative, the mocking[illegible] Arthur T. Wayne, South Carolina's eccentric but [illegible]life ornithologist, noted in 1910 that "to my ear[illegible]e song is sweeter, richer and wilder than the moc[illegible]-bird, and as a musician he is simply incomparable." In fact, many of the songs attributed to the mocker [illegible]e from a thrasher throat.

The state bird, for all its fame, is called and miscalled number of names. Throughout the South, country peo- to this day call it the "planting bird" and say its call mo ishes the farmer to "drop it, drop it, drop it, cover cover it, cover it; I'll pull it up, I'll pull it up, I'll pull up."

The brown thrasher is more plentiful here in winter cause the two or three broods reared in summer and l and the influx of thrashers from the northern part of breeding range swell its numbers. Georgia's winter- thrashers breed as far north as southern Manitoba d northern Maine.

Male thrashers may whistle into full song during late bruary snows, while setting up their well-defended ritories.

Within these territories the male resents the presence other male thrashers and will do aerial combat to turn ay intruders. When a human interloper chances into asher territory, both members of the thrasher pair l voice resentment with a sharp "tchat" like the click hedge shears. Humans venturing too near the nest y find themselves fending off feathered air attacks.

The courtship of thrashers happens mostly on the und under cover of early spring foliage. Working ether, the pair will complete a stick-based, rootlet- d nest in from six to ten days. The three to five enish-white eggs, thickly covered with fine reddish s, may be laid as early as April 5 in the Atlanta area, early May marks the peak of nesting activity.

The male thrasher takes his turn, sitting for long hours the eggs during the 11 to 14 days of incubation, ched stolidly on the nest through rain, sleet or sun. er the hatching he assists with the brooding, feeding, and protection of the young. When either parent roaches the nest with a morsel of food for the young, soothe their offspring with a variety of pleasant ical tones inaudible only a short distance away. The dly growing biddies spend about 12 days in the nest are fed by both parents for several weeks after the venture from their home.

Most thrasher pairs nest again around late July in the nta area, but usually with fewer eggs than before. y nests often are ancestral castles, used from year to and added onto until a great mound of sticks and g becomes a massive foundation for the current nt. These nests are often in cover remaining from previous season's growth. The thrasher prefers erows and the edge of the woods near vegetative ings. While many other birds exhibit this "edge" erence, it is a pronounced trait of the Georgia state bd

With the end of the breeding season in early August, hers retire to thicker cover to moult. Their once eless singing ceases. A stillness settles over Georgia's ds and fields. The only thrasher noises are the muted ds of the birds scratching through the forest floor as y search for spiders, insects, seeds and fruits, remind- Georgians that their state bird is still close to them it has been throughout history.

The Real Se

By Jingle Davi

Don't be so wary of marine monsters that you fall victim to the more common seaside hazards...

erpents...

A good friend from Atlanta spent his vacation last year at the beach, or rather, he spent the first part of his vacation at the beach. The majority of his two-week holiday was spent in a local hospital, in a fair amount of pain.

When he first arrived on the coast, he told everyone, "I plan to enjoy the beach, but I'm staying out of the ocean. All those sharks and things."

No amount of talking could convince him that sharks and things posed little real threat to him or anyone else. A few days soaking up sun on his beach towel put him in the hospital with third-degree burns.

This illustrates a sad phenomenon that occurs each summer on Georgia beaches and probably on beaches all over the world. People are scared of the wrong sea serpents. The publicity given sharks and other sea creatures not only makes people fearful of the ocean, but it also distracts their attention from some of the real, but easily avoidable, dangers of the beach and coastal waters.

Sharks head many vacationers' lists of things that go bump in the night or under the waves. Yet statistics prove that, each year, considerably more people are struck by lightning than are attacked by sharks.

There are common-sense precautions to remember when you're swimming in the ocean. Don't swim if you're bleeding or if there's blood in the water. Avoid areas between coastal islands and the mouths of inlets; these are places where sharks congregate. Don't swim at night, and don't swim too far out from the beach. (Your big danger there is drowning, rather than shark attack.) If you float on an air mattress, don't flip your hands or feet over the side—to a shark, those movements could resemble motions made by a wounded fish, and sharks like easy prey. If you should see a fin cutting the water nearby, don't panic—it's probably a friendly porpoise. (Fol-

lowing last summer's shark mania, bathers on a Miami beach clubbed a baby whale to death, convinced the harmless mammal was a great white shark.) If you're sure a shark is in your neighborhood, keep your eye on him and walk or swim, using calm, even strokes, back to the beach.

Jellyfish are about as dangerous as bees or wasps, and if you happen to be allergic to the venom, they can give you a bad time. A cautious visitor will walk along the tide line for a few hundred yards before swimming to see how many washed up on the last tide. If you see more than one jellyfish per yard, postpone your swimming and beachcomb instead. Should a jellyfish sting you, quickly rub wet sand, meat tenderizer or household ammonia on the sting—it won't hurt for long.

Portuguese men-of-war are a different kettle of jellyfish. The man-of-war can deliver dangerous stings, but fortunately, swimmers on Georgia beaches almost never have to suffer. About the only time the man-of-war makes it this far inshore is after tropical storms or hurricanes sweep these creatures into our waters. Small children are sometimes enticed by the man-of-war's pretty balloon-shaped float. The float isn't dangerous, but the tentacles which stretch beneath it are. If you see something in the water or on the beach which resembles a small blue or lavender balloon, stay away. Again, the man-of-war is rare in Georgia waters; during a lifetime of ocean swimming and beachcombing, most Georgians only see a few, and most of these are dead on the beach.

Sting rays are other much-maligned sea serpents, and they can deliver a painful sting—yet most coastal experts would rather swim with a whole school of rays than step on one broken bottle. Like any other wild thing, the ray will defend itself if you attack, or if it thinks you're attacking. Given half a chance, the ray will swim away from you; after all, you're quite a bit bigger. If you walk in shallow water over mud flats dur- [illegible] er months, you might step [illegible] is a favorite feeding

spot for rays. But if you're walking the mud flats, where sharp-shelled oysters or mussels might hide beneath the mud, you'd be wise to wear tennis shoes anyway. If you shuffle your feet as you walk through tide pools (where rays might be trapped by the outgoing tide), you'll give a sting ray warning to get out of your way.

Oyster shells and barnacles can cause painful cuts. Both usually choose a firm foundation on which to attach their shells. Steer clear of pilings, jetties, seawalls, or any other stationary object in the water, and watch for floating logs which might be covered with sharp barnacles.

Sometimes dead catfish wash up on the beach, and a dead catfish on the beach causes much more of a problem than a live catfish in the water. While you won't be finned by a catfish in the water, you could step on one on the beach, and its sharp barbs can give you a nasty puncture.

The creatures in the ocean, while some can be unpleasant, are probably far less dangerous to coastal swimmers and beachcombers than the nature of the ocean itself. If you understand tides and currents, swim-

ming in the ocean can be a co[illegible] pletely enjoyable experience. But [illegible] often, the uninitiated assume [illegible] ocean is just a super-size lake [illegible] swimming pool, and they fail to g[illegible] it the respect it deserves.

Respect the ocean by learn[illegible] something about it. For exam[illegible] don't walk on offshore sandbars [illegible] less you pay close attention to [illegible] tide, which has a way of coming [illegible] and leaving bar-walkers stranded [illegible] you are trapped on a sandbar by [illegible] ing tide, call for help—and don't [illegible] derestimate the depth of the w[illegible] t between you and the beach. E[illegible] year people are trapped on the b[illegible] u

The stingray (far left) is common in shallow water areas and is armed with a barb (far left, below) that can inflict a nasty wound. Jelly fish (left) sometimes wash ashore and its tentacles can deliver a painful sting.

If you're swimming on an unfamiliar beach (if you haven't been there as recently as a week before, consider the beach "unfamiliar"—beach contours can change almost overnight) don't let your children swim until you've waded out at least as far as they'll be swimming. Strong currents can cause a shelf—locally known as a drop-off—to form near the beach, and a child can quickly go from knee-deep shallows to over-the-head water.

Pay attention to waves and currents—sometimes rip tides (strong currents perpendicular to the beach) run between offshore bars and have been known to carry strong swimmers out to deep waters. If you are caught in a rip tide, rule number one is don't try to swim against it. What you do is swim across the current, usually they're fairly narrow, and when you're out of the current, then swim back to the beach.

"Don't fight the current" is a good general rule for all ocean swimming. The unknowing sometimes try to swim in a straight line from the beach to a boat or sandbar, and may panic when it becomes apparent that they will miss their target by several hundred feet because of a strong incoming or outgoing tide.

Nobody should swim in the ocean

while most are rescued without
dent, tragedies do occur.
ome years ago, a group of chil-
n vacationing at a now-abandoned
mer camp on St. Simons Island
dered out to a sandbar just as
tide began to flood in. The chil-
n were apparently unaware of
ger until the bar was ankle-deep
vater, when the group belatedly
ded to head back for the beach.
he middle of the slough, where
current ran swift and deep, the
ldren panicked. People on the
ch rushed out to help, but for
n or eight of the youngsters, help
e too late.

alone, and non-swimmers should b watched carefully. Nor should pa ents depend on rafts or inflatab swim rings to keep children saf Every lifeguard in Georgia wou probably like to see these devic outlawed, for they encourage no swimmers to venture out too far. something happens to the raft swim ring, or if the user falls o a dangerous situation develops.

One lifeguard says parents oft depend on their children to call f help if they're in trouble. "But I' never heard a kid yell help," he sai "Usually when they get in troubl they're choking on a mouthful water. The big problem here wh somebody goes under, you have guess where he or she might be. T water off Georgia beaches is about clear as pea soup. I don't mean it is clean; it is, but you just don't ha the visibility you'd have in a swi ming pool or lake."

This same lifeguard tells a stran story about a family vacationing the beach. They spread their beac towels near his tower, and he ov heard the mother's careful warnin to her children before she turn them loose. "Now, watch out f crabs in the water; they'll pinch yo she told the little boy and girl. ' you see any fish jumping, come o of the water immediately." The li guard said the mother then look down the beach and spotted the s wall, constructed of loose gran boulders—many of which were c ered with razor sharp oyster sh and barnacles. The mother said, ' fact, why don't you just play on t seawall and stay out of the ocea

Anti-Sea-Serpent Potions:

Even if you come to the beach with a fairly good tan, remember that the effect of the sun's rays will be increased when they reflect off white sand and water. Be careful of sunburn on cloudy or overcast days, when ultra-violet rays are still coming down.

To keep track of daily tides, pick up a tide table at a coastal hardware store, drugstone, bait shop, boat marina, or one of DNR's two coastal offices.

If you don't feel confident in coastal waters, swim on a beach which has lifeguards (some don't). And don't be afraid to ask the lifeguard about currents or tides or drop-offs.

If you have small, non-swimming children, better c fine them to the shallows or to your motel pool. If children wear flotation devices, make sure the devic an approved flotation device, not an inflatable swim ri and make sure it's the kind that straps on securely.

If you decide to wander down the beach, be sure y beach gear is stashed well above the high tide line.

There are several good paperback books which iden plants and animals you're likely to encounter on G gia's beaches. Most local bookstores or newsstands c them.

The House of Vann

A Cherokee Memento

By Susan Wood

Sketch courtesy of the Georgia Department of Archives ond History.

"Here lies the body of James Vann
Who killed many a White man
At last by a rifle ball he fell
And the devil dragged his soul to hell."

—Inscription on James Vann's grave.

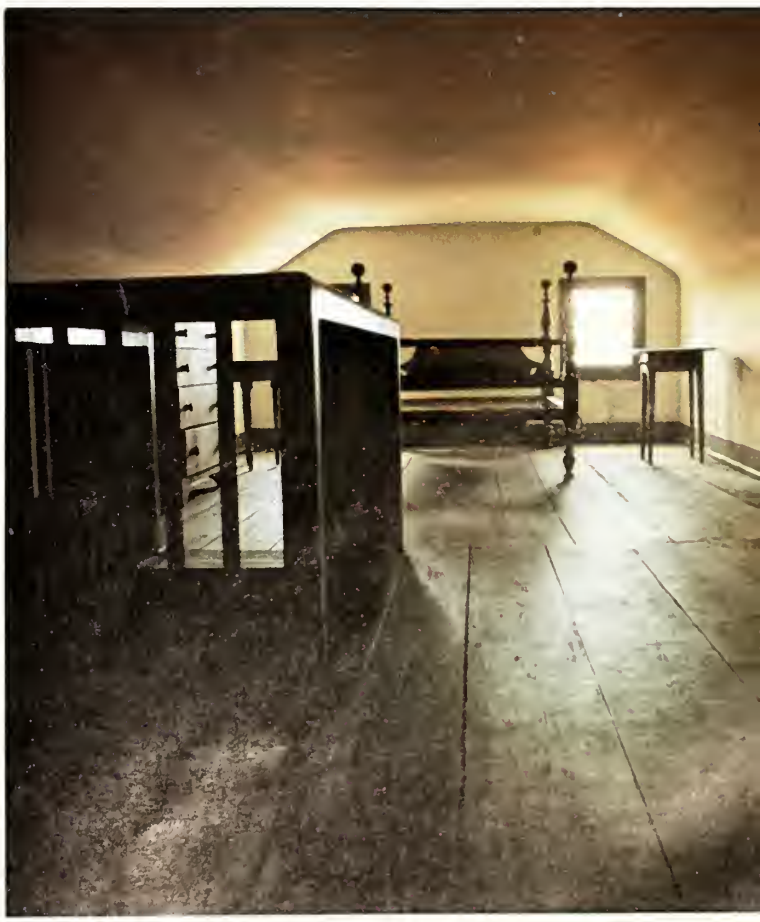
James Vann—a man whose role in Georgia's heritage has been somewhat obscure. A half Cherokee, loved and feared by his people, Vann was a town Chief in Cherokee land in northwest Georgia for about 15 years. But Vann was no wildly painted, raging Indian sporting bow and arrow and tomahawk. No, James Vann was a wealthy landowner and businessman whose only violence came after drinking too much "fire water."

Though James Vann was only a half-breed Cherokee, he was fully accepted by the Indians. His Scottish father, Clement, had married a Cherokee girl, Wa-wli, thus giving James his Cherokee heritage. Wa-wli was later baptized by the Moravian missionaries as Mary Christiana and is said to have lived to the age of 130.

Vann House, James Vann's legacy at Spring Place
ar Chatsworth, offers a glimpse of Cherokee heritage
d the spirit of James Vann. Completed in 1804, the
o-story brick home overlooked his 4000-acre
ıntation. The bricks were made right on Vann's
operty, probably by some of his 500 slaves. The kilns
ed to make the bricks have purportedly been found
ar the spring, about 400 yards from the house.
Perched high on a hill, Vann House offers a splendid
w of the northwest Georgia hills. And the colorful
nery must have inspired James Vann who brought
colors of the hills right into his home. The red, blue,
en and yellow of northwest Georgia—reminders of
clay, blue sky, green forests and yellow of the
ened corn—match the wainscoting, moldings,
ntels and window facings inside Vann's home.
To build a house the entire Cherokee nation would
l about, Vann brought an architect from Pennsylvania
l craftsmen from several neighboring states,
ording to diaries of Moravian missionaries. Some say
Moravians, whom Vann had invited to settle at
ing Place, also took part in the design and
struction. Intricate details—such as hand-carved
erokee roses—grace the house which consists of two
ge rooms (20 x 30 feet) and a wide hallway on each
he two main floors.
Originally a separate kitchen was built on the eastern
e of the house with a guest room on the northeast
ner of the kitchen. These additions, never rebuilt,
med a courtyard, paved with bricks.
The Vann House was a curiosity in the early 1800s—
y the second brick home in the entire Cherokee
on—and brought sightseers from all around. The
mansion and Vann's newly completed still were
ly the reasons an 1804 meeting between Indian
efs and agents of the U.S. Government was held at
n House. In 1819 James Monroe stopped at Vann
se for an overnight stay. Later John C. Calhoun
ed there.
ames Vann was killed in February 1809 at
fington's Tavern, south of Spring Place. James Hall,
ator of the Vann House historic site, tells that Vann's
ter had him killed in revenge for Vann's having killed
r husband some months earlier.
"James Vann, you see, had his good points and his
points like most folks. But one of his bad points was
he liked to drink, and not in moderation. And when
n was drinking, he became very belligerent, very
n. His meanness probably brought about the duel in
ch he killed his brother-in-law and which,
tually, led to Vann's own death."
Though James Vann intended to leave his entire
e including one of the earliest mills in the area to
oung son Joseph, the Cherokee Council of Chiefs
vened, dividing the property among Vann's three
ows and five children. But "Rich Joe" as he came to
alled, did inherit the house and much of the
erty.
Legend tells us that Rich Joe, an astute businessman

The colors of northwest Georgia—reflections of red clay, blue sky, green forests and yellow ripened corn—and intricate handcarved Cherokee roses can be seen in the living room of Vann House (above).

The third floor "coffin room"—so called for its shape not its purpose—was normally the Vann children's bedroom.



"Rich Joe," the most flamboyant Vann, was forced out of Georgia along with thousands of other Cherokees. In 1836 he settled in Webber Falls, Oklahoma where he operated a steamboat line on the Arkansas, Mississippi and Ohio Rivers.

Rich Joe's gold nugget ring depicts his pride and joy, the "Lucy Walker." His love for racing and his pride in the Lucy Walker brought an early death to this colorful character.

who operated steamboat lines, trading posts and several farms, hid some of his treasures in secret drawers under deeply recessed windows in Vann House. Those drawers, the old-timers say, could have also hidden the bodies of men who crossed James or Joseph Vann.

During the 1830s Joseph Vann was caught up in the push for removal of Indians from Georgia. One obvious way to remove the Indians was to take away their land. With nowhere to live, the Indians had to move on. Thus the lottery system of land grants was devised in 1830. Under this plan, white citizens of the state were entitled to one ticket each, with special benefits for widows and veterans. The tickets represented land lots which consisted of 160 acres in Indian territory. About this time, Vann hired a white man as overseer of his plantation, unknowingly violating a new Georgia law that made it illegal for a white man to work for an Indian, even a half-Indian. Because of this, the commander of the Georgia Guard tried to take over Vann's house, but a white boarder claimed the house as his own. With Joseph Vann and his family huddled inside, the claimants proceeded to battle it out. Georgia Guardsmen finally smoked out the defender by building a fire on the stairway. The charred flooring is still visible.

Vann along with thousands of other Cherokees was forced to desert his home and lands. Rich Joe and his friends made their way to a farm he owned in Tennessee but later moved on to Oklahoma. In Webber Falls, Joe built a replica of his Georgia home. But the Oklahoma Vann House with all its furnishings brought from Georgia was destroyed by Federal forces during the War Between the States.

Rich Joe was a flamboyant character who loved to race horses and steamboats. This passion was his downfall. Patricia Hall, hostess at Vann House who has done research on the Vann family and the Cherokees tells that in October 1844, Rich Joe was hosting a party on the *Lucy Walker,* a steamboat named after his prized racehorse, when a passer-by challenged him to a race. "Never one to turn down a challenge, Joe ordered full steam, and the race was on down the Ohio River near Louisville, Kentucky. Joe ordered his steamboat pilot to throw bacon onto the fire to give them more steam. Horrified, the pilot refused, explaining the danger, but Rich Joe drew his pistol, demanding that his request be honored. The nameless pilot, fearing for his life no matter what he did, threw the bacon into the fire and jumped overboard, knowing what the result would be. The boiler exploded, killing Vann, his 50 guests and his prized horse Lucy Walker who was also on board."

Vann House was a shambles in 1952 when the community purchased it and three acres to give to the Georgia Historical Society. Once restored, Vann House was dedicated in July 1958 before a gathering which included Cherokee leaders and 42 Vann descendants

Andersonville

An Execution

By Howard Bushnell

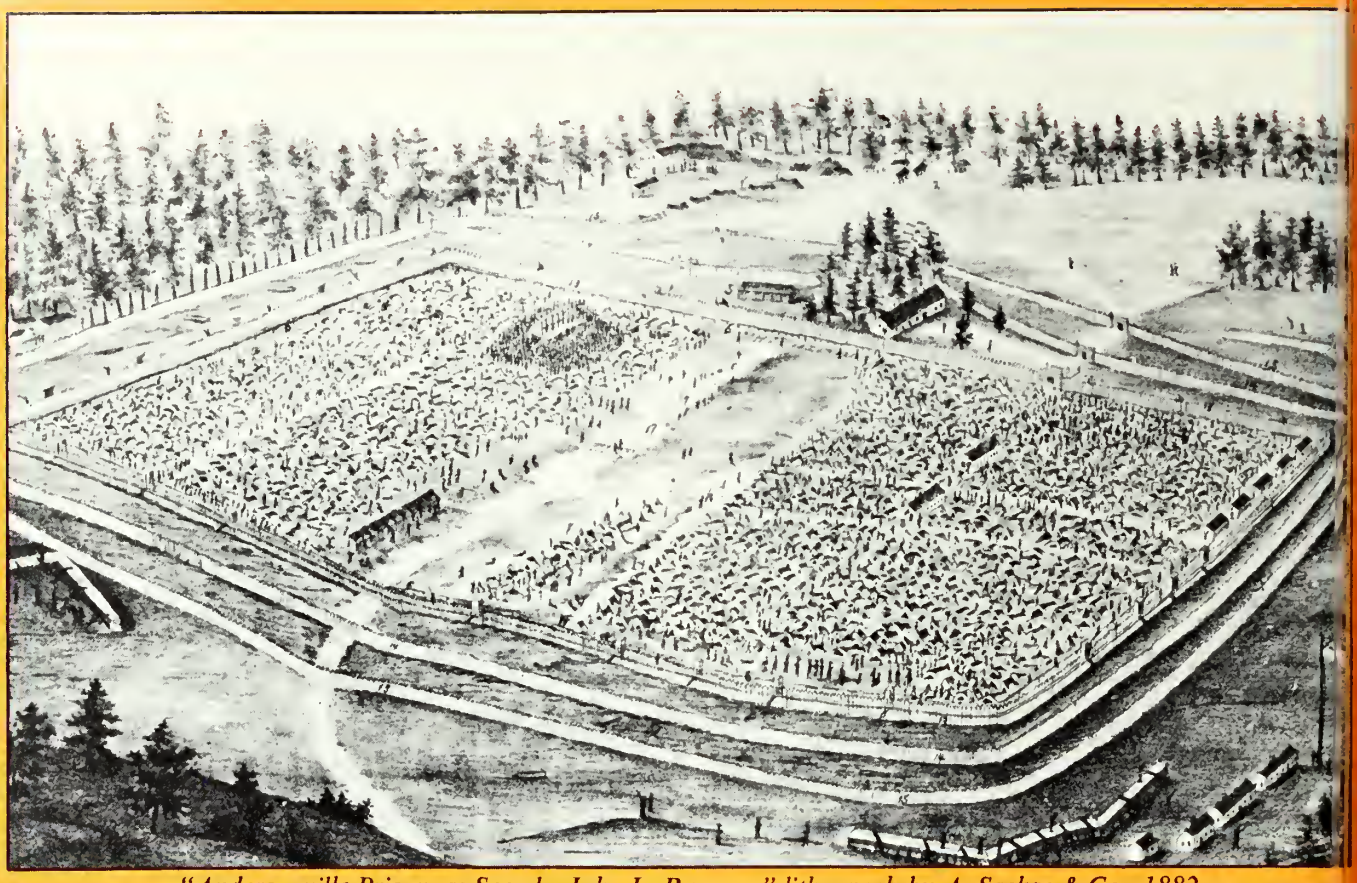
The hot sun of south Georgia beat down in blinding waves of heat on the bare heads of 30,000 ragged and bearded men.

The closely packed crowd seethed with nervous movement, the restless, shifting feet sending up clouds of acrid dust; dust which irritated eyes already inflamed with excitement, sickness and exposure.

At the center of this vast crowd of men stands a raised platform, a crude thing of rough lumber erected on the gently sloping side of a small hill. All of those thousands of bloodshot eyes are centered on it, and upon the strangely assorted group of six men who stand there. Another man, a priest in black robe, is speaking, making an effort to quiet the crowd. The hands of the six men are tied behind them and on each face is a look which gives a hint of each man's character. On some there is a look of pathetic disbelief that this thing can be happening to them. On other faces are looks of snarling anger. The priest raises his arm in a gesture beseeching attention and speaks.

"Men, it is within your power and mercy to grant life to these who stand here with me. I know full well what their crimes have been, I know that they have been cold-blooded and cruel; that cannot be denied. Perhaps each of you has suffered at their

Execution of the Raiders," by T. Taylor, 1896, from the Andersonville Military Prison Series.



"Andersonville Prison, as Seen by John L. Ransom," lithograph by A. Sachse & Co., 1882.

hands in one way or another. I can understand your wish to see them suffer also. But, remember the words of our Lord when He said, 'Bless them that curse you, do good to them that hate you, forgive them that despitefully use you.' I plead with you to forgive these men their sins as your Father forgives you yours."

The crowd is in no mood for this and shouts as one voice "No, no . . . hang them, hang them."

There is in that voice a finality which could not be misunderstood and the priest, knowing the futility of further words, begins to read the ritual for the souls of the dying.

All of this took place some one hundred years ago near a small town in the southern part of Georgia. Not long ago I stood on this same spot at a point where I know the platform to have been and looked around me. I tried to visualize the scene as it had looked to those 30,000 men who had been there and had seen the thing happen.

On that long-ago day the Civil War was raging and this place was the hated Andersonville Prison. The very name of that place was enough to send shivers of dread up the spine of any Union soldier. On the day about which we are talking it held 30,000 sick and ragged survivors of Chickamauga and others of the bloodiest and ugliest battles which the world had seen up to that time. They were huddled on the open ground, cooking their slim rations over small campfires and sleeping at night in holes dug into the ground with scraps of cloth for cover.

What I saw as I looked around was a pleasant, parklike National Historic Site. Where those thousands camped there are now neat signs admonishing the visitor that there will be No Picnicking. The gentle hills that were then bare and scarred are covered now with sweet, green grass. The little stream which flows through the center of the area, at that time a maggot-blocked trickle which furnished the camp with its only sanitary facilities, now gurgles cleanly on its way. Gone forever is the great enclosing wall made of pine logs, pointed at the upper end. These were set, side by side, all the way around the 16-acre area. The butts were set deep into the ground to discourage those who had the energy to try tunneling under. Their tops towered 20 feet into the air. Gone, too, is that dreaded thing of terror, the Dead Line, although its original location as well as that of the inside wall is now marked by a line of cement posts. The Dead Line was a line of wooden posts about three feet high set 20 feet inside the outer wall and paralleling it all the way around. The posts were joined together along the top by pieces of scantling. This established a point beyond which the prisoners might not go. To do so brought instant death from the guns of guards posted at intervals along the top of the outer wall.

This place which then held its confines so much misery has been turned into a place of quiet beauty, but the breeze which sighs softly through the pines reminds one of the moans of a long dead company.

Up the road about one quarter of ile north of the prison site is the dersonville National Military met ry. Here, as I wandered slow- abo t, I came upon six white dstones. There was nothing to inguish them from the thousands others which are so neatly ar- ged in ordered rows—except that y were set apart in a small open ce, apart from all others. I sup- ed at first that these six were set rt because of some deed of un- al bravery which those buried e had done, or perhaps they were h-ranking officers. Nothing could urther from the truth.

Thirty thousand men living to- ier under conditions such as have n described at Andersonville for- t some of the finer points of civil- society. Their actions and be- ior became more and more brut- and elemental. The fight of each for his own survival became the law of life. So, here in this prison re bodily comforts were few, re the food was low in quantity bad in quality, where blankets e a luxury, there was naturally a t deal of thieving and cheating me sought to gain a little added fort.

A group of perhaps 500 prisoners, t of them from the New York s, banded together under the e of the Raiders and preyed the other prisoners, stealing them what little they had, beat- and sometimes killing those who ted. At first they operated only r the cover of darkness but at grew so lawless and uncontrolled they began conducting their raids oad daylight. They became such blem that finally the other pris- s were forced to take measures heir own protection. As always ens in a crisis a leader was r l. One strong character rallied nd himself an opposing force o called themselves the Regula- s. The Raiders had their head- ers on the south side of the stream which has been men- d and the Regulators had theirs e north side. The first clash be- the two forces resulted in de- feat for the Regulators who were driven back to their side of the stream in great disorder. The Raiders became even more bold for a time afterwards. Finally the Regulators decided that the time had come for an all-out effort. They recruited additional men for their ranks and crossed the creek again. Both sides were armed with clubs made of boards, tree branches and with any crude weapon which was capable of causing some damage to those on the other side. All of the other prisoners massed on opposite sides of the stream to watch the tide of battle. The fight was long and hard, as cruel and wild as is only possible between men who have nursed hate for a long time. First one side and then the other seemed to be winning. At last it was seen that the Regulators were pushing the Raiders back and with a final surge of power broke them into utter confusion and defeat.

About 125 ringleaders of the Raiders were captured with the aid of the Confederate guards. The prisoners, themselves, assembled a court and tried these men. It was a fair and honest trial. The jurors were 12 sergeants chosen from among some of the newly-arrived prisoners so that they would have no prejudice. Witnesses were produced who testified against the accused and then the lawyer for the accused was allowed to question them as much as he liked. A large number of the captives were found guilty and were sentenced to sitting in the stocks, being strung up by the thumbs, running the gauntlet, or wearing the ball and chain around their legs. Six of the worst offenders were sentenced to be hanged. The Raiders that were sentenced to the gauntlet faced the prisoners they had terrorized who had armed themselves with clubs and belts and lined up in a double line forming an avenue from the gate through which the prisoners must come. As each one came through he was forced to run for his life down through the avenue of men. Several were beaten so badly that they died.

The six who were to die treated it all as a great joke. Even when the scaffold was erected inside the prison from lumber supplied by the prison

"Graves of the Andersonville Raiders," from a stereopticon slide made in 1867.

commander they still thought it was all a bluff. Rumors began flying about the prison one night, one man whispering to another that the following morning was to be the time for the hanging. It was said that friends of the six were going to make an attempt to rescue them. The situation inside was tense, an air of nervousness hung like a blanket over the camp. The prison commander, sensing this and being afraid that it might lead to an uprising or a rush at the gates and walls, posted additional guards on the walls and had artillery loaded and trained so as to cover all areas of the prison.

The following morning the six doomed men were led in and conducted to the steps of the gallows. About the gallows were crowded 30,000 men, a solid sea of faces upturned. Around the outside of the walls another assemblage of 2000 more was gathered. They were the guards and inhabitants of the surrounding country who had been drawn by the rumors of what was to happen.

As the six were brought up to the scaffold it seemed that for the first time the seriousness of it hit them and one of them cried out "My God, men, you're not going to hang us up there, are you?" They were assured that this was actually the intention. The priest, Father Peter Whelan, began a plea to the other prisoners for the lives of these six, but the great crowd shouted as one voice—"No, no, hang them." The priest then began to read the service for the dying. One of the condemned men paid no attention to what was being read but continued shouting instructions to one of his friends as to what was to be done with his personal belongings. The priest reproved him, saying, "My son, take no thought now for the things of this world, but consider the things of eternity." As the end of the reading drew near another of the six shouted "I would rather die this way," and plunged headlong into the crowd trying desperately to break through. With almost superhuman strength he managed to struggle through for a short distance but was overcome by the weight of numbers, beaten down, and returned to the platform. All six were then lined up, side by side, on the platform of the scaffold, sacks were pulled down over their heads and knotted ropes were adjusted about their necks. As a signal was given the planks upon which they stood were jerked from beneath them and they dropped. Five of them died instantly but the weight of the sixth, who was an unusually heavy man, broke the rope and he landed unconscious upon the ground. Water was thrown in his face and he was revived. As he regained his senses he exclaimed "Am I dead, is this the next world?" Then, realizing what had happened he fell on his knees and pleaded pathetically for his life. This was refused; he was placed again upon the gallows, dropped, and this time he died.

I ıe bodies of the six were cut l n after what was thought a suit- e period and placed in rude o len coffins. These were then p d in a row and the rest of the s ners filed past to look their last p the remains of those who had s d them so much pain and trou- o or perhaps, as in the case of r ls of the dead men, to swear v ance upon those who had b ght them to that end.

, there they lie today under six w headstones in an open space, c tify that even in eternal death h can have no comradeship with h ousands of others who died to a b purpose.

Photos by Bob Busby

Postscript

The story of the Andersonville Raiders was done but a new chapter was about to begin. In that anguished August of 1864 while 2,993 of Andersonville's 32,899 were dying the South was trying to improve their prisons. A new and healthier prison site had been chosen near Millen, Georgia.

A 42-acre stockade named Camp Lawton was built in what is now Magnolia Springs State Park. The park headquarters stands yards from where the prison gate once stood. Brush-covered Fort Lawton overlooks the valley that held over 10,000 of Andersonville's survivors.

Some of the survivors were remnants of the infamous Andersonville Raiders, still embittered at their treatment. The Regulators had been disorganized by the move so the Raiders felt they could get control of Camp Lawton. One night the Raiders attacked Corporal "Wat" Payne who had helped trigger the hangman's traps and Sergeant Goody who put meal sacks and ropes over the executed Raiders.

With the yell "Raiders" the ex-Regulators came to Payne's and Goody's aid. Prison Commandant Captain D. W. Vowles acted quickly and soon the Raiders were lying on their stomachs in stocks near the prison gate. The quick action at Camp Lawton or Millen as the prisoners called it ended the Raider menace. No longer did the prisoners have to fight their fellow men. For the rest of their internment it was just a struggle with hunger, disease and exposure.

Billy Townsend

Outdoors in Touch

edited by Bill Hammack

DEATH DECLARED NO HOLIDAY ON THE BICENTENNIAL FOURTH

Two persons drowned in Georgia during the long Bicentennial Fourth of July weekend. The total number of drownings for this Bicentennial year now stands at 55.

During the Fourth weekend, there were nine boating accidents. The total for 1976 has reached 47 so far.

On the road in this long Fourth weekend, 19 individuals were killed and 408 were injured in 1,243 accidents. No deaths were reported on the interstates, but 10 died on two-lane state roads, seven on two-lane secondary roads and two on city streets.

Major William L. Cline, northern region commander of the Law Enforcement Section of the Department of Natural Resources' Game and Fish Division, said conservation rangers were patrolling in full force during the weekend of the Fourth, and that heavy rains may have been another factor in holding down accidents on the water.

GEORGIA KAOLIN AND GOLD KIST WIN ENVIRONMENTAL AWARDS

This year's top environmental awards by the Georgia Business & Industry Association went to the Georgia Kaolin Company of Dry Branch and Gold Kist, Inc., Ball Ground.

Joe D. Tanner, Commissioner of the Department of Natural Resources, and Gene Dyson, President of Georgia Business & Industry Association, presented the awards to Georgia Kaolin for its work in reducing air pollution and to Gold Kist for decreasing water pollution.

In 1970, Georgia Kaolin's Dry Branch plant, one of the biggest and most complex kaolin operations in the state, appeared to be one of the worst air polluters in the kaolin industry. But since that time, the company has spent considerable resources on the best available control technology and for a maintenance program on air pollution control devices. Today, it's estimated the plant emits about 40 percent of what's allowed by the state's air quality control rules and regulations.

Gold Kist's poultry rendering operation at Ball Ground produces 20 tons of feather meal and 15 tons of meat meal a day. Before 1973, wastewater and suspended solids from the plant were sources of considerable pollution in the Etowah River. Grease and oil pollutants and complaints about the odor compounded the problem. But beginning that year, Gold Kist instituted an effective program to reduce wastewater flows, increase the degree of wastewater treatment, modify the treatment system and initiate a wastewater reuse system. The result was a 30-fold drop from initial effluent flows, and the current flow is well within permit limitations.

"Georgia Kaolin and Gold Kist have shown an excellent spirit of cooperation with us," said Leonard Lebetter, director of the Environmental Protection Division of the Department of National Resources. "Their contributions toward cleaning up pollution in their area benefit the state and its citizens and the business community."

Previous environmental award winners in Georgia have been: in 1975, the Pomona Products Company for water and J. M. Huber Corporation for air, and in 1974, King Finishing Company for water and Engelhard Minerals for air.

NATIONAL HUNTING AND FISHING DAY WILL BE OBSERVED SEPTEMBER 25

For the fifth consecutive year this nation's sportsmen and sportswomen will be honored for their contributions to conservation through the observance of National Hunting and Fishing Day, scheduled for September 25.

NHF Day helps provide a better understanding of what hunting and fishing are all about—that there

more to hunting and fishing than guns, fishing rods
d reels, and that the people who hunt and fish are
e real protectors of our wildlife.
If you'd like information about how to support NHF
y activities in your community, write: NHF Day, 1075
st Road, Riverside, Connecticut 06878.

NTERS, ANGLERS INVEST $4.5 MILLION
WARD CONSERVATION IN GEORGIA

Georgia was fifth among 11 Southern states in the
mber of both hunting and fishing license holders for
75. According to U.S. Fish and Wildlife figures,
4,392 hunters paid about $2.4 million to the state
hunting licenses, tags, permits and stamps in 1975,
d 658,167 anglers invested more than $2.2 million
fishing licenses.

Leading the 11 Southern states in both categories was
as, with 853,250 hunting licenses and 1,639,552
ing licenses. National hunting license leader was
nsylvania, with 1,245,740, and top fishing license
te was California with 2,348,293.

Through purchase of Georgia hunting and fishing
nses alone, hunters and anglers invested around
r and a half million dollars in 1975 in the state's
servation and wildlife management programs.

Coming Next Month...

A Sapelo Experience: Managed deer hunts held on Sapelo Island last fall were designed to control the expanding deer herd there. Aside from this managerial goal was the recreational experience for the hunters, particularly the youngsters on the parent-child hunts. Jingle Davis records the experience of one of these young men.

Opening Day Doves: Whatever your sport, the first day you can pursue it each year is special—so special you will be there regardless of weather, conflicts or even chances of success. All of the restraints which govern normal lives on normal days are suspended on opening day. Bill Morehead reports an occurrence of this mystique.

Georgia's Endangered Species: Since 1973 the Department of Natural Resources has been deeply involved in research on those wildlife and plant species which are in trouble. September *OIG* devotes a section to these species and the efforts to aid them.

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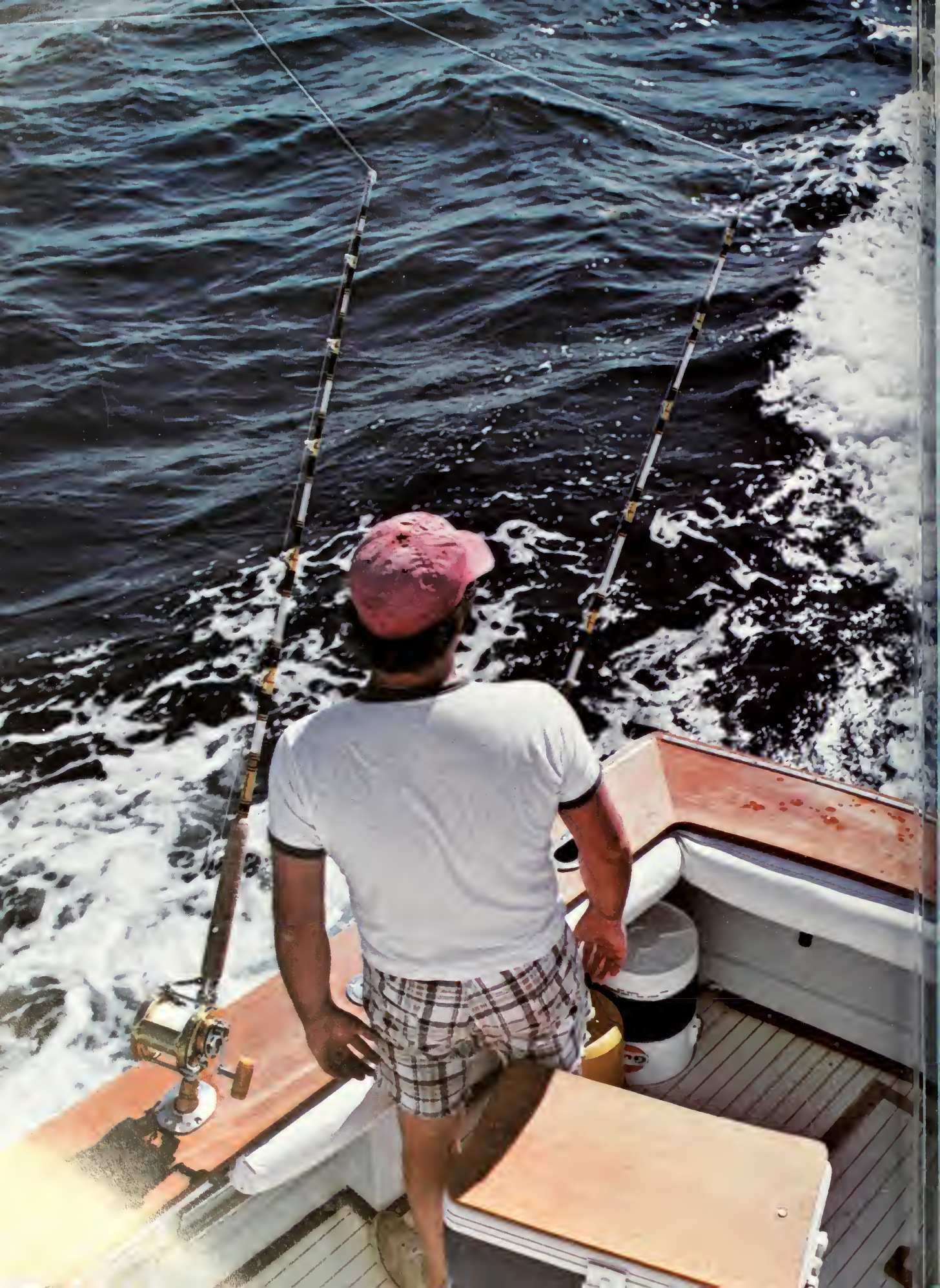
Southeastern Wildlife Art Exhibit

October 21-24, 1976
Perimeter Mall
Atlanta, Georgia

Original wildlife paintings, sketches, sculpture and photography exhibited in the mall.



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Back Cover: The Last Franklinia *(Franklinia altamaha)* no longer exists in the wild. Other plants will suffer the same fate withaut pratection and management programs. Phato by Cathy Cardarelli.

MAGAZINE STAFF
Phone—656-5660

David Cranshaw · Editar-in-Chief
Bill Marehead . . . . . Editor

Aaran Pass . . . . . Managing Editor
Rebecca N. Marshall . . . . . Writer
Dick Davis . . . . . Writer
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Liz Carmichael Janes . . . Art Director
Mike Nunn . . . . . Illustrator
Bab Busby . . . . . Phato Editor
Edward Brack . . . . . Photographer
Cathy Cardarelli . . . . Photographer
Jim Cauch . . . . . Photographer
Priscilla C. Pawell . Circulation Manager

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Editorial

Your Day

The last Saturday of September has had special significance to hunters and fishermen ever since September 23, 1973. National Hunting and Fishing Day was signed, sealed and delivered to the Nation's sportsmen to do with as they would.

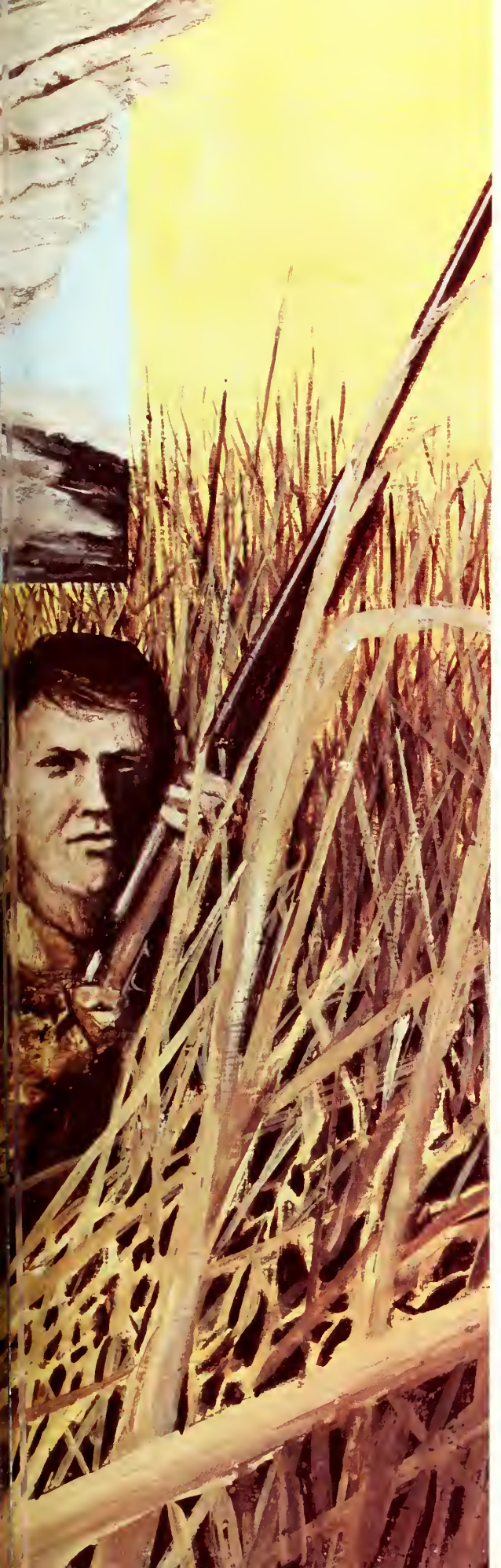
Many people and organizations had a hand in the planning and development of NHF Day. It was set aside, officially recognized and planned as a grassroots program. Spurred, perhaps, by a growing antipathy toward hunting, NHF Day was designed to showcase the sportsman's contributions to wildlife conservation and to the community. And, it was a method by which local sportsmen could speak to their communities in a way that editorials, articles, and national organizations can not—on a neighbor-to-neighbor basis.

Sportsmen have long lamented that they could not get their message to the general public. NHF Day was designed to do just that. It was, and is, a self-help plan for effective public relations with the non-sporting community.

Three years from its beginning, NHF Day is a success. Many groups have made it a significant event and have achieved effective communication with their communities. Others have apparently thought it too much trouble and have allowed their interest to flag.

National Hunting and Fishing Day is the sportsman's day to speak. It is not a government program; it is not conducted by the sporting equipment industry; it is not directed by the outdoor magazines—although all of these institutions have supported it. Responsibility has been left to the organized hunters and fishermen to tell their own story. If you, as a hunter or fisherman, are not planning to participate in NHF Day this year, you are not telling the sportsman's story.

David Crawshaw



Opening Day

By Bill Morehead
Art by Mike Nunn

It is almost time to go and I haven't even collected my gear—where is the camouflaged muslin jacket? Did I put it in the attic or in the storage room? Do I have enough shells? Why didn't I go buy shells at the big discount center when I had the chance? Why must I always zip down at the last minute to pick up a couple of boxes of high priced 12's?

Where is my son—what do you mean he's playing baseball? How can I get myself ready in time for the 12 noon shoot if he's playing baseball? Can I go without him? No, better not, not if I want to have a little peace and quiet at home.

I hope we'll see some doves. The guys at the sportsmen's club worked hard this summer and spring—planting millet and working it and all. I spent some time with them, but I could've spent a lot more. I hope we'll see doves.

It looks like rain. Should I take the thermos jugs or the small thermos bottle? I'll take the bottle (mistake). The club president last Tuesday reminded the members that no alcoholic beverages were allowed on the dove field. I remember some sad days in the past and hope the guys obey the rules—if I see boozing, my son and I will leave.

Where is my plastic "dove seat," the one with the swivel seat and the insulated storage compartment? I crawl in the attic and it's not there. I look around and finally find it under the window of my daughter's room—the seat filled with African violets and the compartment filled with a rock collection. Oh, well, I don't need it anyway (another mistake).

Should I take some sandwiches along? No, we'll only be out there a couple of hours—we won't need them (gross mistake). Will the doves fly today? What if they sit in the pines until shooting time is over? What if they moved south last night during the thunderstorm?

Finally the baseball player is home from the wars. My gun and his are on the back seat. I round up my game bag and his and we're on our way: Me without my muslin camouflaged shirt and my son with his red baseball cap and yellow jersey. Who ever heard of shooting doves in a red baseball cap and yellow shirt? My son reminds

me that I have a white T-shirt on. He also points out the brand new shoes I'm wearing—my green tennis sneakers neatly forgotten in the eorner of the storage room. Oh well, I won't get the new shoes muddy (wanna bet?) and I'll remember to take off the T-shirt (wanna bet again?).

Wow! It's hot out here in the field. We arrived just late enough to miss every blind I seleeted the other day. We'll have to make do with one of the mid-field blinds. The weather is muggy and my glasses are fogging. I take out my white handkerehief and wipe them and two doves flying over—the first we've seen today—see the handkerehief and flare out of range (right over to Charlie, who sets them both on the ground). My son glares at me.

Forget the handkerehief—let the glasses fog. They do, and I push them on top of my head—just in time to see vaguely two birds eome over (blaekbirds? robins? doves?). By the time I get the glasses on my eyes, WHAM! My son's 20 gauge sounds off and one of the doves lands at my feet. "Why didn't you shoot, Daddy?" I glare at my son.

My son, the thirst queneher, has already finished off the small thermos. My stomaeh gnaws with the hunger I earlier said wouldn't happen. Five doves fly over . . . I remind myself: paee, follow, swing-through and toueh off I do, and the lead dove still flies . . . not knowing that he is dead. "Why didn't you shoot, son?" I ask. "I did," he says and walks over to piek up his dove number two. I avoid his eyes.

I spot a dove sneaking up from behind (my hardest shot). I grab my shotgun and puneh a shell at the bird. He drops, and I saunter over to him with the nonehalanee of pretended expertise. As I walk baek another dove slips in . . . a erossing shot, from left to right—my easiest shot. I miss.

A Conservation Ranger eheeks our guns. Did I remember to put the plugs baek in after I eleaned them? I did, and we're all right. The Ranger says nothing . . . nothing exeept his smile . . . as he looks at my son's four doves and my two.

Wow! Is it ever hot out here. It's midafternoon now, and nothing is moving. I spot a grasshopper right in front of me . . . no more than six inehes in front of my nose. He sits looking at me with the same wearied and humid expression I must have looking at him. While we're eyeball to eyeball the only dove in hours flies right over me and then over to Charlie . . . Charlie's got his limit now.

Charlie eolleets his gear and strolls over our way. "Your Dad only brought that little thermos?" he asks of my son. "Here boy, take the rest of mine. Just don't give any to your Old Man. You ean bring it over to my house later." Charlie leaves and I give my son the old you - don't - give - me - some - of - that - ieed - tea - 'll - walk - home look.

Suddenly the sky is filled with doves. They've sat o the hot midday hours and are now just as hungry a am. Wham! Wham! Wham! Wham! It sounds like Pus Perimeter again, and I ean feel the Browning shuek shells but I don't hear it shoot.

They eome in waves . . . nothing, then 30 doves, th 40, then 10. Then nothing. We piek up the dead bir I have four and my son two. That mean's we're tied six apieee. Exeept for the one dove I shot down in high grass. We look and look but ean't find it. W didn't I bring my Brittany today to retrieve woun birds? Truthfully, beeause my Brit is no better prepa to hunt today than I am. She has lolled around the k nel all summer, taking it easy. We have not started long walks yet, and she's too fat and out-of-shape. T same ean be said of her master.

My son's Dad, the thirst queneher, finishes off Ch lie's thermos jug. We sit and wait. The sun is still h and the air is still humid, yet the searing edge seems be off the September afternoon. Soon, night will flo the field. We shoot at nothing, but we see an oeeasio shot. The guy at the eorner of the field must never m I wateh him as he waits for a bird to eome in range at the last possible moment he stands up. The dove p in feathers and begins to fall and only then do I hear report of his gun. Why don't I shoot and aet like th

s doing it right. Then I recognize him—he's the g: who spends a fortune every year on skeet. That's [don't shoot like that. We eollcet our gear and head : small erowd of shooters. We ehat for a while and are bags (only one guy other than Charlie got his rd limit).

) iving home in the twilight we say nothing. Both of s: hot and tired, sweaty and hungry. A dull headache i ids me I've been staring at a too-bright cloudy sky l: ternoon. My son falls asleep on his side of the front e. I remind myself again how mueh he looks like his l er. At home, wc put up the guns and elean birds. t: ot long before the sink looks like we've butehered c asand-pound elk. Sitting in a platter are the breast- t: of 12 doves, enough for one dinner.

V: eonvince the lady and she eooks them. Later, sit- ir n the living room watehing TV, we eontinue to say ch ng. Still later, lying in bed with the lights out I am rt ng off to sleep. Next year on opening day I'll be ee prepared. Still, it was a good day and my son is ei g to be a good shot. I'll bet he's lying there thinking ba the day, too. I intend to think some more on this ou nside my head I'm in a brown millet field and I hik I see a dove way off. I do, and soon he's within ai and I remind myself to: paee, follow, swing h gh and toueh off. I never get to. I'm asleep.

Dove Hunting. By Charley Diekey. Oxmoor House, 112 pp., $2.95

The story I just wrote is typical of many dove hunters, ineluding myself. It doesn't have to be that fretful, unorganized or haphazard. A little planning ean help.

One of the best ways to plan is to have a souree book handy. There is no handier book to have around than *Dove Hunting*. Charley Dickey is a Tennessee boy who's spent a lot of time in Georgia and now lives in Florida. Among many other worthwhile aetivities, he helped Warren Page start the National Sport Shooting Association—the organization which sponsors the National Hunting and Fishing Day eaeh year.

Diekey has provided a sound souree book. His ehapters on "Managing a Shooting Site" and "How Hunting Regulations are Set" are the best I've read on these topies. There is plenty of hunting lore and how-to-do-its in the book and they are all good reading.

The book sells for less than a box of 12-gauge shells and will be far more important to your dove hunting suecess than any one box of shells eould ever be. After all, when you read, "One of Charley's Prineiples on dove shooting is that if you're going to lie, be sure to do your shooting out of sight of talkative witnesses," you know that here's one expert that will level with you!

BM

Sapelo

By Jingle Davis

Photos by Author

The young boy stepped awkwardly from the open boat to the warm, salt-silvered boards of the floating dock, an electric blue nylon duffle bag slung over his shoulders. His older brother, Tony, looped the boat's bow line around a dock cleat and cut the engine.

The sudden silence was as welcome as the warm afternoon sunshine. The long, cold trip from the McIntosh County mainland, across the chill waters of Doboy Sound, had numbed the boy's feet and cheeks and hands.

Michael stood for a moment looking around, thawing out, and temporarily ignoring the gear which waited in the boat to be unloaded. The giant sun-dappled oaks lining the western shore of Sapelo Island beckoned enticingly. True, he hadn't come to look at scenery, but at 13, he still admired good climbing trees. A rising egret pulled his eyes to the golden sweep of marshes spreading like a giant grainfield west of the island.

Michael was glad his first deer hunt would be here, on one of Georgia's Golden Isles. He'd heard there were a lot of deer on Sapelo, and Tony said he had a good chance of bagging one.

Michael quickly gathered his gear when he saw another small boat racing toward them up the Duplin River. He was afraid all the good camp sites would be taken if he and Tony didn't hurry. Through trees he spotted the tents of campers who'd already staked out their territory at the Moses Hammock campsite.

The brothers grabbed armloads of gear and staggered up the dock toward the island. As they stumbled up the bank, the smell of campfires greeted them.

Michael self-consciously walked through the clearing. Boys about his age—and one teen-age girl—were already settled in. When he reached a trailer marked hunter check station a conservation ranger met him at the door and took him in to register.

For a moment, Michael was afraid there might have been a foul-up and his name wouldn't be on the list. He told himself that was dumb—he had applied for this parent-child hunt months ago and was one of the 15 lucky kids picked by the computer in Atlanta. He fumbled in his jacket

Deer Hunt

he eard they'd sent him and felt en panie when he didn't find it. The man sitting behind the desk ed up and smiled. "I have your re right here, son," he said, and ael breathed easily again.

The man was C. V. Waters, regional game management supervisor for the Georgia Department of Natural Resources. He gave Michael a map of Sapelo Island showing the hunt territory.

While Tony filled out forms and talked to Mr. Waters about special hunting regulations (such as the type of guns and shells hunters could use), Michael looked at the map. Some of the places on Sapelo had strange names, he thought. Hog Hammock. Raccoon Bluff. King Savannah. Bourbon Field. Chocolate. Michael hoped he'd remember to ask somebody how Chocolate got its name.

Tony finished the paper work, and Mr. Waters told them to pick a campsite they liked. "Mr. Baker, Outdoor Education Chief, will be here later this afternoon to give a course in hunter safety," Mr. Waters said.

Michael smiled weakly. Tony had been over hunter safety so many times already, Michael thought he knew the rules by heart. But he was too happy to let the threat of a little schooling spoil his day.

It didn't take them long to set up camp once they'd found the perfect place under a big oak near the river. As Michael was pounding the last tent stake into the soft earth, a dark-haired boy carrying an armload of wood wandered over from a nearby camp.

"Thought you could use this until you can get some firewood cut," the boy said.

He helped Michael build a camp fire, and they sat and talked about things and soon were comfortable with each other, as though they'd been friends a long time. John, the other boy, was from southwest Georgia; a long way from Michael's home in Toccoa. This was John's first deer hunt, too.

"Come on, let's walk over to the cooler and look at the big map," John said. "Maybe one of the rang-

ers can show us a good place to h
tomorrow."

The rest of the afternoon pas
quickly. John and Michael explo
Moses Hammock, met the other l
and parents, and talked to the
girl who'd come on the hunt.

The hunter safety class tur
out to be fun. Michael wished al
his teachers were as interesting
Mr. Baker. Tony even said
learned a lot.

After supper—hot dogs, pork
beans, canned peaches and ho
made brownies—Michael, John
Tony sat around the campfire, t
ing about the next day's hunt. Jol
father came over and he and T
discussed deer sign they'd noti
on the island. The boys tried to
member all the terms—rake and
and scrape.

They banked their campfires e
and turned in, as the first vehi
were scheduled to leave camp
dawn to distribute hunters thro
the 15-square mile managen
area.

At 6 a.m. they were all
dressed, and ready to board on
three flat-bed trailers pulled
pickup trucks which would ca
them to the hunting sites th
chosen. Tony and Michael had
cided on number 32, which wa
the Raccoon Bluff area.

Michael sat next to Tony on t
bouncing wooden seat, shivering
cold and excitement. At intervals,
drivers stopped to let off a pai
hunters at one of the numbe
stops along the dirt road. Mos
the hunters carried flashlig
though silvery light from the m
made navigating the woods a l
easier.

At last they reached number 3
Several hunters wished them luc
they climbed off the truck, and t
driver told them he'd be back aro
in two or three hours to see if t
were ready to come in.

Some of the hunters had brou
tree stands, but Michael and T
found a tall pine near an open fi
They cleared an area around t
trunk of small twigs and dry, cra
ing leaves so their movem

ldn't give them away to the wary
etails.
he brothers sat without talking,
backs against the tree, eyes
ning through the darkness. At
the woods seemed silent, but
Michael began to notice all the
sounds. A diesel engine
bbed throatily as a shrimpboat
ged through Sapelo Sound. Fall-
acorns ricocheted like pinballs
igh a maze of branches toward
ground. A bird rustled in a pal-
o thicket. A raccoon scurried
ss the slick carpet of pine
les, almost close enough for
ael to touch.

aylight arrived in steps. First the
grape leaves showed black lace
uettes more clearly against the
ning sky. Then pinpricks of
nce began to glimmer teasingly
gh the trees to the east. Slowly
n melted up into the sky, glow-
ven more brighter than Michael
ony's fluorescent orange safety

Michael saw a movement out of the corner of his eye, and turned his head slowly. It was a deer, but too far away for a good shot.

The animal was browsing, just picking its way. First the deer came closer, then it wandered back in the other direction. Michael gripped his gun and wished the darned squirrels would stop chattering. Every time they made a noise, the deer would throw up its head as though it were going to run.

Michael felt tense all over. He looked at Tony, whoses eyes were also following the deer's movements. Tony shook his head and Michael sighed, knowing it wasn't time yet.

Slowly the deer worked its way closer. Even more slowly, Michael raised the gun and sighted down the barrel. At last Tony gave the go-ahead nod, and Michael fired.

There was a sharp crack, a drift of smoke, and Michael felt his heart leap into his throat as he saw the deer—his deer—disappear into a palmetto thicket, its white tail flashing like a flag. A search revealed no blood, verifying a clean miss.

Tony patted him on the shoulder. "Well, you missed that one. But you'll have other shots."

Michael nodded, but his legs trembled and his stomach had a hollow place as big as a watermelon.

The rest of the day, Michael and Tony still-hunted, walking down wooded trails where copper-colored leaves crunched under their boots. They explored open fields and pushed their way through pine thickets. At noon they stopped for a quick lunch of sandwiches and water, then started out again. Michael's arm kept going to sleep from the weight of the gun.

Tony said they had a chance of sneaking up on a deer that had bedded down for the day. But after several hours of walking, Michael was almost too tired to care how much noise he made. He tried to

move more quietly after a big buck exploded into the road just six feet ahead, snorted loudly and vanished into the trees before Michael even thought about his gun.

The sun was touching the tops of the tallest pines when Tony said it was time to get back to the main road, where the trucks would pick them up. As they came out of the woods, Tony froze and pointed. There was a deer crossing the road ahead—a perfect shot. Michael raised his gun, aimed, and was squeezing down on the trigger when Tony said loudly, "Stop, Michael! Don't shoot!"

The deer bounded into the woods and Michael lowered his gun, seeing for the first time the orange vest of the hunter who had stepped into the road several hundred yards beyond the deer.

The hunter was looking the other way and obviously hadn't seen either Michael or the deer. Michael felt like cussing, but he knew what Tony said about hunters who lost their tempers. He was tired and angry and frustrated and beginning to wonder if deer hunting was worth it.

He found it especially hard to be enthusiastic about deer hunting when he got back to camp and found that John and several others had already gotten their deer. Just to be polite, he wandered over to the weighing station and watched as a couple of DNR biologists field dressed the animals.

John was really excited about his spike buck. He told Michael over and over how he'd shot it, how much it weighed, and how the biologists were going to send its jawbone off somewhere to scientists could study it. Michael stuck around until John's deer was hung in the big cooler, then said goodnight and trudged back to camp. He barely tasted the supper Tony cooked, and he crawled into his sleeping bag as soon as the dishes were done.

When Tony shook him awake the next morning, there was a cold drizzle of rain falling. Michael groaned and snuggled deeper into his covers. 'Come on, Mike, the hunting will be good today. The deer can't smell or hear as well when it's raining," Tony said.

Michael ached all over, but he hated to give up now.

In less than an hour, he and Tony were back at their tree, shivering in the dripping woods. Michael stared into the woods, thinking how dreary and gray they looked in the rainy morning light.

It was almost as though he were dreaming when he saw the doe move into the clearing. Michael raised his gun, aimed, then saw a big buc following the doe. Still sure he w dreaming, Michael switched target He took a deep breath, squeezed th trigger slowly, and barely heard th noise of the gun as it fired. He s there, stunned, holding his smokir gun, as the buck fell like a droppe stone to the ground.

"You did it, Michael! That was great shot!" Tony was pounding hi on the back and shouting in his ea Slowly Michael came out of h trance. It wasn't a dream! And h buck was right there on the groun in front of him.

Michael dropped his gun, charge over to the deer, and stood there admiring its antlers and its smoot tan coat and its snow white tail.

"We'll have venison tonight, Tony said, grinning down at hin Michael nodded. Somehow he didn feel like talking right now. He ju wanted to stand right here besid his buck—his very first buck. H knew he'd want to tell everybod about how it happened. He kne he'd brag for weeks about how muc it weighed and how many points had. But for now, he was completel content to stand in the wet wood looking down at his deer.

(Michael's deer hunt was one c three quota hunts held for the firs time last year on the state-owne portion of Sapelo Island. The Oc tober hunt was a buck-only event fo adults, while the November an December hunts were parent-chil events. On the last two hunts, onl the young hunters were allowed t carry guns. The rules permitted ther to bag a deer of either sex, unde adult supervision.

C. V. Waters, regional game man agement supervisor on Sapelo, sai hunters success rates were unusuall high—59% for the bucks-only; 27% for the November parent-child; an 29% for the December parent-chil

Waters said hunters interested i attending one or more of the Sapel hunts scheduled for this year shoul fill out a quota hunt application an submit it before September 2 1976. Hunters' names will be s lected by computer drawing in A lanta on October 15, 1976.)

Sweetwater Creek

State Conservation Park

By Susan Wood

Photos by Bob Busby

Hidden somewhere in Douglas County due west of Atlanta sprawls 867 acres of one of Georgia's newest and most historic state parks. Sweetwater Creek State Park lies nearly undisturbed, a still virtual wilderness, hiding remnants of what was once one of Georgia's most prosperous industrial sites. But over a century ago the town supposedly vanished in one day, and now only a ghost town remains.

Getting to Sweetwater Creek is an adventure in itself. Over dirt roads and one-lane bridges paralleling the Interstate, past houses with "real character" you might say, around seemingly endless curves, you finally pass the George Sparks Reservoir and you're almost there. No signs mark you way; you blaze your own trail.

On a hot, muggy morning all is still and quiet along the narrow path to the edge of the creek, which is more like a river than a creek. At

creekbank, too, stillness per-
les. The brown water moves
wly, cicadas and brown thrashers
orus somewhere in the thick
oods, multihued butterflies me-
ler as if they had all the time in
world. And here even people
lk slower, breathe deeper . . . until
murmuring becomes audible in the
tance. Intrigued, you quicken
ir pace up and down little hills
r tiny flowing springs. Louder
l louder, faster and faster, then
u know. Yes, the slow, brown
er has met the rocks of the shoals
l the roar is almost deafening.

The sun is high by now, no breeze
s, the air just hangs. From this
craggy overlook, you glimpse
streams merging furiously. White
er swirls, casting a semi-hypnotic
ll over you. Then you notice
're standing on a once-carefully-
rock wall and behind you curve
rs now leading to nowhere. A
st town, remember? Hear the
oes?

Curious, you walk faster along the
to see where it leads, and sud-
ly you come upon a mighty brick
cture, a skeleton telling of some
-ago existence. The brick shell
five-story mill, circa 1842, is all
remains of a once-prosperous
le mill where workers made
n for uniforms, powder bags and
s for the Confederate Army. Now
100 years old tower above what
s once the roof. For when he
e marching through Georgia, ol'
Sherman, ever a vengeful man,
red one Major Tompkins to put
torch to the mill and town, ar-
t all employees, owners and man-
s, charge them with treason and
rt them to Indiana. In other
rds, Sherman wanted New Man-
ster, the town which had grown
round the mill, wiped off the
p. His orders were carried out on
y 9, 1864 when the trained op-
tives of New Manchester and
well were hauled off in 110
ns to Marietta, then Nashville
on to Indiana.

Now the multitude of gaping win-
holes look desolate, ravaged.
de the mammoth skeleton,

Shrouded by encroaching forest, the skeletons of New Manchester stand like a ruin of a past civilization—which indeed they are.

shoals rush by, oblivious to time and her cruelty. Once these shoals provided power for the mill; now the millrace flows every so slowly. Where once old and young alike sweated and toiled is now overgrown with trees and weeds. Vines have climbed the tall brick walls, 50 feet high, 24 inches thick, and the imposing rock archway, carefully hand-laid 125 years ago. Moss and lichens shroud the home-made, imperfect bricks which tell the story of the workers who in the 1850's playfully carved their names into the bricks, not mindful that by this they would be remembered so many years later.

Laborers at the factory spun cotton into yarn, wove it into cloth, then bleached and dyed it first in peacetime, then in war. Others worked from daylight to sunset operating a flour and grist mill while nearby leather workers made shoes and other leather goods. The Sweetwater, later New Manchestser, Manufacturing Company also made machinery here, and the brand name became well-known throughout the South. Because of their wartime production and the vehement secessionist sentiments of one of the owners, past governor Charles J. McDonald, Sherman wanted New Manchestser wiped off the map.

The once-prosperous town even boasted its own post office, opened in 1859. The flourishing company sought to build a rail line in 1856 from Atlanta to Sweetwater Factory in what was then known as Campbell County. The mill was doubtless the center of community life in New Manchester. Couples even said their marriage vows standing by their looms overlooking the shoals. Today foundations of more than 12 structures, among them the company store, machine shop and community house, have been found.

There's an eerie feeling there deep in the woods amid ruins of a lost town. Those holes in the brick walls —what made them? The charred remains of campfire within the towering walls—are they, too, remains from a century ago? The noise—is it the imagined rumbling of the 50,000 pound wheel? Or a 727 circling for landing at Atlanta-Hartsfield International Airport some 20 miles away? The gunfire—Union soldiers or the East Point police at their nearby firing range? These remains are so desolate, yet serene—remind us of the hardships of the past.

But there's more to Sweetwater Creek State Park than the fascinating ruins. If you can tear yourself away to wander on past the mill, you find boulders in the swirling water get so big that trees grow out of them. Care to wade in the stream? The meandering trail gets steep and rocky in places but is worth the rugged climb. Up one almost sheer cliff, you'll overlook a promising little fishing cove and can look back upstream for almost a mile. If you look closely you may find some tiny fresh water clam shells along the water's edge or maybe some gems such as garnet along the rocky trail. Or fresh signs of beaver at work.

Sweetwater Creek State Park is a day-use park. No camping is allowed since the park is open only from 7:00 a.m. to 6:00 p.m. But its unique beauty will fascinate you, its uncrowded quiet will delight you.

All in all, Douglas County's ghost town is well worth the search.

Outdoors in Georgia's

Southeastern Wildlife Art Exhibit

October 21-24, 1976
Perimeter Mall
Atlanta, Georgia

Original wildlife paintings, sketches, sculpture and photography exhibited in the mall.

Outdoors in Touch

Edited by Bill Hammack

SALT WATER TENDERFOOT LANDS GEORGIA RECORD SPECKLED TROUT

Tommy Hall of Waycross, a salt water fishing novice, landed a monster fish not long ago that turned out to be the new state record speckled trout.

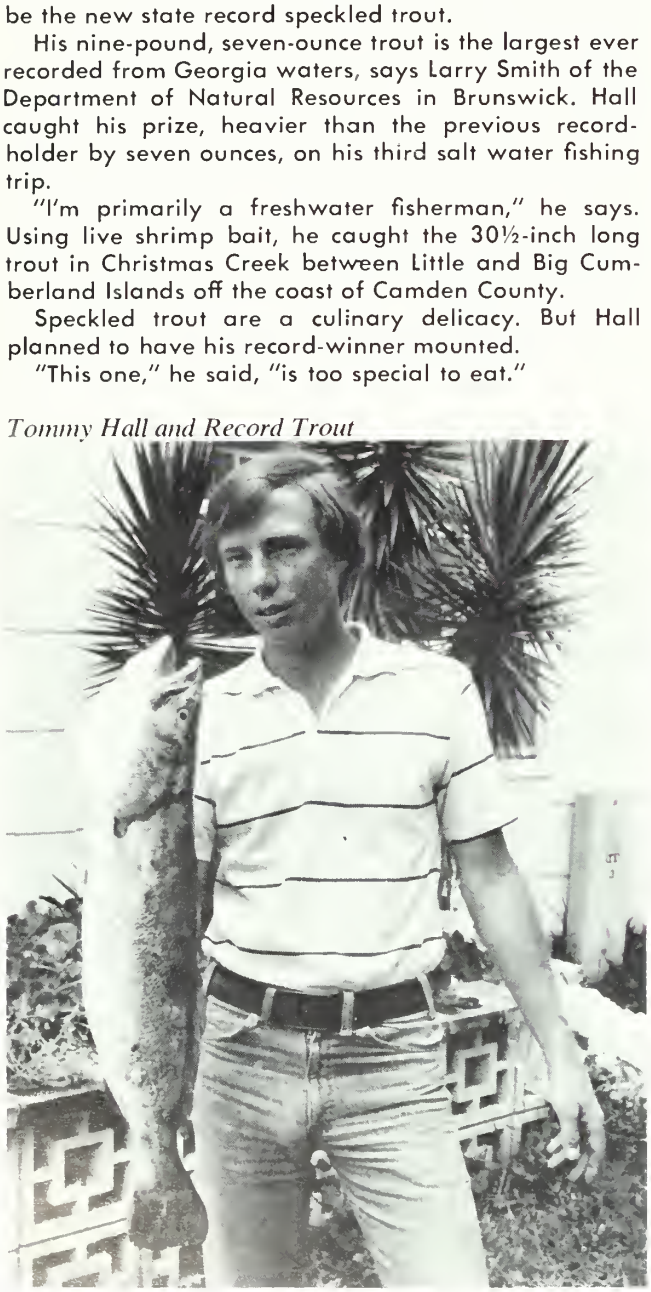
His nine-pound, seven-ounce trout is the largest ever recorded from Georgia waters, says Larry Smith of the Department of Natural Resources in Brunswick. Hall caught his prize, heavier than the previous record-holder by seven ounces, on his third salt water fishing trip.

"I'm primarily a freshwater fisherman," he says. Using live shrimp bait, he caught the 30½-inch long trout in Christmas Creek between Little and Big Cumberland Islands off the coast of Camden County.

Speckled trout are a culinary delicacy. But Hall planned to have his record-winner mounted.

"This one," he said, "is too special to eat."

Tommy Hall and Record Trout



GEORGIA'S "CONSERVATION PREACHER" RETIRES

They call him the "conservation preacher."

He has delivered thousands of speeches throughout Georgia and the Southeast to civic and sports and [illegible] and church groups—he has made some talks from church pulpits—exhorting his audiences to get right on conversation.

He has appeared countless times on TV in Georgia and Florida, and on national TV's "Wild Kingdom." His own local radio show beating the drums for conservation was a weekly feature.

He is one of the best-known Game and Fish conservation rangers in Georgia's Department of Natural Resources (DNR)—Paul Johnston.

Demosthenes, the Greek whose name became synonymous with oratory, trained himself to speak in public by filling his mouth with pebbles and walking the beaches declaiming over the sound of the waves. Paul Johnston trained himself on his rounds as a ranger—he'd park out in the woods and from the truck bed of his pickup, he'd address the trees, the stumps and all the 'gators, deer and bullfrogs within range of his voice.

"Back yonder a while, I wanted to take a Dale Carnegie course, but I didn't have the funds," Paul says. "So I'd check out Dale Carnegie books from the public library. They were helpful."

Struck by muscular dystrophy, Johnston retired September 1 as a sergeant generalist—sort of a top sergeant—from the Waycross District of the Law Enforcement Section of DNR's Game and Fish Division.

Johnston was born in 1930 at Blackshear in Georgia's Pierce County, educated in public schools at Alma where his mother was a school teacher, and at Brewton-Parker Junior College at Mt. Vernon, Georgia.

After serving with the U.S. Air Force in Korea—he came out of the Air Force as a sergeant—he began his law enforcement career as a deputy sheriff in Ware County. In 1960 he joined Game and Fish as a ranger. In 1969 he was chosen "Ranger of the Year."

As word of his speaking ability and his devotion to enlightened conservation spread, Johnston was called on to address ever-widening circles of groups who wanted to hear what he had to say. His travels stretched beyond Georgia's boundaries, to Alabama, Florida, Tennessee and the Carolinas. Taking his text from the first Chapter of Genesis where God tells our ancestors to "have dominion over the fish of the sea and over the fowl of the air, and over every living thing that moveth upon the earth," Johnston declares that we have been charged to take care of our natural resources in such a way that they will be here for the enjoyment of all generations to come. "And in the third Chapter of Ecclesiastes," he says, "we read 'To everything there is a season, and a time to every purpose under the heaven . . .' This is the time we should be determined to keep our streams clear and clean and free from pollution, when we should join hands to help keep Georgia and all America beautiful and green and productive. This is the time that we as adults must learn, and must teach our children, to have respect for God's green earth and all of its creatures."

Jack Crockford, director of the Game and Fish Di

n, says "Paul Johnston is a dedicated conservationist d an outstanding law enforcement officer. We thank n for a job well done."

RST WOMEN RANGERS IN GEORGIA RE ROOKIES WHO RATE SALUTES

First woman in Georgia's conservation ranger cadet ogram in the state's Game and Fish Division of the partment of Natural Resources is 26-year-old Lysie eenlee of Marietta.

And the first woman park ranger in Georgia is 29-ar-old Vickie Becker of Macon.

A former school teacher in Georgia's Clarke County, ie Greenlee entered "Operation Catch-Up" last year the University of Georgia where she was working on master's degree. "Operation Catch-Up," funded by Law Enforcement Assistance Administration, is de-ned to bring women and members of minorities into enforcement.

"The work interested me and I thought the course ght help me get a job," said Ms. Greenlee. "I was -king on my masters in education. But that field is of full. The deeper I got into the law enforcement rse, the more it appealed to me and I decided to try nake law enforcement my career."

She says she's stimulated by the challenge of her job ne Law Enforcement Section of Game and Fish. "I'm erwhelmed by how much I have to learn to become mpetent conservation ranger. During the time I'm a det, I know that Game and Fish officers are watching to see if I can cut the mustard. And I'm testing elf, to find out if I've got what it takes to be a me and Fish law enforcement officer."

Jack Crockford, director of the Game and Fish Divi-s said, "For a long time, sportswomen have enjoyed ng and hunting and boating and the outdoors. So not a woman ranger? If Ms. Greenlee meets our dards as a law enforcement officer in the special-c field of conservation, I'll be tickled to welcome her ard and salute her as our first woman ranger."

So far, the ranger trainee has been earning high rks as a cadet. "She seems well qualified and her det work is entirely satisfactory," said Col. R. K. sler, Chief of Game and Fish's Law Enforcement

Li Greenlee, Jack Crockford

Henry Struble, Vickie Becker, Joe Tanner

Section. "I'm pleased that we've been able to attract young women applicants with background and training such as Cadet Greenlee's."

Greenlee has been assigned to Lake Allatoona. If you're doing something wrong or unsafe on the lake and an attractive blonde in a green uniform flags you down . . . stop and pay attention. She's the law.

"Vickie Becker served her college internship with us," said Henry D. Struble, director of the Parks and Historic Sites Division of the Department of Natural Resources. "She performed well in directing our 1975 Summer Youth Conservation Corps project. That's when she told us she wanted to go to work with us. She has many skills and abilities to offer our division. We considered her an outstanding prospect."

Ms. Becker has been assigned as park ranger in Chattahoochee River State Park near Atlanta. Tom Carter, park superintendent, said, "I was concerned about a woman serving as ranger at Chattahoochee River. Frankly, I didn't think a woman could handle some of the situations she'd be confronted with. Vickie changed my mind about that. She earns the respect of about everybody she comes in contact with. She's a take-charge type woman. Right now she's in charge of maintenance operations. It's a big job. And the park looks better now than it has in a long time."

Becker says she has always loved the outdoors. "Canoeing, hiking, camping—love 'em all," she says. "Got to thinking that maybe outdoor recreation would be a good professional career."

She earned her masters degree in physical education from Georgia State University in 1974, having won her undergraduate degree from Georgia Southern College in Statesboro. "Sure, it's a challenge to be the first woman park ranger in Georgia," she says. "And I know I'm a green hand. I've got the educational background, but I'll need guidance in gaining experience. I'm already receiving it. Mr. Struble and Mr. Carter have been great. Everybody in the department seems to want to help me make good. I'm not going to let them down if I can help it."

One of Becker's hobbies is CB radio. If you are a CB'er and hear a young woman say, "This is Forest Fuzz," that's Vickie Becker, Georgia park ranger.

Letters to the Editor

Thank you for the materials, including the color seps for Ron Simpson's story, "To Have More Quail."

The story was very popular with our readers, as letters have evidenced.

I am returning the materials and a copy of the story as it appeared in our own publication.

My sincerest congratulations to you and your staff on the excellent publication you produce for your state. I find it excellent reading, as do others on our editorial board.

I plan to ask permission for another reprint story in the future . . .

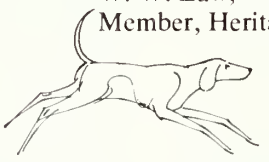
Bob Thurston
Editor/Publisher
The American Shotgunner

Dear Editor Morehead:

This is to acknowledge, with many thanks, my subscription to *Outdoors in Georgia.*

It is an excellent publication and I enjoy reading it. Each edition seems to be better than the last one. Please keep up the good work. It is the state's best magazine.

Sincerely,
W. W. Law,
Member, Heritage Trust

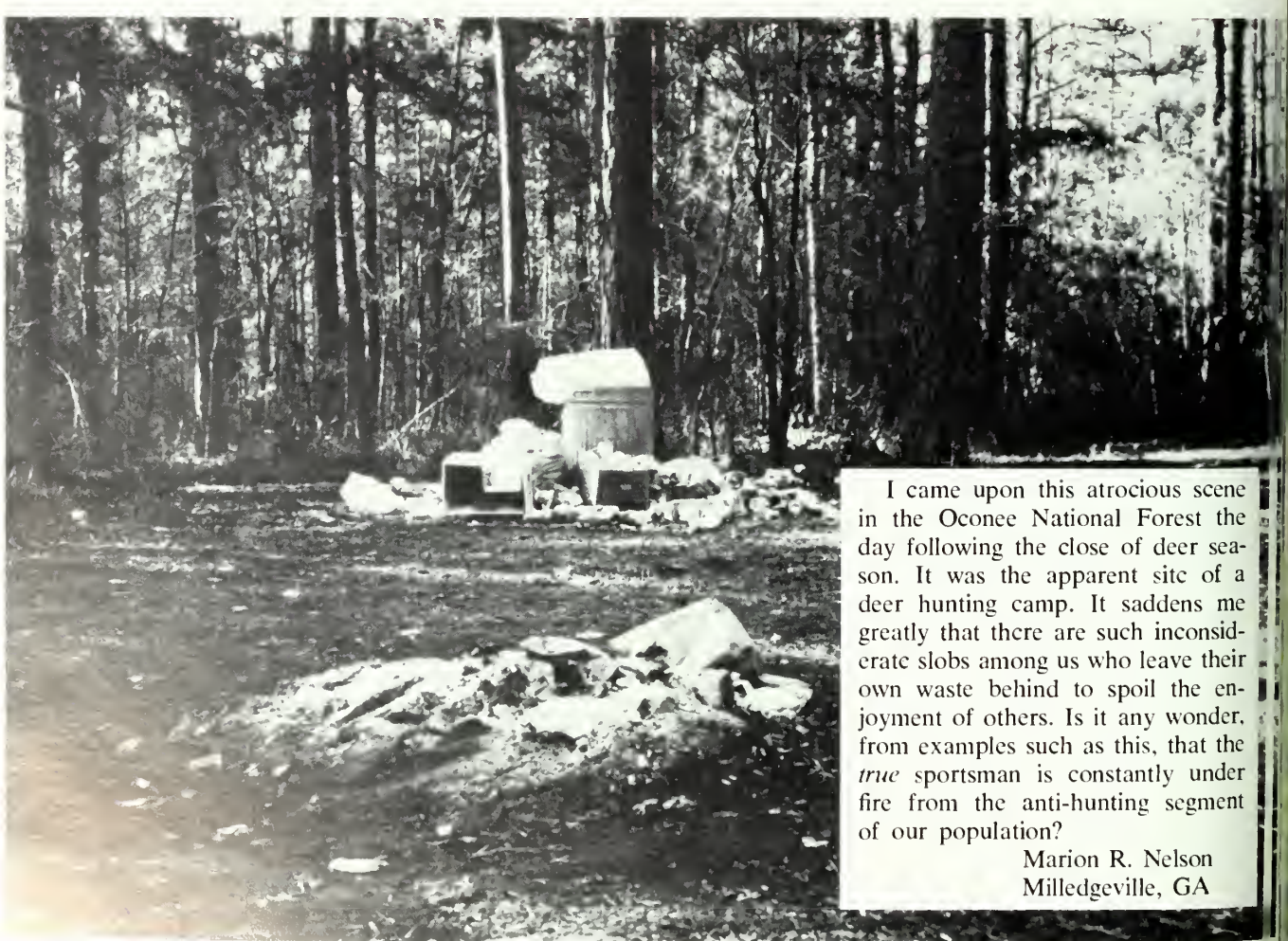


Here are my congratulations on your fine magazine. I think you are doing a great job on your selection of different articles. This gives every one something of interest in each issue.

I would like to see a short outline of upcoming hunting seasons, just a list of proposed dates that the Department has set up, with possible changes understood, something that general plans can be centered around. As you know, a good hunting season sometimes takes a lot of planning. I think this would be a welcome addition to your magazine in the early summer.

Your still have one of the greatest magazines on the market. Keep up the fine work.

Leslie G. Bell
Mountain View, GA



I came upon this atrocious scene in the Oconee National Forest the day following the close of deer season. It was the apparent site of a deer hunting camp. It saddens me greatly that there are such inconsiderate slobs among us who leave their own waste behind to spoil the enjoyment of others. Is it any wonder, from examples such as this, that the *true* sportsman is constantly under fire from the anti-hunting segment of our population?

Marion R. Nelson
Milledgeville, GA

Endangered Species

Wildlife and Plants

en·dan·ger/ in-'dan-jar/vt: to bring into danger or peril.

ENDANGERMENT

Eastern Brown Pelican

That certain wildlife species, animal and plant are currently endangered is a generally accepted fact. Most people have at least a passing knowledge that several North American wildlife species have become extinct in the last century and that other species may be facing that same fate. This may well be all one knows about endangered species, but it is usually enough to evoke a hope, however faint, that someone will do something to prevent that end.

Beyond this point, reaction to the endangered species situation becomes more diverse and is often represented in extreme points of view. One end of the spectrum is represented by the highly emotional belief that all God's wild creatures are tottering on the edge of doom. The other end is the cynical reflection that the world has done O.K. without dinosaurs.

Extinction is a natural process and is the inevitable consequence of a species' failure to adapt to changing conditions. As a natural force, extinction accommodates the process of evolution; it is a culling of unadaptable species. The rate of extinction, or the number of species becoming extinct within a given time period, is another matter. This rate today far exceeds that which could be called natural.

Man, in the brief century he has truly developed technology, has become able to radically alter the face of the earth. Extinction, still a natural culling, has removed those species unable to adapt to the activities of the human population. These extinctions, perhaps premature, have swollen the rate of extinction and engendered concern over the concept of endangered species.

Not all wildlife, animals or plants, are created equal. Each species exists within a set of guidelines called a niche. They cannot exist beyond the parameters of this niche for very long. For some species this niche is broad and general and these species have adapted to the changing world—some have a more narrow range of tolerance and many of these have been devastated by the changes man has wrought.

Species with a narrow or specialized niche are fragile, and easily decimated by elimination of intolerable alteration of that niche. It can be said that most of

day's endangered speeies have always been rare, but at is a rationalization, not an absolution. As we begin to nderstand the incredibly complex interrelationships of e natural world, we must also understand that nothing ists without function. We may perceive that function nly or not at all, but it is there and is neeessary thin the system.

Besides the subtle roles a species plays in its natural mmunity, there are other values with which it is easier relate.

Aesthetic value, to man at least, is a prime eonsidera- n. Many endangered speeies have, in their unique ys, a quality of attraetion whieh makes them worth- ile in their own right and adds greatly to the mosaie their natural environment. Their own beauty ean be ir undoing as in the ease of many endangered wild vers. Because they are beautiful (and rare) they are ably desirable to collectors. This is one of the major erse pressures on some speeies.

f beauty and natural balance are two measures of worth of unique species, there is another which is ninently more practical. Those speeies living within row tolerance limits are the most sensitive to habitat radation. They serve as indicators of environmental lity (and by being endangered, an index of environ- tal ruination). For example, the hazards of pesticide ution were brought to public attention by researeh certain speeies of birds, most notably eagles and ons. Other hazards to the environment as yet eteeted will possibly come to light as researeh on r plants and animals eontinues. This may be an early ning of future human hazards.

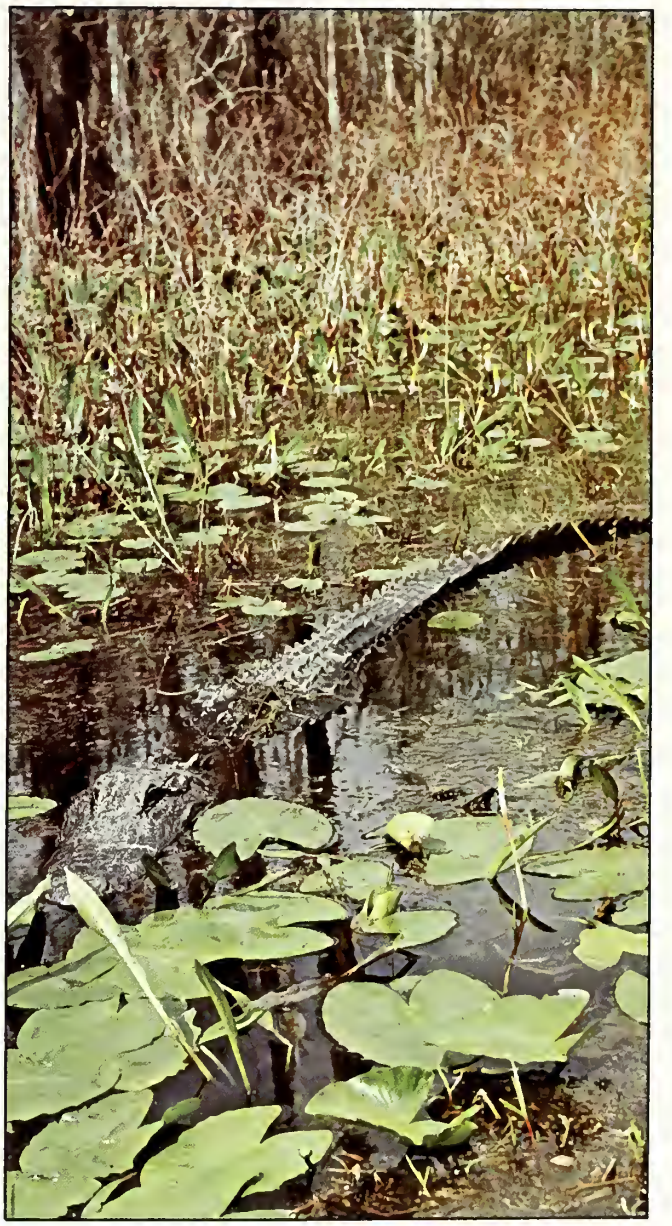
esearch is a big factor in a eonstructive program to endangered speeies. Only time consuming and iled study will get to the real eauses of many speeies' blems. This is frustrating to many endangered ies enthusiasts who say, "While you're earrying on arch these things are disappearing." No species will ved or even aided by emotion alone, regardless of its erity. Trying to preserve a species without adequate vledge of its critical limiting factors is akin to trying ve a burning house by painting it.

Sometimes the problems are amazingly forthright. The rican bison was brought to the voyage of extinction anton killing for sport, profit, and as a governmen- sanctioned means to subdue the Plains Indians. solution—stop the killing—worked. On the other , the problems of the American bald eagle were vered by extensive research. Only after conclusive nce that pesticide residues were lowering reproduc- ates and the use of some of those pesticides d was there any real aid for eagle populations.

The endangered species we study today are often more ne eagle than the bison. Their problems are usually lex and subtle, since most of the "easy" problems been solved. To effeet a meaningful program to aid e species, we must identify them, isolate the factors are detrimental to them, and modify those factors viate the pressure. Only then can we realize the ultimate goal of removing these species from the endangered list.

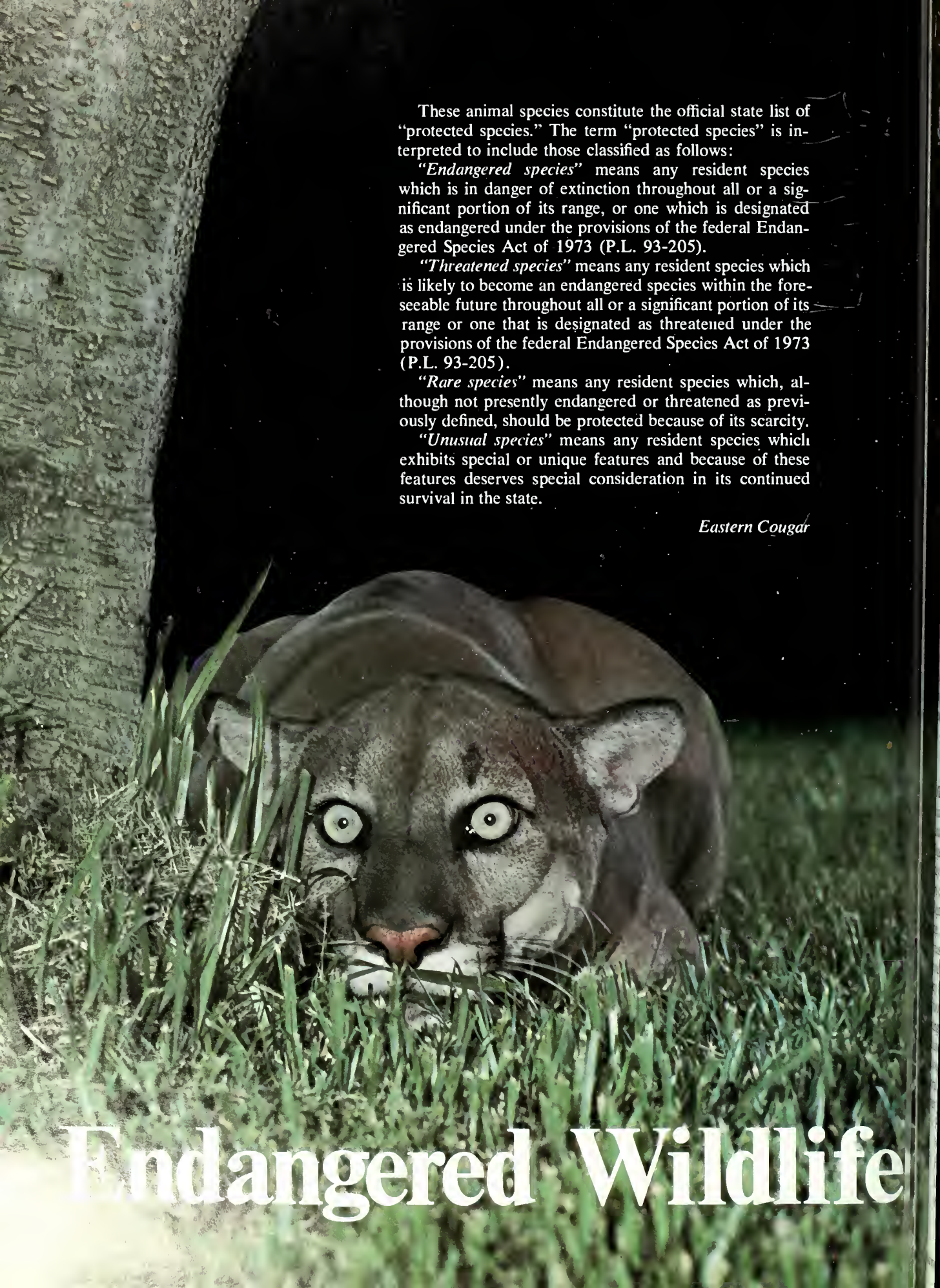
We must also be realistic. Some species which are now rare have always been rare, and, if they survive, will always be rare. We must realize that extinction, as a natural force, is still going on. It was around long before man turned either a destructive or constructive hand toward wildlife. It is our hope through a balanced and effective endangered species program, to prevent "premature extinctions" and slow the rate in our time. The goal of this program must be, not the maintenance of a list of perpetual protection, but the removal of species from the list by relieving their endangerment.

—Aaron Pass



American Alligator

Photos courtesy U.S. Fish and Wildlife Service.



These animal species constitute the official state list of "protected species." The term "protected species" is interpreted to include those classified as follows:

"Endangered species" means any resident species which is in danger of extinction throughout all or a significant portion of its range, or one which is designated as endangered under the provisions of the federal Endangered Species Act of 1973 (P.L. 93-205).

"Threatened species" means any resident species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range or one that is designated as threatened under the provisions of the federal Endangered Species Act of 1973 (P.L. 93-205).

"Rare species" means any resident species which, although not presently endangered or threatened as previously defined, should be protected because of its scarcity.

"Unusual species" means any resident species which exhibits special or unique features and because of these features deserves special consideration in its continued survival in the state.

Eastern Cougar

Endangered Wildlife

SHORTNOSE STURGEON — *(Acipenser brevirostrum)*

Status — Endangered

The shortnose sturgeon is an anadromous species which occurs in major river systems along the Georgia Coast. Living most of its life in the sea, it returns to these river systems to breed. During these spawning runs it is occasionally caught in nets by shad fishermen. Over fishing and pollution are thought to be the primary reasons for his species decline in numbers.

EA TURTLES

ATLANTIC RIDLEY *(Lepidochelys kempii)*
HAWKSBILL *(Eretmochelys imbricata)*
LEATHERBACK *(Dermochelys coriacea)*

tatus — Endangered

lthough not generally considered nesting species in eorgia, these great sea turtles occasionally occur off the oast. Similar to the more common loggerhead sea turtle, hich is currently proposed for the Federal endangered pecies list, these great reptiles live their lives in the sea nd return to coastal beaches to lay their eggs during the ummer.

lany factors are involved in the decline of sea turtle opulations, primarily of which is the loss of nesting abitat to real estate developers along the coastal dunes. ther less destructive pressures on sea turtle numbers inlude: predation of eggs by raccoons; sand crabs, wild ogs, and man; incidental mortality by drowning of rtles accidentally caught in shrimp trawls; predation on oung by sharks, fishes, sand crabs, raccoons, gulls, and ows. Erosion, caused by severe weather, also uncovers umerous nests.

Immature Hawksbill

MERICAN ALLIGATOR — *(Alligator ississippiensis)*

tatus — Endangered

lligators regularly occur in eighty of 159 counties, genrally in the southern half of the state. Largest populaons occur in coastal and southwest sections of the state. lligators occur in virtually all wetland types within its ange, particularly river swamp systems.

ncreasing numbers of alligators are occupying the numerous farm ponds throughout South Georgia and in ny instances have become pests to landowners.

lthough currently listed by the Federal Government as ndangered, recent surveys by Game and Fish Personnel dicate that an endangered classification is questionable. lthough our Statewide populations continue to expand, veral factors were involved in population declines in ier years:

) Habitat losses — large acreages of wetlands have been drained over the past several years.

) Heavy poaching — high demand for alligator leather exerted extreme pressure on populations throughout the southeast.

EASTERN BROWN PELICAN — *(Pelecanus occidentalis)* (above)
Status — Endangered
The State of Georgia supports both a winter and summer population along the coast, however no nesting has ever been recorded in the State. Brown Pelicans are regularly seen along our coastal beaches and sounds, often in fairly large groups, flying elose to the water or sitting on sandbars near the beach.
The decline in pelican populations has been attributed primarily to reproduetive problems associated with excessive amounts of pesticides found in their diet of fish. High pesticide levels have been found in the tissues of pelicans and their eggs. The pestieide DDE has been identified as the primary eause of eggshell thinning, which results in collapsed eggshells and in turn, limits production of young. Heavy metals have also contaminated the birds in similar ways.

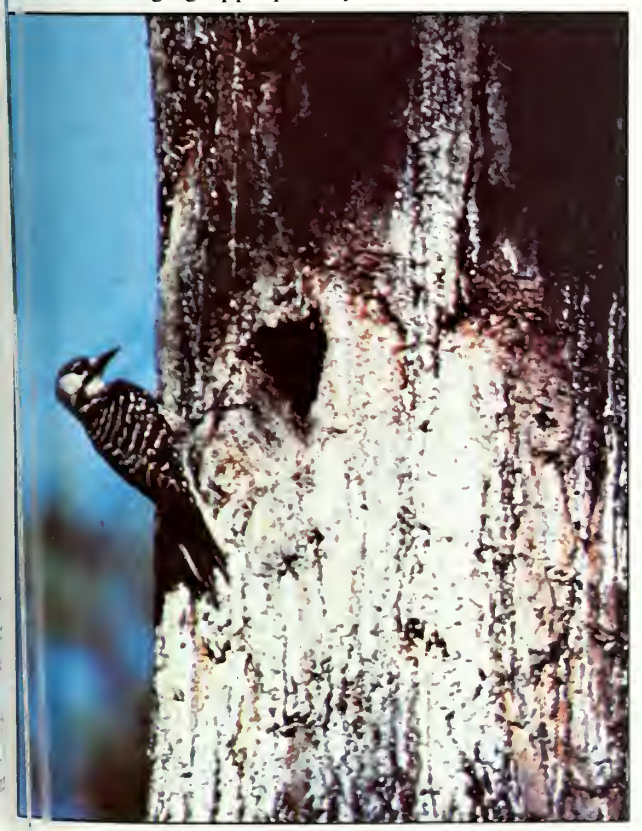
PEREGRINE FALCON — *(Falco peregrinus)*
Status — Endangered
The peregrine falcor is a winter resident of the State occurring primarily along the coastal beach areas. Major movements occur along the coast during the spring and fall migration. The many species of shorebirds along the beach areas are favorite foods of the peregrine.
The peregrines' problems are not unlike many of our other birds of prey. The most important factor limiting their numbers is the ingestion of pesticides with their food supply. Increased usage of pestieides in this country saw a corresponding decrease in peregrine populations. High levels of pesticide result in poor reproductive success, and occasionally the death of the bird.
Human disturbance has been limiting to some extent in their breeding grounds, however this is not a factor in

SOUTHERN BALD EAGLE — *(Haliaeetus leucocephalus)* (below)
Status — Endangered
Most bald eagle observations throughout the State a uncommon and appear to be of migrant birds, howev we do have a few resident birds. Nesting pairs have be nearly non-existent for the past several years. The la known successful nest was on St. Catherines Island a raised two young. Formerly bald eagles nested more fr quently along the coast on the barrier islands. Barri islands provide ideal habitat for the birds with their go supply of mature dead timber available for nesting, th isolation, and bountiful supply of fishes.
Exact reasons for the decline of nesting bald eagles Georgia is unknown, however causes for the general c cline throughout the Southeast include: impairment reproduetive process due to ingestion of pesticides, ille shooting, loss of nesting habitat, and human disturban

IVORY-BILLED WOODPECKER — *(Campephilu principalis)*
Status — Endangered
Ivorybills have not been observed in Georgia for m years, however since our State formerly supported Iv bill populations, there is a faint, though doubtful, h that the speeies may still exist in Georgia. The spe formerly occupied large tracts of mature bottoml hardwood throughout the Southeast. Large tracts this habitat were necessary to provide an adequate f supply of wood boring insect larvae for the birds.
The primary factor thought to be responsible for the d cline of the Ivorybill is the elimination of large tr of overmature timber which are necessary to main a an adequate food supply.

EASTERN COUGAR — *(Felis concolor)*
Status — Endangered (Photo Page 22)
The range of the Cougar would probably include the entire State, although its' occurrence is more likely in the more remote and wild areas of Northern and Southern Georgia.
Preferred habitat includes large tracts of wilderness with a good supply of food (primarily deer). Cougars are extremely shy animals and will not tolerate much human disturbance.
The decline in cougar numbers probably can be attributed to elimination of prime habitat areas due to human encroachment, low numbers of prey species, and harrassment by the public.

RED-COCKADED WOODPECKER — *(Dendrocopos borealis)* (below)
Status — Endangered
Range of the red-cockaded woodpecker in Georgia is Statewide, however the largest population occurs throughout the Coastal Plain and in Southwest Georgia. Nest site selection is restricted to mature or overmature pines which are infected with red heart disease. Red heart disease characteristically affects trees from 40-89 years old.
The primary limiting factor of red-cockaded woodpeckers is the presence of suitable nest and roost trees. Cutting of large, mature pine stands is detrimental to the birds' survival. These critical nest trees have often been the victims of industrial economics, however many timber companies are now beginning to recognize habitat needs and are managing appropriately.



KIRTLAND'S WARBLER — *(Dendroica kirtlandii)*
Status — Endangered (below)
Breeds in Northern Michigan and passes through Georgia during migration to the Bahamas. Migration primarily along our coast. Recent observations are scarce. Limiting factors in wintering grounds are unclear at this time. Availability of sufficient amounts of nesting habitat and parasitism of cowbirds are definite limiting factors on breeding areas.

BACHMAN'S WARBLER — *(Vermivora bachmanii)*
Status — Endangered
Formerly this warbler was a breeding resident in the Savannah area, however now is considered a very rare transient of the coastal region. The only definite breeding records goes back to June 24, 1908, near Savannah. Knowledge of this species present breeding or distribution is non-existent, due to the infrequency of observation. Past records indicate a preference for heavily timbered swamps. Although no definite limiting factors are known, the harvest of most of the virgin bottomlands throughout the Southeast is thought to be responsible for population declines. Elimination of this very specialized habitat type undoubtedly contributed heavily to this species downward population trend.

INDIANA BAT — *(Myotis sodalis)*
Status — Endangered (above)
The known range of the Indiana bat centers around Dade County in the Northwest corner of the State, where the species has been observed on several occasions. Other caves in the Northern region of the State offer potentially good habitat for the species and may support previously undiscovered populations.
Wintering populations usually are associated with major cavernous limestone regions. Knowledge of this species summer habitat is negligible.
Major reasons for population declines include: commercialization of roost caves, wanton destruction by vandals, disturbances by humans, disturbance from bat banders, use of specimens for laboratory use, and possibly insecticide poisoning.

GRAY BAT — *(Myotis grisescens)*
Status — Endangered
This species has been collected only from Clarke and Polk Counties in Georgia. It is known primarily from the limestone cave regions where it congregates in both summer and winter.
Excessive human disturbance, commercialization of caves, and vandalism have contributed to population reductions.

GEORGIA BLIND CAVE SALAMANDER — *(Haideotriton wallacei)* Carr
Known from a 200 foot well in Dougherty County and also from Decatur County. Habitat consists of subterranean waters of the upland limestone karst system, apparently restricted to the Dougherty Plain Region in Georgia.
Subterranean habitats are vulnerable to chemical and [illegible] pollution, recreational development, and ex[illegible] collecting. This Genus is known to be utilized [illegible]ly in the pet trade.

SHERMAN'S POCKET GOPHER — *(Geomys fontanelus)* Sherman
Status — Endangered
Very little is known regarding the distribution of t[illegible] small rodent. Specimens have been found in a v[illegible] small area near Savannah, occurring in fine, san[illegible] soils. Reasons for the decline of this species is [illegible] known. No recent observations have been record[illegible] This species could possibly be extinct.

COLONIAL POCKET GOPHER — *(Geomys colon[illegible]* Bangs
Status — Endangered
Another small rodent, the present distribution of wh[illegible] is not known. Specimens have been taken only fr[illegible] Camden County. Former distribution was thought [illegible] include only about 12 square miles of habitat [illegible] Camden County. Recent observations of this spec[illegible] are absent.
Reasons for the species decline in numbers are uncle[illegible] however probably would include destruction of hab[illegible] by clearcutting, and genetic problems that occur in sn[illegible] populations with limited geographic range.

RIGHT WHALE — *(Eubalaena glacialis)*
HUMPBACK WHALE — *(Megaptera novaeangliae)*
Status — Endangered
Both species occur only rarely off our coast. Over exp[illegible] tation by man appears to be the primary reason [illegible] declining whale numbers. Since these species know[illegible] national boundaries, regulation of harvest depends [illegible] tirely on international cooperation. Whaling is a luc[illegible] tive industry in certain countries and regulation of [illegible] harvest has been difficult.

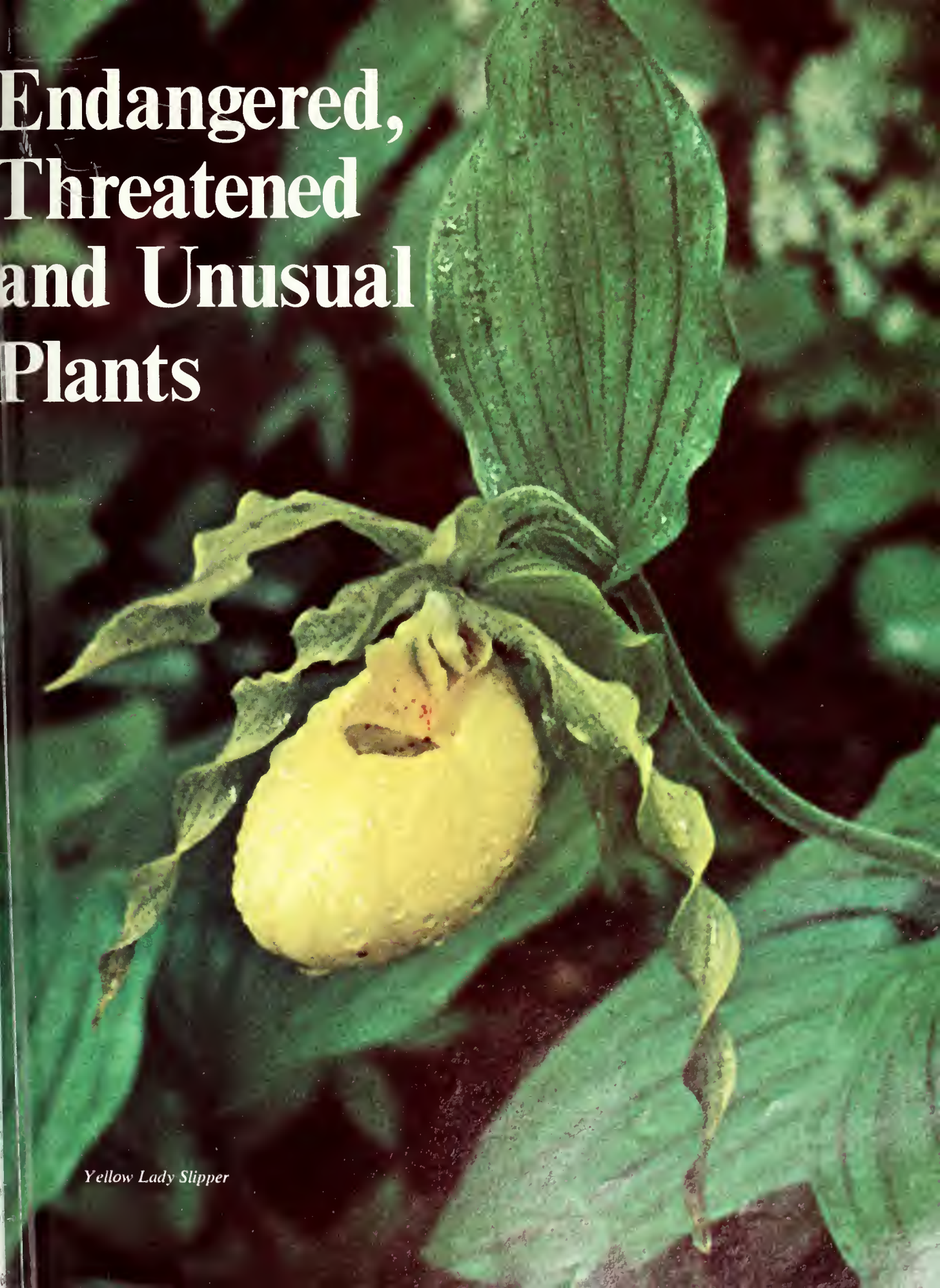
WEST INDIAN (FLORIDA) MANATEE — *(Trichechus manatus)*
Status — Endangered
Manatees (sea cows) utilize our coastal rivers [illegible] streams during spring and summer migrations, howe[illegible] breeding occurs in Florida. Preferred habitat inclu[illegible] sluggish, moderately turbid rivers, sheltered marine b[illegible] and shallow estuaries. Sufficient plant material is [illegible] quired, however the manatee eats almost any aqu[illegible] plant and many reachable terrestrials. Several reas[illegible] for population declines have been noted including [illegible] cessive harvest in earlier times, mortality caused [illegible] propellers of power boats, vandalism, and habitat [illegible] struction. With an expanding human population [illegible] coastal areas manatees are expected to decrease.

SOUTHERN CAVE FISH *(Typhlichthys subterraneus)*
Status — Endangered
Range includes caves in NW Georgia. Occurs in s[illegible] terranean habitats which are very fragile. Adverse [illegible] pacts include: pollution, development and over coll[illegible] ing.

—*Ron O[illegible]*

Photos courtesy U.S. Fish and Wildlife Ser[illegible]

Endangered, Threatened and Unusual Plants



Yellow Lady Slipper

Protected Plants List

Photos Courtesy:
Mr. and Mrs. Leo T. Barber, Jr.
Dr. Wilbur Duncan, University of Georgia
Dr. Dan Pittillo, Western Carolina University
Dr. B. J. Jackson
U.S. Forest Service
Natural Areas Unit, DNR

The plant species listed are those which are n
officially designated as "protected species" under auth
ity of The Wildflower Preservation Act of 1973. T
term "protected species" includes the classifications
dangered, threatened, rare and *unusual* as previou
defined.

In most instances, the plants which are listed requ
very specialized individual growing conditions. So
growing conditions are so specialized that they h
not yet been completely defined. Generally speak
these plant species are affected by pressures which u
mately deny the species some component of it's s
cialized growing conditions, thus resulting in a loss
habitat. Clearly, loss of habitat is the greatest sin
factor endangering theses species of plants. Other spe
listed are able to grow in a variety of habitats but su
the irony of being unusually beautiful or valuable f
medicinal purposes. These species have become e
dangered as a result of extensive and careless collect
Still others of these species suffer the pressures of b
habitat loss and extensive collection.

The list of protected plants is presented in an effo
stimulate interest in the future existence of these pla
Each species is listed by scientific name, followed by
common name, a very general and brief descriptio
its habitat, and in parenthesis the geographic prov
of the state where the plant is found. It is impract
here to attempt to elaborate the specific problems a
sociated with each species. The list is not intende
be a static cultural symbol or a showcase of stra
and beautiful creatures. It will be dynamic in that w
the status of a species is found to be changing in
state that status will be reflected by changing the spe
classification on the list. Public notice will be m
whenever additions to, deletions from, or changes in t
list are proposed. The procedures detailed in the *Ru
and Regulations for the Protection of Endange
Threatened, Rare, or Unusual Species* (Georgia
partment of Natural Resources Regulations 391-4-
will be followed.

Elliottia

Endangered Plants:
Amphianthus pusillus Torrey: **Amphianthus**
Pools in depression in granite rocks (Piedmont)
Balduina atropurpurea (Nuttall) Harper: **Balduina**
Bogs, moist pine barrens and savannahs (lower Coastal Plain)
Baptisia arachnifera Dunean: **Hairy Wild-Indigo**
Sandy pinelands (lower Coastal Plain)
Camelia thornei Cronquist: **Buckthorn**
Dry pinelands and sandhills (Coastal Plain)
Croton elliottii Chapm.: **Croton**
Pinelands (Coastal Plain)
Draba aprica Beadle: **Draba**
Dry soils (Upper Piedmont)
Elliottia racemosa Muhl: **Elliottia**
Hammoeks and near bluffs (Coastal Plain and Southwest Piedmont)
Fimbristylis perpusilla Vahl: **Fimbristylis**
Pond margins (Western Coastal Plain)
Gentiana deloachii (W. Plemmon) Shinners: **Gentian**
Habitat type and range undetermined
Hydrastis canadensis L.: **Golden Seal**
Rich woods (Blue Ridge)
Hymenocallis coronaria (LeConte) Kunth: **Spider Lily**
Brackish marshes, low woods and swamp forests (Coastal Plain)
Jeffersonia diphylla (L.) Persoon: **Twinleaf**
Local moist woods with caleareous soils (Northwest Piedmont)
Lysimachia saxicola M. A. Curtis: **False Pimpernel**
Rocks in streams (Tallulah River)
Marshallia mohri Beadie & Boynton: **Marshallia**
Variety of damp habitats (Ridge and Valley)
Panicum hirstii L.: **Panic Grass**
Habitat type and range undetermined
Paronychia rugelii var. *interior* Shuttlew: **Paronychia**
Habitat type and range undetermined
Potentilla tridentata Aiton: **Three-toothed Cinquefoil**
Rocky areviees and mountain balds (Ridge and Valley)
Pycnanthemum curvipes Green: **Horse-mint**
Habitat type and range undetermined
Rhexia parviflora Chapm.: **Small Flowered Meadow-Beauty**
Wet sandy soils (Western Coastal Plain)
Salix floridana Chapm.: **Willow**
Roeky shores and stream beds (Coastal Plain)
Sarracenia oreophila (Kearn.) Wherry: **Pitcher-plant**
Bogs and low wet plaees (Ridge and Valley)
Sarracenia purpurea L.: **Flytrap Pitcher-plant**
Bogs and low wet plaees (Coastal Plain and eastern Blue Ridge)
Sarracenia rubra Walter: **Sweet Pitcher-plant**
Bogs and low savannahs (Coastal Plain)
Shortia galacifolia var. *galacifolia* T&G: **Shortia**
Rieh mountain woods (Eastern Blue Ridge)
Silene polypetala (Walt.) Fern & Sehubert: **Pink Campion**
Hillsides or rieh deeiduous woods (Central West Georgia)
Torreya taxifolia (Arn) Green: **Stinking Cedar**

Sweet Pitcher Plant

Pink Campion

Bluffs (Lake Seminole)
Trientalis borealis Raf.: **American Starflower**
Humus soil in wooded ravines (Blue Ridge)
Trillium persistens Duncan: **Persistent Trillium**
Rich woods (Tallulah and Tugalo River Systems)
Veratrum woodii Robbins: **Wood's False Hellebore**
Woodlands (Blue Ridge and Ridge and Valley)
Viburnum bracteatum Rehder: **Arrow-weed**
Wooded Cliffs (Ridge and Valley)

Threatened Plants

Arabis georgiana Harper: **Arabis**
Shaded riverbanks (Ridge and Valley)
Asplenium heteroresiliens Wagner: **Spleenwort**
Limestone outcrops (Coastal Plain)
Aureolaria patula (Chapm.) Pennell: **Aureolaria**
Wooded river bluffs (Ridge and Valley)
Brickellia cordifolia Ell.: **Brickellia**
Habitat type and range undetermined
Cacalia diversifolia T&G: **Cacalia**
Swamps (Western Coastal Plain)
Calamintha dentatum Chapm.: **Calamintha**
Habitat type and range undetermined
Carex amplisquama F. J. Herman: **Carex**
Habitat type and range undetermined
Carex biltmoreana Mackenzie: **Carex**
Rocky places at high elevations (Blue Ridge)
Carex misera Buckley: **Carex**
Crevices in rock cliffs (Eastern Blue Ridge)
Carex purpurifera Mackenzie: **Carex**
Rich woods (Blue Ridge and Ridge and Valley)
Croomia pauciflora (Nutt.) Torr.: **Croomia**
Rich ravines (Western Coastal Plain)
Ctenium floridanum Hitchcock: **Toothache Grass**
[illegible]nnahs and fresh marshes (Eastern Coastal Plain)
[illegible] *harperi* Small: **Cuscuta**
Parasite on low herbs (Blue Ridge)
Cyperus granitophilus L.: **Sedge**
Habitat type and range undetermined
Dicerandra odoratissima Harper: **Dicerandra**
Sandy soils in thin woods (Lower Coastal Plain)
Echinacea laevigata (Boynton & Beadle) Blake: **Coneflower**
Fields and thin woods (Eastern Blue Ridge)
Fothergilla gardenii Murray: **Witch-alder**
Pocosins and savannahs (Coastal Plain)
Hartwrightia floridana A. Gray: **Hartwrightia**
Swamps and marshes (Coastal Plain)
Ilex amelanchier M. A. Curtis: **Swamp Holly**
Swamps, stream banks and cypress ponds (Lower Coastal Plain)
Isoetes flaccida Shuttlew: **Quillwort**
Streambeds (Lower Coastal Plain)
Isoetes melanspora Engelm: **Quillwort**
Depressions in granite outcrops (Central Piedmont)
Isoetes virginica N. E. Pfeiffer: **Quillwort**
Temporary ponds on granite; beds of sluggish strear
(Piedmont and Coastal Plain)

Persistent Trillium

Lachnocaulon beyrichianum Sporleder: **Bog Buttons**
Wet sands or peat (Eastern Coastal Plain)
Leavenworthia exigua var. *exigua* Rollins: **Leavenworthia**
Shallow soils of cedar glades (Ridge and Valley)
Linum sulcatum var. *harperi* Riddell: **Linum**
Dry basic soils in the open (Piedmont and Coastal Plain)
Litsea aestivalis (L.) Fernald: **Pond Spice**
Swamp margins; low wet woodlands (Coastal Plain)
Lythrum curtissii Fernald: **Loosestrife**
Muddy calcareous swamps (Coastal Plain)
Marshallia ramosa Beadle & Boynton: **Narrow-leaf Marshallia**
Pine-barrens (Coastal Plain)

Muhlenbergia torreyana (Schult) Hitchc.: **Muhly**
Habitat type and range undetermined
Myriophyllum laxum Shuttlew ex Chapman: **Water-Milfoil**
Banks and pools (Coastal Plain)
Nestronia umbellula Raf.: **Nestronia**
Open woods (Piedmont and Coastal Plain)
Oxypolis canbyi (C&R) Fernald: **Oxypolis**
Habitat type and range undetermined
Panicum lithophilum Swallen: **Panic Grass**
Granite outcrops (Piedmont)
Penstemon dissectus Mitchell: **Penstemon**
Thin soil on rocks (Coastal Plain)
Phacelia dubia var. *georgiana* (L.) Trelease: **Phacelia**
Varied habitats (Coastal Plain)
Physostegia veronicaformis Small: **Physostegia**
Bogs grounds and depressions (Coastal Plain)
Pieris phillyreaefolia Hook: **Climbing Heath**
Stumps and bases of cypress trees (Coastal Plain)

Climbing Heath

Pinckneya pubens Michx.: **Georgia Feverbark**
Low woods (Coastal Plain)
Platanthera peramoena A. Gray: **Pink-Fringed Orchid**
Meadows and stream banks (Blue Ridge)
Portulaca smallii P. Wilson: **Portulaca**
Granite outcrops (Piedmont)
Ptilimnium nodosum (Rose) Mathais: **Ptilimnium**
Savannahs and wet ditches (Coastal Plain)
Quercus georgiana M. A. Curtis: **Georgia Oak**
Granite outcrops (Piedmont)
Quercus oglethorpensis Duncan: **Oglethorpe Oak**
Flat woods (Piedmont)
Rhapidophyllum hystrix (Fraser) H. Wendl.: **Needle Palm**
Ravines and limesinks (Coastal Plain)
Rhododendron austrinum Rehr.: **Florida Azalea**
Cedar woods (Eastern Coastal Plain)
Rhododendron prunifolium (Small) Millais: **Plumleaf Azalea**
Varied woodland habitats (Eastern Coastal Plain)

Pink Lady-slipper

Rhynchospora culixa Gale: **Beak Rush**
Habitat type and range undetermined
Rhynchospora globularis var. *saxicola* (Small) KuKenth: **Beak Rush**
Pineland (Coastal Plain)
Rhynchospora punctata Ell.: **Beak Rush**
Habitat type and range undetermined
Rudbeckia heliopsidis T&G: **Black-eyed Susan**
Woodlands and meadows (Coastal Plain)
Sarracenia sp. (all resident Pitcher-plants)
Bogs, savannahs and wet open places (scattered statewide)
Schisandra glabra (Brickell) Rheder: **Schisandra**
Rich woods (Piedmont)
Schizachyrium niveum unknown: **Schizachyrium**
Habitat type and range undetermined
Scutellaria montana Chapm.: **Skullcap**
Deciduous woods (Blue Ridge, Ridge and Valley)
Sedum pusillum Michx.: **Stonecrop**
Granite outcrops (Piedmont)
Senecio millefolium T&G: **Ragwort**
Edges of rock outcrops (Eastern Blue Ridge)
Smilax leptanthera Pennell: **Greenbrier**
Varied wooded habitats (Piedmont)
Sporobolus tereifolius Harper: **Wire-leaf Drop-seed**
Savannahs (Coastal Plain)
Talinum mengesii W. Wolf: **Talinum**
Dry sandstone or granite outcrops (Central Piedmont)
Thalictrum debile Buckl.: **Meadow Rue**
Rich woods (Coastal Plain)
Veronia pulchella Small: **Veronia**
Sandy scrub and pineland (Eastern Coastal Plain)
Viguiera porteri (A. Gray) Blake: **Viguiera**
Granite outcrops (Piedmont)
Waldsteinia lobata (Baldw.) T&G: **Barren Strawberry**
Rich woods (Piedmont and Blue Ridge)
Xyris scabrifolia Harper: **Yellow-eyed Grass**
Bogs and wet depressions (Coastal Plain)

Unusual Plants

Cypripedum acaule Aiton: **Pink Lady-slipper**
Variety of forest habitats (Blue Ridge)
Cypripedum calceolus (Willd) Correll: **Yellow Lady-slipper**
Variety of forest habitats (Upper Piedmont and Blue Ridge)

—Jerry McCollum

Realities of Endangered Species Management

Photo courtesy of Mr. and Mrs. Leo T. Barber, Jr. and U.S. Fish and Wildlife Service

State endangered species legislation is new to Georgi as is the resulting endangered species program. Th federal government, on the other hand has been a tively involved with the conservation of endanger species since 1966 when the Endangered Species Pre ervation Act was passed by Congress. This Act requir federal listing of endangered wildlife and publicati of such lists. The Act also authorized the federal go ernment to conduct research and acquire habitat f listed species.

In 1969, the Endangered Species Conservation A went several steps further in that the Act broadened t concept of endangered species to include all vertebrate mollusks, and crustaceans. This Act also allowed co sideration of sub-species, authorized acquisition of wate as well as land, increased funding for land acquisitio and provided for the conservation of foreign wildlife

The 1973 Endangered Species Act further broaden the program to include endangered plants and far mo importantly to embrace the concept of preservation ecosystems on which endangered wildlife and plants de pend, rather than focusing on individual species. Equa significant was Section 7 of the Act, which provid funding for Federal-State Endangered species cooperati agreements. This in effect said that any state which m federal standards would be eligible for partial fede funding for their endangered species efforts. This th oretically would provide the stimulus necessary t active state involvement in resident endangered spec management. Realistically however, limited funding h only recently been made available by the federal go ernment and many states have been unable to m rigid federal standards.

State endangered species legislation was enacted i 1973 with the passage of the Endangered Wildlife A and the Wildflower Preservation Act. Both of th Acts directed the Department of Natural Resources t inventory and list all endangered, threatened, rare unusual plants and animals in the state. These acts a authorize the Department to develop rules and regu tions necessary to protect these species.

Rules and regulations for the protection of end gered, threatened, rare or unusual species have be approved by the Board of Natural Resources, along w th

e state list of endangered species. Some of the highhts of the rules and regulations are:

1) Provides criteria for determining an endangered species including
   —the present or threatened destruction, modification or curtailment of it's habitat;
   —over-utilization for commercial, sporting, scientific or educational purposes;
   —disease or predation;
   —the inadequacy of existing mechanisms;
   —other natural or man-made factors affecting it's continued existence.
2) Describes procedures for modifying the state "protected species" list. (A copy of these procedures can be obtained by writing: Endangered Species Project, Route 2, Social Circle, Georgia 30279.) Anyone may add or delete species from the list by providing sufficient data to justify any particular claim. Applications must be made in a form prescribed by the newly implemented regulations.
) Prohibits the harassment, capture, sale, killing or other action which directly causes death of any protected species.
) Prohibits the removal of a protected plant species from public lands without permit.
) Restricts sale of any protected plant species.
) Restricts transporting or conveying protected plant species without proper tagging and authorization.

The 1973 legislation (both state and federal) provd the impetus necessary for the initiation of a state dangered species program.

n May, 1974 an endangered species workshop conved at Fernbank Science Center in Atlanta, with the ntion of drawing up a "citizens list" of endangered, atened, rare and unusual species in Georgia. Exrts from all over the state convened at Fernbank to their knowledge into a meaningful list. This original was to be utilized by the Department of Natural Reees as a working list from which the official state would be selected as well as an object of continuing stigation to determine the status of those species which questions were raised as to the degree of enerment.

he current state program suffers from insufficient ing. Monies authorized by the 1973 Endangered cies Act have not been forthcoming. The Department itted an application for a cooperative agreement the Secretary of the Interior in April, 1975. Acng to the Secretary current state endangered species s do not meet federal standards and therefore the lication has not been accepted. Certain demands r the 1973 Act are blocking funding to the states more importantly, our efforts to conserve these led species.

ns for the coming year include an evaluation of habitat" throughout the state as well as the con g investigations of species placed on the "citizens t the Fernbank Conference.

West Indian (Florida) Manatee

A meaningful and comprehensive program, which will truly have an impact on our endangered species will be expensive. The federal government recognized this when it passed the Endangered Species Act of 1973. The states are becoming more aware of this fact now. Efforts to fund non-game endangered species programs in other states with voluntary contributions or through the sale of stamps have not been encouraging. California uses funds collected from the sale of prestige auto tags to support their non-game program. Other states have experimented with taxes on soft drink bottles. Taxes on recreational equipment have been proposed and are being seriously considered. All of these methods have one thing in common—they strive for monetary support from *all people* who utilize our natural resources.

Hunters have been extremely successful in the restoration and management of game species through the purchase of hunting licenses and excise taxes on equipment. It should be pointed out that some of the sportsmen's dollar also has gone into endangered species/non-game efforts. If we are to deal with the non-game/endangered species resource as successfully as game managers have dealt with game species, then all of the users must share the bill, including hunters and non-hunters. Non-hunters and preservationists must realize that being vocal is not enough, and that they too, must be willing, as the hunter has, to reach into their wallets and support the resources which they utilize and enjoy. Only then can we expect to have a meaningful program which can realistically deal with the complex problems of the endangered species non-game resource.

—Ron Odom and Jerry McCollum

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BACK COVER: An autumn sunrise. Photo by Bob Busby.

MAGAZINE STAFF
Phone—656-5660

David Cranshaw · Editor-in-Chief
Bill Morehead . . . . . Editor

Aaron Poss . . . . . Managing Editor
Rebecca N. Marshall . . . . . Writer
Dick Davis . . . . . Writer
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Susan Wood . . . . . Writer

Liz Cormichael Jones . . . Art Director
Mike Nunn . . . . . Illustrator
Bob Busby . . . . . Photo Editor
Edword Brock . . . . . Photographer
Bill Bryant . . . . . Photographer
Jim Couch . . . . . Photographer

Priscillo C. Powell . Circulation Manager

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t's the Law

ast February the Georgia Supreme Court
d that the state's beaches and marshlands
ng to the state's people, to be held in trust
them by the state. And as we've said before,
decision is the best good news we've heard
uite some time.

mong the lasting values arising from this
sion is the one giving all Georgians the right
se that beach area from the high water mark
ie sea. But that's where it stops—at the high
r mark. Private citizens or groups may well
the property above the high water mark . . .
as citizens, they have their rights.

ne of the rights provides for the enjoyment
ivately owned land. This individual right is
sionally being violated by some persons who
essly make their way to the public part of
each. While it is ethically and legally right
the beaches belong to the public, it is also
ally and legally proper that private property
be respected.

Beachfront property owners are often at the mercy of the public. Their options in protecting what is rightfully theirs are few. Nobody wants to put up ugly barbed wire fences or erect unsightly "No Trespassing" signs on private lots next to Georgia's magnificent foreshore.

We'd like to remind those who enjoy our publicly-held beaches that consideration of the rights of others is one of the more admirable virtues. There's plenty of public access to Georgia beaches. Nobody's rights need to be trampled by anyone heading for them.

Let us repeat that our beaches, held in trust for the people of Georgia, are for the enjoyment of everyone. And that includes those Georgians who own property fronting on the beach.

David Crenshaw

Crooked River Sta

A Park for All Seasons

By Jingle Davis

Photos by Jim Couch, Tony Kinder and Author

It had to be the coldest day of the winter. A sharp wind was knifing across the marshes of Camden County, turning the olive waters of Crooked River to wrinkled gray elephant skin. The pine trees lining the high bluff of Crooked River State Park bent like limber dancers toward the line of rustic riverfront cabins. I turned up the heater of my car and drove slowly around the park, looking in vain for signs of vacationers enjoying themselves.

I'd visited the park in summertime, when the olympic-size pool, the camp sites and picnic tables brimmed over with people; small motor boats dashed up and down the river, joyriding, pulling skiers or heading for a favorite fishing drop.

But Park Superintendent Jerry Minchew had told me that, while Crooked River State Park is a popular summertime recreation area, each year more and more visitors discover the park's winter assets.

I drove down to the park's boat ramp and dock and parked next to a pickup truck, thinking about hardy folk such as park superintendents who are apparently equipped with subdermal insulation and never seem to notice near-freezing temperatures and biting nor'easters.

Surely no average vacationer finds the park enjoyable on such a day. Too cold for swimming; too windy to picnic; too rough for boating. Absolutely nothing to do—I thought.

Although I'd already decided I wouldn't be writing a story extolling the wintertime virtues of Crooked River State Park, I admired the natural beauty of the area. Giant live oaks hunched protectively over the park's public buildings and cabins; even now, when south Georgia trees were leafless and barren, the park sported lush greenery.

Shell drives curved through the trees, and nature trails —carpeted with fragrant pine needles—led back into the deep woods. All of the cabins overlook the river; the newer ones so neatly tucked away into the woods as to seem a part of the landscape.

Named for the winding river which forms its eastern boundary, the 500-acre park sits on a high wooded bluff overlooking the river and the broad fields of marshgrass, purple-gold in winter. I could see Cumberland Island National Seashore, stretching its 18 mile length against the horizon in the misty distance. Cumberland reminded me that Crooked River State Park is only a few miles from the charming riverfront town of St. Marys, which serves as the point of departure for the magnificent National Seashore. The state park, I decided, would be an ideal base of operations for visitors who wanted to ex-

plore St. Marys' historic sites and lovely old buildings or to take the boat to Cumberland for the day. Winter is a good time for such activities, for crowds are smaller and reservations on the Park Service boat are usually no problem. I chalked up one wintertime plus for the state park.

I heard the drone of a small boat heading upriver, and, buttoning my coat more tightly, I climbed out of the car and walked to the dock to see what sort of people would be boating on such a day. Although the wind was brisk, the waters of the river are relatively sheltered, and the boat had no problem negotiating the light chop as it pulled up to the dock.

I expected to see a crusty old fishermen climb out; instead, a young couple with two children began unloading gear on the dock. I wandered down the ramp to see if they'd had a nice boat trip.

The nine or ten year old boy grinned at my question. "We had a great time! Look at all the fish we caught!" He slid back the lid of a cooler to show me a half-bushel of speckled sea trout.

"I thought it was too windy to fish," I said, amazed by their catch. "It must be freezing out there on the river."

The father explained that they'd found plenty of sheltered riverbends where they'd anchored out of the wind. "I even got a suntan," his young daughter said, pulling up her pants leg to exhibit a band of newly-pink skin.

Later, talking to Jerry Minchew, I learned that 10 or 11 boats left from the park that morning, and all had come in with large catches of bass, trout or flounder. Jerry said winter fishing is even better when the wind isn't so strong, but no one complained that day.

Jerry told me the channel bass congregate in Crooked River in early spring, before hot summer days warm the river water. "We have lots of regulars who come to spend a week or so at the park in March, April and May, during the bass season," Jerry said.

Hunters arrive in fall and winter months to take advantage of the thousands of acres of tidal marsh and timberland around the park which are open to the public during hunting seasons. "Crooked River State Park has the closest camping and cabin facilities to more than 70,000 acres of privately-owned timberland," Jerry commented. "This land is opened for deer and small game hunting, and the wetlands near the park are considered ideal for marsh hen (clapper rail) and duck hunting." Firearms are not allowed at any state park, but Jerry said that hunters could check their weapons with him while inside the park boundaries.

It seldom snows in southeast Georgia, and even nighttime temperatures rarely dip below the freezing point, so bird and wildlife watchers can find plenty of activity. All wildlife in the park is protected, and visitors frequ ntly spot deer moving shyly through the trees near the cabins. The raccoons, opossums and armadillo are [illegible] making far-from-silent night raids on garbage [illegible] park lies on the Atlantic Flyway, and huge

skeins of ducks pass over during migration seasons.

While most wildlife is abundant at the park dur[illegible] winter months, insects are usually absent in colder wea[illegible] er—a definite plus factor for the park.

It dawned on me that if Crooked River visitors fou[illegible] so much to do on the winter's coldest day, then on bet[illegible] winter days, the enjoyment level would rise in proport[illegible] to the temperature.

There are 11 completely equipped cottages at Crook[illegible] River State Park; visitors need only bring clothes, p[illegible] sonal gear and food. The cabins rent for $14 daily [illegible] two people, with a $2 charge for each additional pers[illegible] over 12 years old; $1 for children under 12. All cab[illegible] have fireplaces, an especially appealing asset on cr[illegible] winter evenings. (Cabins also have central heat and [illegible] conditioning.)

There are two camping areas with a total of 76 can[illegible] sites, all with water and electrical hookups. Camp si[illegible] have adjacent hot showers, bathrooms and a dump[illegible] station, and rent for $3 a night.

Crooked River State Park is located on Ga. Spur [illegible] easily accessible from Interstate 95 or U.S. Highway [illegible] The park is open from 7 a.m. until 10 p.m. for d[illegible] visitors.

Dawson Forest Wildlife Management Area

By Dick Davis

Photos by Aaron Pass

Georgia's hunters and fisherm
have another close-at-hand area f
the sports of field, forest and strea

Ten thousand additional acres
prime hunting and fishing land ha
been added to state-operated are
already available to the sportsm
of Georgia.

The Game and Fish Divisi
has established near Dawsonville i
Dawson County the 65th Wildl
Management Area now in operati
by the Division statewide.

Encompassing some of the m
promising game management ac
in the region, the newly-establish
Dawson Forest WMA is being
veloped on the former site of Lo
heed Aircraft Corporation's nucl
operations.

Spreading across the pictures
upper Piedmont Plateau and so
of the foothills of the Blue Ri
range, the scenic, rolling terrain
the wildlife management area p
vides excellent habitat for most of
big game and small game species
Georgia wildlife. A variety of natu
foods for wildlife are believed ca
ble of supporting a high density ga
population, with excellent bala
between the species.

The topography of the Daws
tract varies from pine ridges to flo

ain and hardwood bottoms. Old omesites on the area afford special eding for game and these homesites ll be retained to provide these vorable game-supporting character- ics.

The game roster of the Dawson MA includes white-tailed deer, ar, wild turkey, cottontail rabbit, amp rabbit, squirrel, quail, dove, odcock, wood duck, mallard, teal, beat, opossum, raccoon and fox. ith the exception of bear and tur- y, all are present in huntable num- rs on the management area. The a will be stocked with additional wild turkey when birds for stocking become available from another wildlife management area.

Challenging angling is offered at many points on the Dawson WMA as the Etowah River, Amicalola Creek and Shoal Creek weave through the forest of the WMA. Amicalola Creek from the northwest and Shoal Creek from the northeast tumble south into their confluence with the Etowah as it bisects the management area.

Good catches of largemouth bass, catfish, yellow perch, bream, coosa bass, warmouth, redbreast, sunfish and white bass can be made from the river and the streams. All waters within the management area will be managed by the Game and Fish Division for sport fishing.

Establishment of the Dawson Wildlife Management Area represents another project in the continuing efforts of the Department of Natural Resources to provide areas for outdoor recreation in proximity to the population centers of the state.

White oak, hickory, northern red oak, sumac, smilax, honeysuckle and other deer foods abound on the area. For turkey there is a good supply of ground insects, grubs, ground

plants and other foods.

Extensive hardwood stands on WMA provide good mast crops fo burgeoning population of grey sq rels.

There are plans for 100 acres food plots to be planted on the m agement area within the first sev years. Most food plots will be fr one to two acres in size. These pla ings will be in corn, brown top mi cowpeas, fescue and rye grass will be strategically spotted throu out the 10,000 acre tract. These p pared food plots will supplement many openings already on the are

The entire game management a is now closed to the public until first managed hunt in November. WMA boundaries are marked there are locked gates at all road entrances.

A Check Station will be c structed and utilized as a field of on the area.

All game and fish laws, rules regulations that apply to mana ment areas are being enforced on land and water within the area.

Hunts on the new managen area will be: Deer—buck onl November 22-27, 1976; small g October 15-November 28, 1976 Wednesdays, Fridays and Saturd only; and racoon, October 15-Ja ary 31, 1977, on Saturday ni only.

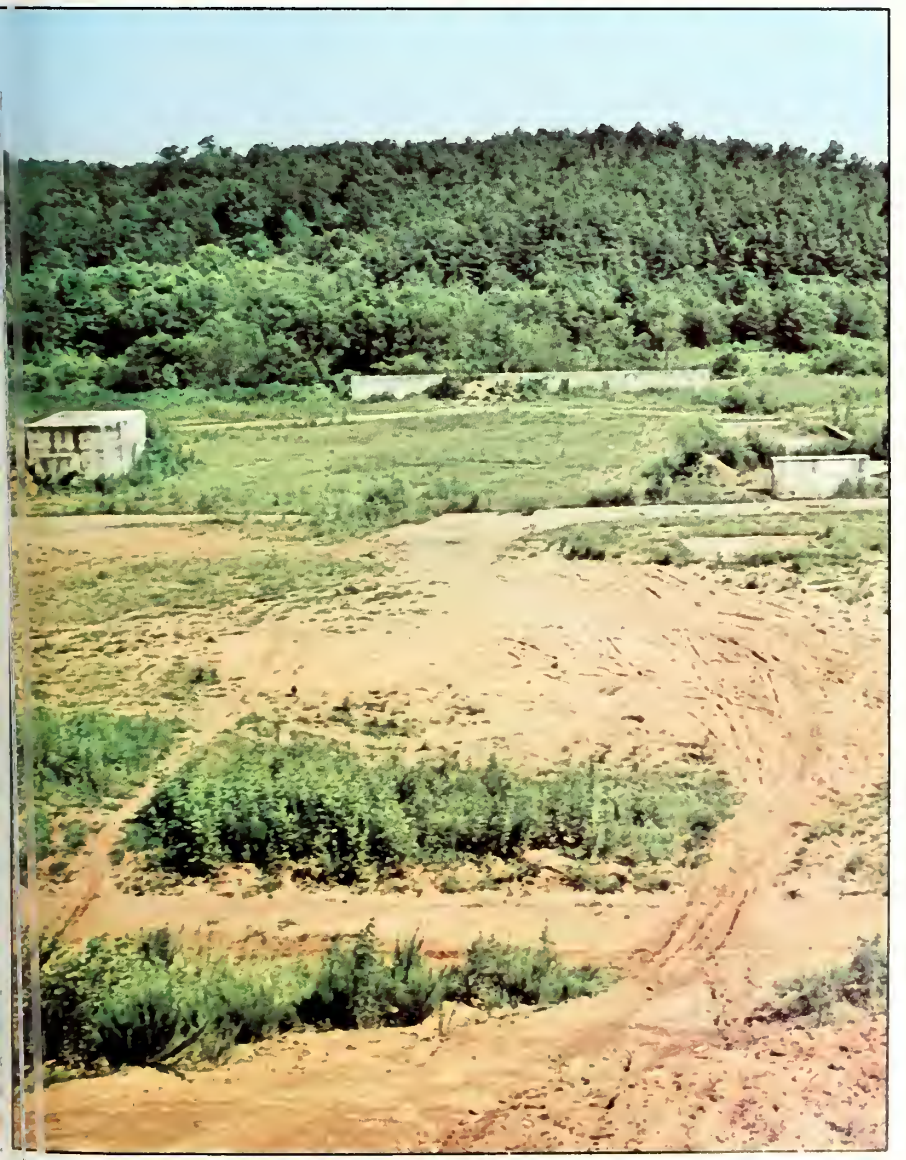
No permit is required to h small game on the Dawson Fo during established seasons, and f small game no check-in or check is required. Persons hunting must check in at the Check Sta and obtain a $5.00 permit. Du managed hunts primitive camp will be allowed throughout muel the management area.

Some timber stands on the W are being control burned by t Georgia Forestry Commission wh manages the Dawson Forest for ber production on contract from t City of Atlanta, owner of the tr New undergrowth following the c trol burning adds to the food sup for game. The cooperative effort the Game and Fish Division,

The Etowah River, which bisects Dawson WMA, provides good fishing for a variety of warmwater game fish. (Photo at far left)

This natural mineral lick shows extensive utilization by the area's deer population. (at left)

Resembling the ruins of a lost city, the abandoned reactor site provides a wildlife opening in the forested area. (below)



partment of Natural Resources, and the Georgia Forestry Commission on the WMA brings to reality the union of timber management and wildlife management.

Waterfowl management is to be an integral part of the game management activity on the WMA. Draw-down ponds are to be constructed where areas of millet and corn can be flooded for waterfowl usage. Greentree reservoirs are also being established through the winter flooding of hardwood coves, to provide feeding and resting places for migrating waterfowl. A large number of wood duck boxes are being erected on the management area.

The new Dawson Forest Wildlife Management Area can be reached by proceeding south from Dawsonville on U.S. Highway 19 approximately five miles and turning west on the old Lockheed Road for approximately one-half mile to the entrance of the WMA. The area is within two hours driving time from the Atlanta metro area. From Atlanta, the area is accessible by proceeding north on Georgia 400 to Cumming, and north on U.S. 19 approximately 15 miles to the junction of the old Lockheed Road.

From Gainesville the WMA can be quickly reached by traveling north on Georgia Highway 53 to the junction with Georgia 318, and proceeding west on Highway 318 direct to the entrance of the management area.

Outdoors in Georgia's

Southeastern Wildlife Art Exhibit

October 21-24, 1976
Perimeter Mall
Atlanta, Georgia

Original wildlife paintings, sketches, sculpture and photography exhibited in the mall.

Why Quota Hunts?

By Terry Kile

Many Georgia sportsmen view the computerized quota hunt system in terms of, "the joy of sueeess or agony of defeat." Naturally, perspective makes the difference. The initial success is reeeiving a "seleetion notiee" in the mail. On the other hand, agony is reeeiving the rejection notice. An event which seems to stimulate wrathful and most un-Christian-like utterances from the lips of many. Most of these eolorful eomments are aimed directly at the Game and Fish Division, and often ask, with expletives deleted, "Why quotas?"

It is a worthwhile question and one with a history. Many people do not realize that by the early 1900's Georgia had a depleted deer population. With advances in game management and funds from sporting taxes on sporting arms effective wildlife management programs were initiated. The deer restoration program was a beneficiary of these funds, and by 1952 the program was aehieving sueeess, as the state deer population had reached 35,000. Today, the deer population is estimated to be 350,000.

One factor in this sueeess was the areas ealled wildlife management areas today. These publie areas date

back to 1928 when the Forest Service and old Game and Fish Commission felt that refuge areas were needed so deer could be protected and managed. The Rock Creek Area was Georgia's first. Eventually, more refuges were added and their names were changed to "wildlife management areas." In 1940 the first managed deer hunt was conducted, and when 22 deer were taken, the program became an instant success.

By the middle 1960's the managed hunt concept had become so popular that long lines began developing as people waited to check-in on their favorite management [illegible]. The major factors which led to the popularity of [illegible] were unspoiled beauty of the land, a low number [illegible] and a reasonably good chance of successfully bagging a trophy buck. Sure, everyone wante to get a deer, but surveys indicated the greatest attra tion was aesthetics and the ability to find solitude aw from people. Unfortunately, as the demand for the areas grew, the very factors which attracted the peop were endangered. The landscape was deteriorating as result of overuse by people, and data began trickling which showed that a deer herd could be over-hunte unless control measures were initiated. Something ha to be done and the answer was obvious. A quota syste regulating the number of hunters was established. At t present time, the quota system is a restriction on t number of hunters who can use a particular public ar at any one time.

The first quota hunts provided for a certain numb of hunters to be checked in on a first-come, first-serv basis. Problems began immediately as long lines d veloped. There would be 1,000 hunters waiting in li to fill 400 openings. Patience grew thin when a ma found he was number 399 and had been waiting in li all night only to see several people break in line whe friends had saved a place. The man whose number w 399 became 402 and the "agonies of defeat" were di tributed in the form of knuckle sandwiches. Needless say, it was time for a new quota system.

The next requirement was that hunters fill out app cations for the hunts and send them to Game and Fi along with a $5 check. Permits were issued on a fir come basis and sent to the selected hunters. The syste was cumbersome and inefficient. Applications wou come in without the check, necessitating an exchange letters with the applicant. All too often claims were ma that the check had been sent. Questions which aro were, did the applicant really send the check, was t check stolen somewhere along the way, did Game a Fish lose this money? Control was impossible.

To make matters worse, a hunter who decided not use the permit could legally give it to his buddy. Wh this happened, scalping became fairly common. The $ permits were selling for as much as $50 apiece. Sor folks would have all their friends apply to increase t odds of getting selected, and they had the option of hun ing or making money or both.

In 1973 sophistication was added to the system; t computer drawing was implemented. This same syste is in effect today. Here is generally how it works. Ea hunter must fill out an application and send it to t Game and Fish Division. The application is inspect and numbered according to the time it was received. A the information is key punched on computer cards a stored. The actual drawing takes place in early Octob All the computer cards are run through the system a random selections are made for each hunt. Once a hunt is selected, his card is withdrawn until everyone has a chance to be drawn for the hunt of their choice. At t end of the selection process if the quotas on any hun s are left unfilled, the cards are resubmitted and those w applied for an unfilled hunt as a second or third choi get to try for a second permit. Then the computer prin s

all information on the selection and rejection notices and they are mailed. All people are notified of the outcome unless the instructions on the original applications were not followed causing the application to be incorrect.

The present quota selection system is not perfect. It will be subjected to continued study and refinement to improve its service. Compared to systems used in past years, the computer selection is by far superior in terms of efficiency and fairness.

The following questions (and answers) are typical of the queries about the quota system and are probably some you've asked yourself.

Q. Why do you need a quota?

A. When a particular piece of land gets over-crowded with people the quality of a hunting experience diminishes. This became obvious several years ago when a survey indicated that the reason many folks picked certain areas to hunt was to get away from people and enjoy nature in seclusion. In some cases a quota contributes to this type of quality hunting. From the biological point of view, either-sex hunting can lead to an over-kill. By using quotas we can keep a handle on the number of deer taken. Some states put the quota on deer and not hunters. This is the pure biological way to manage so that when the desired number of deer are taken the hunt is stopped. The concept is good, but it removes qualitative considerations. Quotas can also be used to control hunter density in a given area as a safety factor.

Q. How are quota hunts established?

A. There is no standard formula for establishing quotas. Generally speaking, the herd can be reduced by 25-30 percent without damaging the herd's breeding base. The population may even increase slightly the next year. Quotas combine biological necessity, safety considerations, man-power in our work force, recreational needs and desires of the landowner from whom the area is leased.

Q. Why aren't permits transferable?

A. This inevitably sets up scalping operations as not earlier. Also, a particular individual may get his frien to apply so he increases his chances for selection. Th distorts the odds and gives the unethical person an a vantage over honest hunters.

Q. What is done when quotas are not filled?

A. All quotas are filled or the area will eventually taken off the program.

Q. Many people get permits but do not go to the hun Why can't these permits be sold at the check station?

A. This would set the stage for unacceptable situa tions. For example, ten hunters may drive 300 miles f one permit. The hunter would rightfully call this inco venient and costly. There are also a number of hunte who do not wish to hunt on opening day. Can y imagine being selected for the Sapelo Island quota hu and for some reason not going until the second da Upon arrival you find that your permit was sold someone else because you did not show the day befo You must keep in mind that a quota is merely a *ma mum* acceptable number of hunters. Any number re sonably short of the maximum is acceptable. In order keep this figure reasonable, we calculated the avera number of people who do not show. Indications are th approximately 22 percent of these people with perm do not attend the hunts. We then take the maximum a cepted quota and add 22 percent. (Example: maximu quota, 500, 22 percent of 500 = 110, therefore, t quota would be set at 610.) This system is not foolpro but it works reasonably well.

Q. Do many people submit fraudulent applications an attempt to get more than one permit?

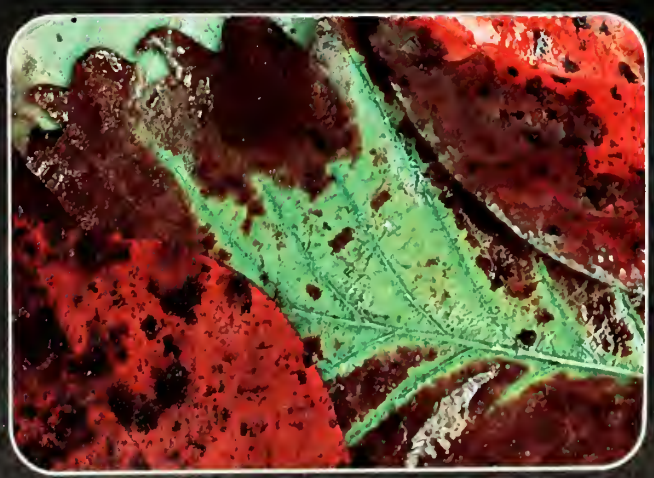
A. Inadvertent errors are common. Generally, y can submit only one application, but sometimes w meaning friends try to help by submitting an applicati for their buddy not realizing he sent his own two wee earlier. We end up with two applications from one ind vidual, and both are rejected. This is a harmless err and does not particularly concern us; however, falsifyi information on an application to try and "beat" the sy tem does concern us. Not only is this a violation of t law, but you can lose the privliege of hunting on pub areas. Here is one way you can get caught. The quo hunt permit must be turned in at the check station. T permit number is coded to a master sheet which has yo social security number, hunting license number, nam and address. You may be asked at the check station show identification in the form of a hunting license an driver's license. This information should match what on our master sheet or you have problems. We are business to see that you have a good time hunting help us help you by not breaking the law. Penalties ca be extremely stiff.

Hopefully, this article will help answer most questio on "Why quotas?" but any questions or suggestions yo have are welcomed. Just write to the Game and Fi Division, Game Management Section, 270 Washingto Street, S.W., Atlanta, Georgia 30334.

Season of the Warrior

Magnificent autumn! He comes not like a pilgrim, clad in russet weeds; not like a hermit, clad in gray; but like a warrior with the stain of blood on his brazen mail. His crimson scarf is rent; his scarlet banner dripping with gore; his step like a flail on the threshing floor.

—LONGFELLOW



Photography by Bob Busby

YCC

By Susan Wood

Photography by Bob Busby

There they are. Four or five in a oup. 20 or so in all, shoveling, dig-ng, planting, most wearing hard ts, some even wearing gloves, look-g for all the world much older than ir 16 or so years. For a while at st maybe they are, as they sweat, l and maybe even swear in the ult world of work.

These kids (a misnomer perhaps) part of the Youth Conservation rps—YCC for short—a federally-ded work-environmental educa-n program not at all akin to Job rps or related programs. For these ng people this is their summer l, and they know they're lucky to here. A joint endeavor of the ited States Departments of Interior l Agriculture, YCC camps are ttered throughout the nation. Fed-l camps are usually held on Na-al Park Service land and have n for several years, but they are being held this summer on U.S. est Service land in north Georgia. rty per cent of total federal funds t to states this year to set up local C camps. In Georgia the Depart-t of Natural Resources adminis-the local camps, providing guide-s and channeling funds.

n the YCC program students be-n 15 and 18 work 30 hours per k in conservation and environ-t-oriented projects chosen by the l camp directors. Participants t also attend 10 hours per week nvironmental education classes, erably in a lecture-participation-ect combination. Students are minimum wage for the 30 hours week they work. They're not for these 10 hours of class per .

ocal camps are jointly funded igh the two federal agencies and ocal authority involved, usually ls of education or parks and ation departments. Though the C Act, originally passed in 1970, that federal funds can finance ich as 80 per cent of a camp's t, DNR set up the local camps 50 per cent federal, 40 per cent l funds. In this way, allocated l money goes farther.

e eight week program runs from

mid-June to mid-August. This year five local camps were held throughout Georgia: at Fernbank Science Center supported by the DeKalb County Board of Education; at Lake Acworth through the Cobb County Recreation Department; in Milledgeville through the city's Parks and Recreation Department; for the second year in Waycross in conjunction with the Okefenokee CESA; and also for the second year at Oatland Island near Savannah through the Chatham County Board of Education.

YCC's purpose is to involve youth in developing and maintaining our natural resources. Through YCC, needed conservation work on public land is completed while providing employment for some few 15 to 18 year olds from all social, economic and racial backgrounds. Hopefully, YCC also develops in these youth an appreciation of our nation's natural resources and heritage.

Why do the youngsters apply to work in the YCC? "I heard about it through my teacher—she put a notice on the bulletin board—and I needed a job, so I thought I'd apply," says Michelle Wilder, a tenth grader at Sequoyah High School who worked this summer at the Fernbank YCC camp. Is money their main incentive? One student's answer is typical. "I needed the money, sure, so I applied. It's better than doing nothing you know. But it's turned out to be fun. I have a friend who applied but wasn't chosen. Man, is he bored!"

At Fernbank Science Center, a forested 130 acres in DeKalb County, 11 boys and nine girls stream in about 8:00 A.M. every day. Though Fernbank and its YCC are run through the county Board of Education, only seven participants go to DeKalb County schools. Others come from nearby schools in Fulton, Newton and Henry Counties, City of Atlanta and Decatur Schools and one private school. Most are tenth graders. Eleven are black.

This is the first year Fernbank has hosted the YCC program, but they're hoping it won't be the last. Says Dave Funderburk, the camp director and Fernbank's Instructional Coordinator, "We had some problems, you might say, getting started, stemming from the fact that we received our funds on June 14, the day the kids arrived. Needless to say, it took some time to get enough shovels, hard hats, gloves and other equipment purchased."

"And we haven't gotten our tee shirts yet!" one of the students chimes.

"Just wait—I promised," retorts Funderburk as he explains the shirts will have the blue, green and white YCC badge and "Fernbank Science Center, 1976." A reward for a job well done?

"But once we got all our equipment, the kids got busy with their work and have accomplished quite a bit," Funderburk adds.

The kids at Fernbank divide their time between conservation (forestry) and horticultural work. During the [illegible] weeks in forestry work, they

are supervised by Walter Huntemann, "a real ogre," the kids teasingly tell. Horticulturist Bill Brown coordinates the other four weeks' work.

They work on clearing trails in the 65-acre Fernbank Forest, planting flowers and shrubs on the grounds and in the new botanical garden, and ridding the forest of exotics which, translated by the kids, means pulling up wisteria. "I even dream about wisteria crawling all over me. I can't get away from it!" one young man offered.

The work is done mostly in the mornings with the last two hours each day reserved for environmental education. Each week they've had lectures and projects on different topics such as land, water and air. Most agree with Tony Ward of Crestwood High in Roswell that the meteorology segment has been the most interesting. Fernbank's own meteorologist, Jim Buckley, apparently made a big hit with the students.

Field trips to some unusual places have proven quite interesting, the students explain. They have visited landfills, sewer and water treatment facilities and incinerators as well as Fernbank's planetarium and electron microscope laboratory.

Even in the working phase of YCC the students were exposed to new concepts. And maybe this is what YCC is all about. Michael Sheehan of Lithonia pointed out that they learned to "cruise timber, use forestry equipment, tell ages of trees and learned something about horticulture."

Michael and Dan Sewell of Stockbridge went to YCC Camp in 19[illegible] at Panola Mountain State Park, and they knew what was in store for them. Though they agreed that the education segment at Fernbank was quite good, they did suggest that "the program be expanded to give us a wider variety of things to do. We can do lots of things, given the opportunity, and we want to try them. Last year we roofed a building while at YCC—we had never done anything like that before. But it was really fun!"

The two went on to say that they knew at Fernbank funds for supplies were late coming this year so Fernbank's staff had little time to do any advance planning. Sheehan and Sewell pointed out that lack of advance planning and the computerized selection process were the biggest YCC handicaps.

In 1975 applications were taken
rough the county boards of educa-
on, and each applicant was inter-
ewed by a camp director to find
it if he or she were really interested
and suited for this type of pro-
am. This year, the two federal
encies decided selection should be
ade by random computer selec-
n. And Dan adds, "And no place
that application was there a
estion like 'Do you enjoy the out-
doors?' That wasn't even a pre-
quisite."

Camp Director Dave Funderburk
ds that computer selection was de-
ned to obtain an unbiased cross-
tion of participants. There were
out eight applicants for each open-
statewide. At Fernbank, he was
t a list of 20, plus lists of 10 male
l 10 female alternates. Of the
ginal 20, 16 stayed; four alter-
es took their places. One of the original 20 was a boy from Ludowici, roughly 175 miles from Atlanta! Since the selection was computerized, location was not to be a factor, even though Fernbank has no dormitory facilities. The boy, obviously, did not attend.

Red tape is another problem, according to Funderburk. When you must deal with two federal agencies, one state agency and a county Board of Education, what can you expect? "It is a necessary evil, but it does get cumbersome sometimes."

"But we really are enthusiastic about YCC," he stresses. "We've learned from this year's camp and will apply again for a camp next year. And next year's camp will be even better. We've sort of done things on a day-by-day basis this year, because of the funding delay and everything, but it's worked out okay. We have, first and foremost, tried to avoid regimentation—we're all on a first-name basis you know. That, at least, establishes a good foundation."

And what do the kids say about YCC?

Dan Sewell says, "It's a real promising program. But if a kid needs money, like just before going to college, it may not be enough. But if they go to $2.50 per hour . . ."

"It's a lot better than waiting on tables," voices Jennifer Scott of Southwest DeKalb High.

Michelle Wilder opines, "It is a good program. We've made some money and learned some things, too. And made some new friends."

"Yeah," Tony Ward adds. "We've spent the summer with kids we might not have chosen to be with otherwise. But we all shared a lot, became friends and maybe learned a lot about each other."

If we could all learn so much.

Wildlife Profiles:

The American Woodcock

By Bill Moorhead

The woodcock is a popular gamebird in the New England states and in some states of the Midwest like Michigan and Minnesota. In Georgia, hardly anyone knows it exists. There are some hunters who, trampling through a duck swamp or hunting a swamp covey of quail, occasionally stumble across *Philohela minor,* and there are some few avid gunners who hunt them exclusively, but not many.

The woodcock belongs to the shore bird family *Scolopacidae,* along with snipes and sandpipers. Many Georgians call it a "snipe," which in fact it is. It looks like a snipe, with its long bill and long legs, and its big eyes set far back on its head. It is often confused with its smaller cousin, the jacksnipe. The woodcock, however, is a larger bird with bigger eyes for its size. The easiest plumage difference between the two is the woodcock has bars across its head from eye to eye while the jacksnipe has stripes across its head from bill to snipe.

Casual birdwatchers don't see the woodcock. That's because they don't inhabit areas where they are likely to be seen casually, preferring the greenbriar/swamp privet areas of river bottoms to the field edges bobwhite quail prefers. Another reason people don't see them is that they mostly fly during twilight hours to and from feeding grounds, choosing to rest during daylight hours under the protective swamp flora.

In fact, they tend to migrate at night. Woodcock may breed throughout their range and, indeed, some individuals are thought to be non-migratory, but large numbers breed in the eastern and middle provinces of Canada and bordering states of the U.S. These breeding grounds furnish migrants which show up in the southern states during the months of fall and winter.

Compared to the migratory and breeding habits of waterfowl, little is known about the woodcock. Two very rough and ill-defined migration routes have been described by federal and state researchers: the Atlantic region which corresponds loosely to the waterfowl Atlantic Flyway; and the Central Region which similarly corresponds to the waterfowl Central Flyway.

Two main techniques are used by the U.S. Fish and Wildlife Service and cooperating agencies to monitor woodcock populations. The cooperative wing-collection survey, in which sportsmen voluntarily submit wings from daily hunts during hunting seasons, provide information on the previous breeding season and hunting success.

The other technique relies heavily on the fascinating courtship flight of the male woodcock during mating season and on the migratory habits of woodcock. The northern breeding grounds are also known as "singing grounds".

During courting time, the male woodcock indulges in a remarkable routine. At twilight, the male spirals up in the air in a mixture of flying wizardry and aerial comics. The spiral ascent may extend for a hundred feet or more whereupon he circles for a while, retracing his flight in a downward spiral.

During his return, the male sounds off his courtship song, a series of rapid-fire cheeps. After he alights, he

Painting by Richard Parks

Richard A. Parks

forgets he is a hand-sized woodcock and pretends he is a 20 pound turkey gobbler, dropping his wings and spreading his tail and doing a miniature version of the gobbler strut. I don't know whether he attempts to do a turkey gobble, but he attempts to do something—which comes out sounding like a squeaky door (the sound is called a "peent"). Obviously, the sound and the antics are successful as well as amusing.

This courtship display is provided not only for Canadian and Federal "cheeping toms" but also for the lucky Georgian who happens along in a swampy bog in February or early March. Like UFO's, it has to be seen to be believed. Also like UFO's, it should be talked about in front of witnesses or you'll lose your credibility.

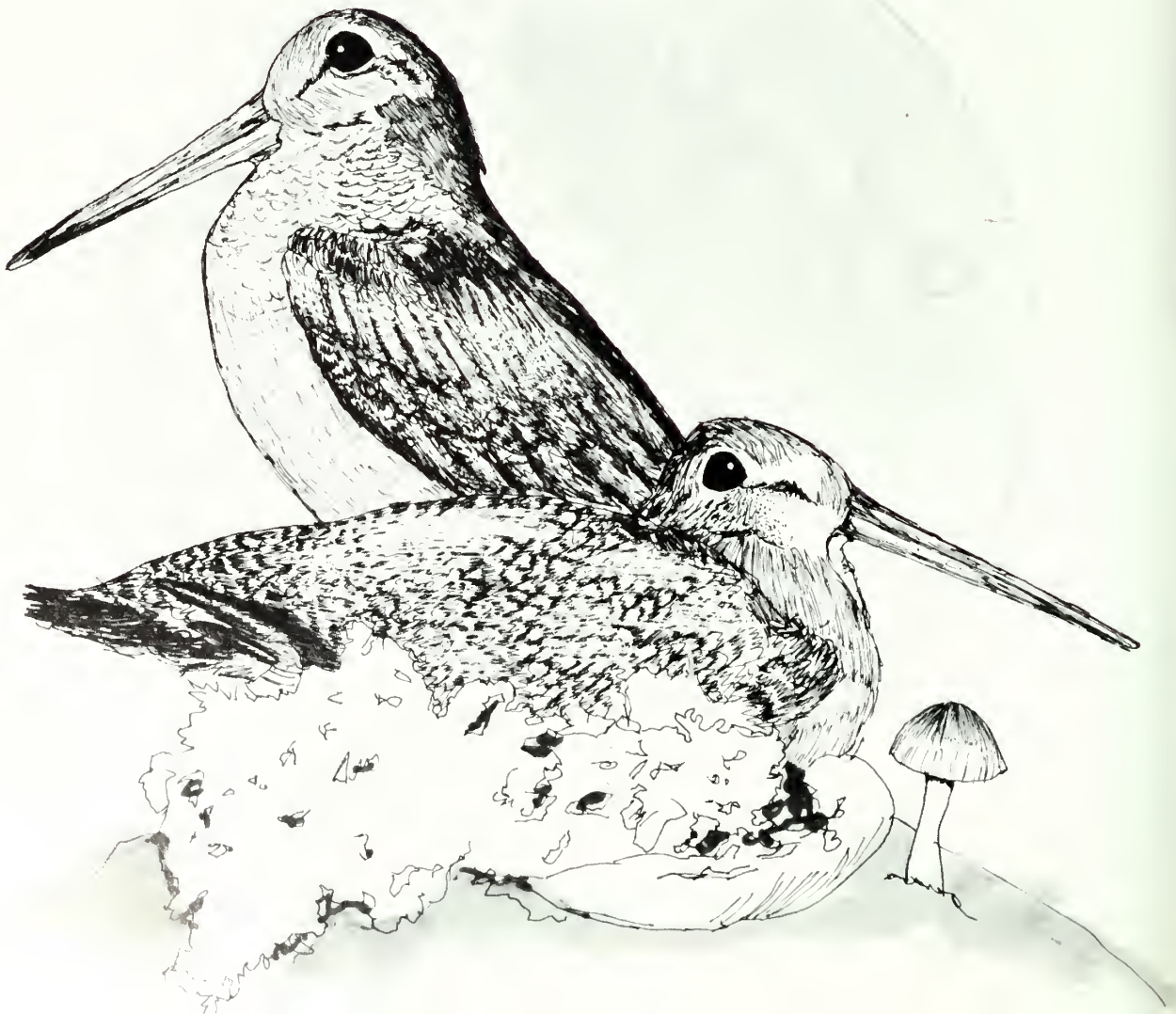
The singing-ground survey is used to get an estimate of the size of the post-migrational breeding population. Thus, the survivors provide a key to next year's numbers.

Researchers are quick to admit that they know too little about the woodcock and his habits. But they know some things. The destruction of flood plains bogs and swamps in the northern breeding grounds has the same effect on woodcock as it does on ducks. Numbers c crease. Uncontrolled hunting seasons, without regard t the biology of woodcock, would have the same effect.

The woodcock's feeding habits are tightly connect to his future. People who know anything about woodco know they are worm-feeders. But few except hunte and researchers know they also feed on insects. Furth the woodcock's habitat preference of river bottoms a swamps exposes the bird to large concentrations of pes cides and herbicides which nature collects in these are

Presently, there is good news and bad news concerni the woodcock. In the central region their numbe appear to be holding steady—maybe even increasi But in the Atlantic region their numbers appear to decreasing at about 2 percent per year. Thus, for the of you who hoped to take up woodcock shooting as substitute for your long-gone quail hunting, don't cou on it. Georgia's woodcock are in the Atlantic region.

If we destroy our bogs and swamps, if we denude c river bottoms of natural vegetation, if we continue clog our drainage systems with highly stable poisons we'll eventually extinguish the woodcock.



Land Reclamation

y Bill Hammack

Humankind's first impact on the environment took ce when Adam tossed away the first apple core and environmental condition has gone downhill ever since. n Georgia, however, adverse environmental impact n industries such as strip mining has been slowed rywhere in the state and even brought to a standstill in or two areas. This happy situation is the result of e factors: state environmental protection officials who e ready to prove their bite can be worse than their bark, nd reclamation act with sharp teeth passed by the slature, and some cooperative strip mining operators have come to see that successful land reclamation thing more than just plain good business.

Heading Georgia's force to prevent a rape of the land e that which has scarred broad sections of states such Kentucky and West Virginia is a tough-minded, quiet-ced administrator, Leonard Ledbetter, director of the vironmental Protection Division (EPD) of the Depart- of Natural Resources.

"We have the responsibility, under the law, to carry out the mandate expressed in the name of our division—to protect the environment generally and, as in the case of surface mining, specifically."

But before 1968, there was no mining law, and parts of Georgia were ripped and stripped and left ravaged with the same sort of devastation that strip miners had visited upon, for instance, Kentucky, where the ruination was denounced by environmentalists like Harry Caudill in his books such as **My Land Is Dying** (E. P. Dutton & Co., Inc. 1971). The ugly, despoiled areas in Georgia were not only eyesores, but erosion from them was polluting streams and harming wildlife—game and fish.

"In those days," said Ledbetter, "surface miners would merely push aside spoil banks where they were stripping out kaolin or whatever they were mining. The spoil banks eroded down into the swamps and wetlands adjacent to streams and spread a slimy film over the area. That slimy film destroyed wildlife and fisheries habitat.

The term, strip mining, and the reaction to it is usually associated with coal production, which in Georgia is limited to the extreme northwest corner of the state. (photo at right)

The most common surface mining in the state is concerned with the production of kaolin and other clay products such as shown at far right.

Such damage was not eonfined to a small section. It stretehed along the fall line all the way from Maeon to Augusta."

Responding to this deteriorating situation in the elimate of the 1960's when environmental awareness was awakening, the legislature ealled for a hard-nosed study. Ledbetter set up a tour for legislative leaders and representatives from state agencies. "We took them up and down the fall line as well as into southwest Georgia where at the time surfaee miners were stripping out limonite, brown iron ore. Beeause of the iron mining, erosion was polluting Lake Walter F. George. Besides all this, our pulp and paper mills were discharging untreated wastewater into our major rivers and off our eoast. Georgia is the number one pulp and paper produeer in the nation and we had the number one water pollution problem assoeiated with pulp and paper mills in the 1960's. Additionally, eities like Atlanta and Savannah were dumping all of their raw sewage into our waters—the Chattahooehee was Atlanta's sewer and the harbor was used as Savannah's. The legislators saw a great deal of pollution all over the state."

In 1968, the legislators passed the Surfaee Mining Aet. In 1975, they inserted more and sharper teeth into the act. So armed, Ledbetter and his environmental seientists ean and do establish and enforee reasonable standards. "We don't nibble pieeemeal at maintenance of environmental quality," says Ledbetter. "We don't try to earry out an independent water pollution eontrol program, or an independent surfaee mining program. We tie together Georgia's Surfaee Mining Aet, the state's Water Quality and Air Quality Control Aets and federal water pollution eontrol legislation. This gives us the opportunity to administer a eoordinated program working with the mining operators, which enables them to go ahead and obtain needed mineral resourees with minimal impaet on the environment."

Ledbetter, who lives in the real world of the late 1970's, points out that Georgia's mineral resourees must be utilized for continued progress in the state, but that while progress is compatible with environmental protection, provided proper safeguards are established.

Key to the safeguard is environmental planning sin-taneous with surface mining planning. "The time to proteet the environment," says Ledbetter, "is befor a dragline takes its first bite."

Typieal of this meticulous environmental plannin s what went on not long ago in northwest Georgia's C -tooga County.

Thar's eoal in them thar hills, to paraphrase an e y 19th eentury gold seeker in the mountains of Lump County around Dahlonega. Sanford Darby, manage f EPD's Surfaee Mined Land Reelamation Progr , worked closely with the eoal mine operators—as e works with all mining organizations in the state—in -mulating a plan that would ensure minimal environn -tal impact while at the same time permitting the l miner to operate "Environmental planning in the in l stages of a proposed surfaee mining operation not y proteets the state, but benefits the miner," said Da l. "Sueh planning is the eornerstone of eeonomieal l d reelamation. A surfaee miner removes the overbu n that eovers the mineral deposits he seeks. If he doe 't plan, he may deposit spoil—the removed overburde n in the wrong plaee, where it might erode and degrade e adjaeent watershed. If he has to move that moun n of spoil onee or twiee or several times—what we ll double handling—to satisfy environmental requ -ments. his eosts skyroeket."

Darby is a man who seldom raises his voiee but d s not hide the big stiek he earries. An environment t with a masters degree in forestry who loves the land, l s aware, like his ehief, Leonard Ledbetter, that the "do -strip-a-single-aere-of-this-Georgia-soil" syndrome is u -realistie in this day of 20th eentury mineral needs o Darby seeks to make sure that the footsteps of prog s do not defaee the land. He says, "A strip miner oper s aeeording to a state-approved, environmentally so d plan, and his mining permit is good as long as he oper s under that plan. If he violates the plan or proceeds a way that differs from the specified proeedure, we n issue to him a eease and desist order. Usually, though e

rst issue a warning and give him a reasonable period of me to get his operation baek on the right traek. If he oesn't, within the time allotted, we elose him down."

Some mining operators eomplain that Darby is too ough but all admit he is serupulously fair, managing nd reelamation with an even hand.

He's the target of rocks from the other side as well, rom citizens who, for example, denounee a show of rbidity — diseoloration, cloudiness, muddiness — in a ream flowing near a mining operation. It is understandble why people beeome eoncerned when a mining outfit anks up what seems to be a substantial operation nearly. The horror stories of raped lands in other states eome to mind and local eitizens visualize the same ealamity appening next door to them. Compounding the problem the faet that, at best, there will be some deterioration. PD monitors every one of these operations, constantly heeking sueh sensitive areas as water quality; so far, bserved turbidity generally has been well within the mits imposed by the state. In middle Georgia, EPD's sk of reassuring eitizens that at last somebody is mindg the environmental store is made more difficult by the ghts there of old despoliation that still affront the eye.

But some of these old mine sites that look barren as oonscapes slowly are turning green and eye-pleasing as lleys are filled and spoil piles graded, and grass and pine trees are starting to flourish. Progressive mining operators are restoring these "orphan aeres"—that's what they're ealled and that's what they are. They were stripped many years ago, long before anybody gave thought to the environment, when most eitizens welcomed the strippers beeause they brought some money into the community. In most instanees, the companies that stripped the land and left it ravaged are gone, and in any ease they could not be held aeeountable beeause in those days there was no land reelamation law. When a modern operator reelaims land he has mined adjaeent to some orphan aeres, he may go the extra mile and bring some of the orphans baek into the family of green aeres, prettifying what he did not uglify.

Land reelamation isn't eheap. In Georgia's 1975 law, an operator may be required to post bond of up to $1,000 an aere to ensure reelamation. But benefits aerue to the operator, as Sanford Darby points out. Reelamation of land from whieh he has stripped minerals offers the miner several options. The land ean return a long-range profit in a renewable resouree sueh as pine trees; it ean beeome a pasture for raneh or farm stoek; it ean beeome a wildlife refuge sparkling with lakes stoeked with fish. Sueh a refuge seems to offer a definite marketing advantage to a mineral company in playing host to prospeets.

The greater benefit accrues to Georgia and Georgia
No longer do such streams near mining areas as Comm
sioner Creek run white as a shirt from kaolin mining
dead place for fish; following a heavy rain that ero
some old orphan acres, Commissioner Creek may tur
a little pale these days, but you can catch fish there n
No longer are Sandersville and Dry Branch and Gorc
and McIntyre and other towns in kaolin country coa
with a fine film of white like rice powder on the che
of an aging dowager. Under Georgia's air quality cont
acts, kaolin miners have installed such air pollution c
trol devices as scrubbers and what they call filter l
houses. "Kaolin people have spent lots of money
these installations," said Leonard Ledbetter. "This
of air pollution is difficult to control."

Yet one of this year's top environmental awards by
Georgia Business and Industry Association went to
Georgia Kaolin Company of Dry Branch for its work
reducing air pollution. In reclaiming land, Geor
Kaolin has instituted a program of "total reclamatio
which means the company is going to try to restore ev
acre under its control, orphan acres and all.

"It's the only way to do the job right," says Fl
Reynolds, Georgia Kaolin's land reclamation mana
"Patchwork—that is, piecemeal land reclamation—w
eliminate water pollution problems associated with
phan acres. Our company management firmly belie
that we must try to reclaim all land at a specific mir
site, and not just those areas where a legal obligat
exists. This is going to take time. We hope to recl
additional orphan acres each year, over and above
annual legal obligation. This approach will return
lands we have jurisdiction over to productive sites."

Total reclamation is also the way Engelhard Mine
and Chemicals Corporation seeks to tackle the
Englehard's mines manager at McIntyre, Jack Walto
a veteran miner—"I've been working here 45 years,'
says—who has won awards for reclaiming land.
November 1971 he received an appreciation award f
the state for doing a good reclamation job, and this y
he won not only a district soil conservation award b
State Merit Award for outstanding reclamation wor
cooperation with the University of Georgia and the
partment of Natural Resources. "I'm right proud of th
says Walton. "I was the only one in Georgia who got
for reclaiming land."

Walton adds that "These awards were made poss
only because the top management of our comp
backed me 100 percent in our reclamation program.
Department of Natural Resources—Mr. Ledbetter
Mr. Darby—helped me when I needed technical a
tance. And the Soil Conservation Service helped e
time I asked. So this is a joint venture. It's not somet
I've done right by myself. I had a lot of help. And I
other people's knowledge and got credit for it."

*This surfaced mined land has been reclaimed in stage
The pines at right top are the oldest plantings and the
grassy field is the latest. The trees in the foreground
are on unmined land.*

Sanford Darby commented, "Jack Walton had help nd the full cooperation of his company's management, ut he ramrodded the job and the credit is his."

(His company management's farsighted policies re- ulted in winning another award; in 1974, Engelhard Minerals and Chemicals won top environmental recogni- ion from the Georgia Business and Industry Association or work in decreasing air pollution.)

There are some forested acres near McIntyre where handsome stand of five-year-old pine trees about 12 eet tall spreads over rolling land next to a big lake full f fish. It's hard to believe any sort of mining operation ver took place there. But not many years ago, this area as stripped and bare while Jack Walton the miner cooped out kaolin. Then Jack Walton the land reclaimer ook over and graded and filled and planted grass and ine trees and established a lake.

"This reclaimed mine site," says Sanford Darby, shows what can be done."

From January 1969 to February 1976, 421 mines in Georgia have yielded 22 different mineral products from 9,519 acres. Total bond posted to ensure land reclamation comes to $5,841,113. By February 1976, a total of 1,074 acres had been reclaimed.

Deer Forecast

By Aaron Pass

Perhaps the watchword this deer season is no surprises. It looks pretty much like last year and the year before. This is due to one inescapable reason, Georgia's deer population is approaching its maximum in most areas. It had to happen sooner or later and now is the time.

For the most part, those areas in the state capable of accommodating deer have deer in residence. If those deer have been there any length of time they have pretty well maximized their population within the constraints of local limiting factors.

Of course there are still local fluctions such as heavy illegal hunting or changing land use which take a toll and cause a decrease. There are also instances of local gain. These are, however, localized, and looking at the situation state- or even regionwide we see a season that will closely duplicate last year.

Areas that had lots of animals are mostly still productive. On the other hand, mediocre areas will probably still be mediocre.

In **Northwest Georgia,** deer hunting continues to be tops in Floyd, Walker, Haralson, Polk, Gilmer and Gordon Counties. A new addition one day of either-sex hunting Floyd, Haralson, Polk, Walker a a portion of Gordon. The top Wi life Management Areas in the reg will be Berry and Allatoona. R Mountain WMA is a good spot trophy bucks, and Johns and Pige Mountains offer good primit weapons hunts.

Northeast Georgia reports a f outlook with results much like l year. Best counties look like Ban Lumpkin and White. Over the gion there are localities where d hunting is poor due mostly to ille hunting. Best WMA hunts will Chestatee, Coopers Creek and L Russell.

The **Central-West** region Jones, Jasper and Monroe Coun as top deer producers, and Ups Crawford, Lamar and Pike as best bets for trophy animals. E WMA's appear to be Central Ge gia, Oaky Woods and Ocmulgee.

The **Central-East** counties of O thorpe, Elbert and Walton are lo ing really good this year. Morg Greene, Taliaferro, Warren a Wilkes are as good as ever. Og

chee WMA has established a record for big deer with one 245 pound animal taken last year. Clark Hill WMA still has the most deer.

Southwest Georgia lists its best bets as Talbot, Taylor, Macon, Stewart, and Worth Counties. This is based on the size of deer, number of deer and available hunting opportunity. Many counties in this region have increased either-sex hunting, and the deer population looks fair to good based on crop damage reports. The WMA's, Big Lazer Creek, Chickasawhatchee and Seminole should be about like last year.

South Central Georgia looks about like last season. Ben Hill, Wilcox, Bleekley, Telfair, Irwin, Pulaski, Brooks, Lowndes, Wheeler and Montgomery Counties all look o.k. As for WMA's Dixon Memorial Forest, Bullard Creek and Horse Creek are very promising. Arabia Bay and Suwannoochee appear about like last year.

The **Coastal** region reports Camden, Glynn, Effingham and Liberty Counties look better than last year. Long and Chatham look about the same, and McIntosh and Bryan appear to be down. This was based on both track counts and nuisance complaints.

Sportsman's Calendar

Deer (Archery)—Oct. 2-30, Either Sex. Statewide, except those counties with gun hunts opening Oct. 15.

Deer (Firearm)—Oct. 15-Jan. 1, Bucks only in the following counties:

1. Burke, Emanuel, Jefferson, Jenkins, Screven, and Washington.
2. Toombs, Bulloch, Candler, Evans, Tattnall, Wayne (except closed portions), Pierce (except closed portions), Brantley, Charlton.
3. Effingham, Chatham, Bryan, Liberty, Long, McIntosh, Glynn, and Camden.

NOTE: Statewide deer season opens November 6. Due to the many local exceptions the hunting regulations should be checked for specific areas.

Small Game

Bobcat—Oct. 15-Feb. 28, statewide, no limit. Night hunting allowed.

Fox—No closed season, no limit, statewide. Night hunting allowed.

Grouse—Oct. 15-Feb. 28, statewide, limit 3.

Opossum—Night hunting allowed, no limit. Game Zones I & II—Oct. 15-Feb. 28; Game Zones III, IV, V, VI, VII—no closed season.

Quail—Nov. 20-Feb. 28, statewide, limit 12 (possession 36).

Rabbit—Nov. 20-Feb. 28, statewide, limit 10.

Raccoon—Night hunting allowed. In Carroll, Fulton, Gwinnett, Barrow, Oglethorpe, Wilkes, Lincoln and all counties north of these—Oct. 15-Feb. 28. Bag limit 1. In all other counties—no closed season, no limit.

Squirrel—Game Zones I & II—Sept. 15-Feb. 28, bag limit 10. Game Zones III, IV, V, VI, VII—Oct. 15-Feb. 28, bag limit 10.

To receive a copy of the Georgia Hunting Regulations, 1976-77 please write:

Georgia Department of Natural Resources
Information Office, Room 719
270 Washington Street, S.W.
Atlanta, Georgia 30334

Outdoors Quiz

by Lt. V. J. Garrison

EDITOR'S NOTE: Certain of the following questions or statements have more than one correct answer.

1. A person engaged in legal hunting and fishing may carry a pistol without a license provided:
   a. The pistol shall be carried open and fully exposed.
   b. The hunter or fisherman has permission from the land owner to hunt or fish.
   c. The barrel length does not exceed six inches.
   d. He has a valid hunting or fishing license.
2. To be eligible to purchase a Georgia "resident" hunting or fishing license, a person must:
   a. Present a valid drivers license.
   b. Own $500 or more of real property in the State.
   c. Be domiciled in the State for 90 days or more.
   d. Live in the State.
3. A person convicted of littering may:
   a. Be fined not less than $25.00.
   b. Be fined not more than $300.00.
   c. Be required by the court judge to pick up all litter for a distance not to exceed one mile of right-of-way.
   d. All of the above.
4. Which of the following is not considered a legal firearm for a "Primitive Weapons" deer hunt?
   a. 30 caliber M1-Garand.
   b. Long bows.
   c. Muzzle loading rifles .44 caliber and above with iron sights.
   d. Muzzle loading shotguns, 20 gauge and larger with single ball ammunition.
5. It is illegal to discharge a firearm on or within:
   a. 100 yards of a public highway.
   b. One quarter mile of a public highway.
   c. Seeing distance of a public highway.
   d. Within 50 yards of a public highway.
6. Which of the following are near extinction and protected as endangered species?
   a. American alligator.
   b. Georgia blind cave salamander.
   c. Red cockaded woodpecker.
   d. Southern bald eagle.
7. It is illegal to take doves over:
   a. A harvested corn field.
   b. A millet field which has been bush-hogged.
   c. A pond or body of water where birds are wa[illegible]ing.
   d. Salt.
8. The daily bag limit of doves for the 1975-76 sea[illegible] is:
   a. 18
   b. 10
   c. 12
   d. 6
9. A person may not operate an off-road vehicle [illegible] private property without the written permission [illegible] the land owner. Which of the following are con[illegible]ered off-road vehicles:
   a. Four-wheel drive vehicles.
   b. Motorcycles.
   c. Farm equipment.
   d. Amphibious machines.
10. A person may not discharge a firearm on Sun[illegible] except:
    a. On his own land.
    b. In defense of person or property.
    c. At an approved and supervised local, state [illegible] national firing range.
    d. None of the above.

a, b, c
a, b, d
c
d
a, b, c, d
d
a
d
c
a, b, d

Letters to the Editor

I've tried to find someone in Alany who can satisfactorily answer ny question about a rifle I have, but ince no one really seems to know, I m directing my question to you hopng you can help me.

When I was a child (1948), my nele gave me a Japanese rifle he had rought back from the South Pacific vhere he had been stationed during World War II. It was placed in a loset and has remained there for nany years. Recently I began to take n interest in it. I took it out, broke i down and cleaned it, and found it t) be in remarkably good shape. Not even knowing what caliber it was, I took it to a local sporting goods s ore where I was told that it is probably alright to shoot, being made ut of better metal than today's rifles, nd that it fired a 6.5 Jap.

I bought a box of cartridges and lanned to try it out, but the more I nought about it the more apprehensive I became. My question to you is this: Are these old rifles safe to re? I realize without seeing the rifle ou cannot tell me that it is safe to re; however, I thought perhaps you ould give me some advice about roper procedure for test firing and a eneral opinion regarding its safety. Your comments will be most appreated as I would like to use this rifle his coming deer season.

Robert W. Culberson

We would be the first to agree with you that we cannot judge the safety of your rifle. You should have the rifle examined by a professional gunsmith to determine its safety. In particular have the headspace checked. Many thousands of war surplus Japanese Arisaka rifles in both 6.5 and 7.7 mm have been used by sportsmen in the U.S. These calibers are satisfactory for Georgia deer hunting.

Recently I received several copies of your magazine, *Outdoors in Georgia*, from a friend of mine. The magazine had several good pictures of quail and different types of birds.

One of my hobbies is decoupaging pictures of wildlife. I would appreciate any pictures, copies of magazines, or any information you could send me.

I am mostly interested in the quail picture that you featured on the front cover of the January 1976 copy of *Outdoors in Georgia.*

Again, I would appreciate any information you could send me.

Jack Tarbert

From time to time we have considered making prints and photographs available to the public. Our decision not to do so has been based on our limited staff to handle requests. Currently the well known financial situation precludes us from even considering it.

Dear Mr. Dodd:

I just received my August copy of *Outdoors in Georgia* in which the article about you and Mark Trail appeared.

I have read your little comic strip over the years and quite often have clipped out some of the interesting facts about wildlife that it contained. So I was very surprised, unpleasantly so, to read your remarks about hunting and your rather vehement opinion of anti-hunters. I had somehow imagined you to be a more compassionate man, a sort of Loren Eisley or Albert Schweitzer type.

The issue of game management, whether or not it is beneficial to wildlife and the ecology, is really not debatable. I think we would all agree management of some sort in today's world is necessary. But what really concerns me is how anyone can honestly enjoy killing for "sport", "fun", or "pleasure". Hunters like to claim that it is a sort of heritage . . . I personally think it is an anaeronism. Our ancesters (sic) had to hunt for food, it was in the nature of things, but I dare say they didn't kill for fun—they killed in order to survive. Our unlettered, uncouth and savage anchesters (sic) probably did a number of things that we civilized human beings do not do today. So why should hunters be so proud of a practice so outdated. Furthermore, I can't see that hunting for sport is compatible with the Christian Ethic (I assume you are familiar with that since your father was a clergyman).

I applaud you for Mark Trail's concern with wildlife, but I am disappointed that Ed Dodd finds hunting so pleasurable. I am sure you are successful, Mr. Dodd, but humane?

Betty Clayton

Ed note: We received a copy of this reader's letter to Ed Dodd. His reply is below.

My dear Mrs. Clayton:

I have your letter of August 20, 1976, and apologize for this tardy reply. I have been out of my studio on an extended trip and I am just now getting to my correspondence.

Anyone who has followed Mark Trail for even a short time must admit, I feel sure, that the entire thrust of the strip encourages kindness, compassion and humanitarian consideration toward animals, and Mark himself has spent his life defending wildlife from poaching, over-shooting and inept game laws.

The feature, I hope, has never made the mistake of humanizing animals, which I feel is done by a lot of well-meaning people. Psychiatrists call this anthropomorphism, and it is, as pointed out in the *Outdoors in Georgia* story, a difficult attitude for a rational conservationist to combat.

Hunting and fishing are helpful pastimes and the recreational values are important in this age of concrete, plastic, and mad rush. Most outdoor people will agree, I feel, that hunters and fishermen are, as a rule, decent and honorable people, and not the monsters sometimes depicted by misguided television and feature writers.

The idea of not killing game animals is not a practical one and many who support this philosophy do not hesitate to eat beef, pork or fowl, or to wear leather shoes and jackets, or to pick a flower for a touch of beauty in the living room.

I understand you have sent a blind copy of your letter to the editors of *Outdoors in Georgia* and I am therefore sending a copy of my reply to them also.

Let me thank you for taking the time to write.

Sincerely,
Ed Dodd
Creator of Mark Trail

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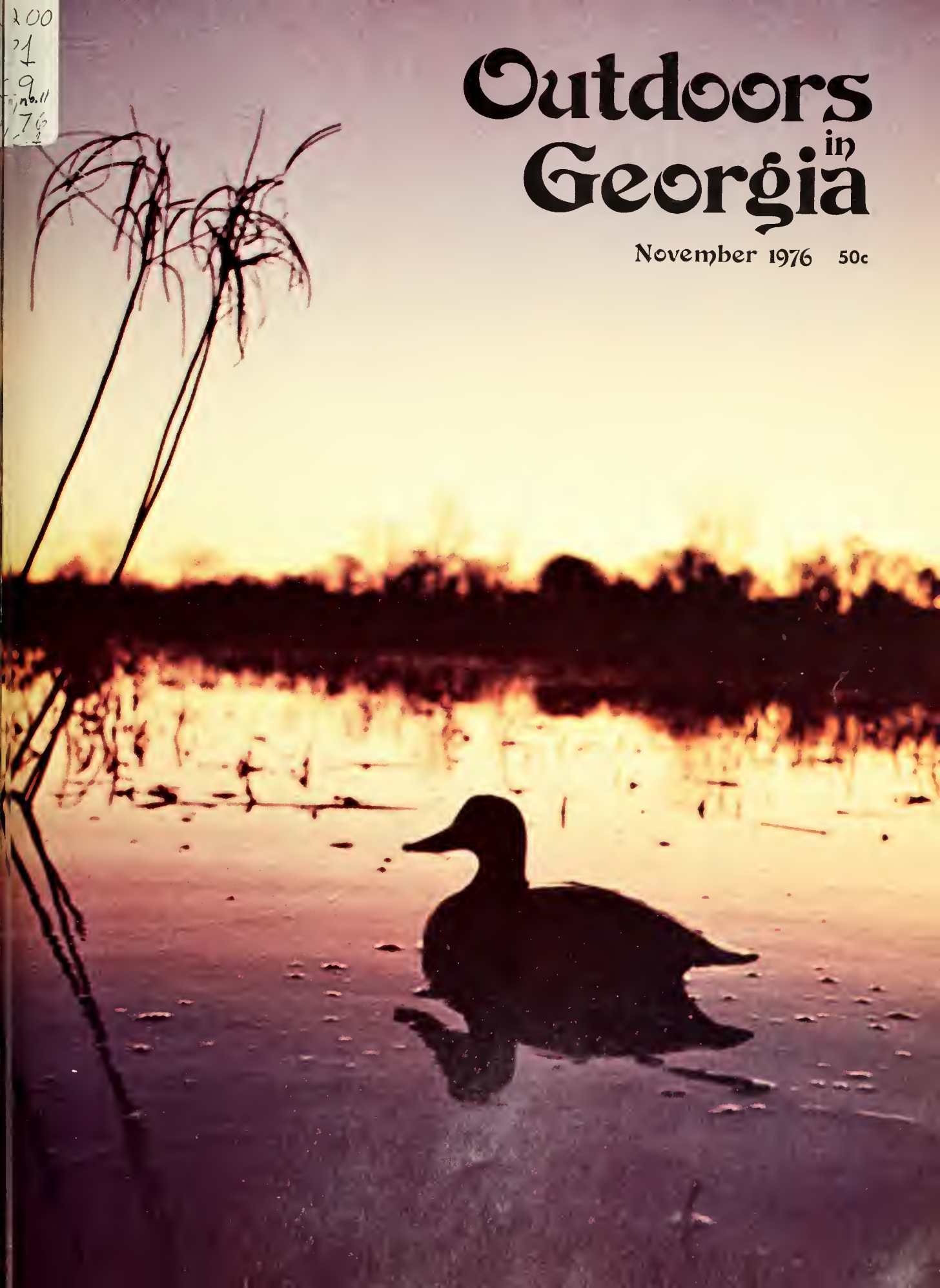

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MAGAZINE STAFF
Phone—656-5660

David Cranshaw · Editor-in-Chief
Bill Morehead . . . . . Editor

Aaron Pass . . . . . Managing Editor
Rebecca N. Marshall . . . . . Writer
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Priscilla C. Powell Circulation Manager

Liz Carmichael Jones . . . Art Director
Mike Nunn . . . . . Illustrator
Bob Busby . . . . . Photo Editor
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Bill Bryant . . . . . Photographer
Jim Couch . . . . . Photographer

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No Park - This Year

Most of us are in favor of public enjoyment a magnificent natural setting like the proosed Chattahoochee River National Recreation rea. Most of us are against further pollution of e river. We in Georgia's Department of Natal Resources have dreamed for a long time out a park on our great river for the pleasure d enjoyment of all Georgians. We have eamed about cleaning up the river. And for ars we have worked hard to have these dreams come reality.

Governor George Busbee vigorously favors sponsible and sound development of the Chathoochee park. He has said that "a major fedal commitment toward creation of the Chattaochee River National Recreation Area is sperately needed."

Natural Resources Commissioner Joe D. anner has provided strong leadership in headg this Department's effort to protect the river d bring the national recreation area into ing. The State of Georgia, with assistance of e Federal Bureau of Outdoor Recreation, has quired property there valued today at $14 illion.

The reasons for this effort are obvious. Proeration of commercial development has long omed over this scenic river, a state treasure at belongs to all Georgians. The section of the attahoochee proposed for the park is unique. state anywhere in the country can claim anying like it—a wild river in its natural setting ursing through a major urban area.

Joe Tanner, the Department of Natural Reurces and citizen's and environmental groups ve been trying to protect this heritage for all e people for several years. Last year, Senator m Nunn and Representative Andrew Young introduced similar bills in each house of Congress designed to stop commercial exploitation of the river corridor and create the Chattahoochee National Recreation Area. The Senate passed the Nunn bill. The House was ready to pass the Young bill, which was co-sponsored by 11 of the 12 members of the Georgia delegation. It was blocked by one vote, which was cast by Georgia's Seventh District Representative Larry McDonald of Marietta.

Governor Busbee was described as "disturbed, surprised and dismayed" by the negative action.

Commissioner Tanner observed, "To say we're disappointed is putting it very mildly."

Next year, in the next session of Congress, we shall try again. We are solidly in favor of public enjoyment of this natural scenic area, its tranquil beauty available to all the people, not just a few wealthy enough to buy land along the river. We not only are strenously against any further pollution of the river but equally active in cleaning out the gross pollution already fouling it below Atlanta.

In early Indian language, the Chattahoochee was the River of Painted Stones. We'd like to see the colors of those stones clear and vibrant again, a glowing clean river rushing again through the cathedral quiet of tall trees on unspoiled banks. We want that for all Georgians to enjoy.

David Crenshaw

About Duck Hunting in Georgia... and Other Things

By Bill Morehead

Art by Roland Clark

Photography by Bob Busby and Jim Couch

I like duck hunting because of the ducks and the religion. By religion, I don't mean the religious zeal with which duckers bankrupt the family treasury buying all the expensive stuff that goes with thinking about duck hunting. My attic, for example, is filled with junk I bought while thinking about the winter flights. The fact that very little of it has seen actual use does not mean that I won't buy more stuff come this winter.

And I don't refer to the religious camaraderie of duck hunters or duck clubs. Candidly, there is precious little of the way of obvious religion to be found in a raucous bunch of duckers, and a duck hunting club is better called a duck drinking club.

For the non-duck hunter who chances to read this, let me explain what I mean by this religion. Picture yourself at five o'clock in the morning in December, stumbling out of your warm bed, driving your car to the edge of some swamp. As you drive, your Labrador sits on the floor of the front seat, his head nestled on your knee, and both of you are talking (he with an occasional eager whimper; you with a sleepy drawl).

At the swamp, you pull your car onto the edge of the road. Your Lab busies himself with the nearest bush or tree, and you pull on your waders, uncase your gun, stuff your thermos into the game bag and head down the path to the water's edge. It is a black, clear-cold morning and you stare strangely at the hunter's moon that looks like a silver quarter in the sky.

Your Lab slips into the water with little splash, stands in it neck deep, and laps it with the love of a dog bred to "water". You wade to your blind and wait. You become friendly with the dense pre-dawn of the swamp, and notice a dead swamp tree silhouette itself against the moon, pointing one of its craggy fingers directly toward heaven.

Roland H. Clark (1874-1957), author, sportsman, and artist in many mediums, is best known for his etchings of wildfowl such as those shown here. He also worked in oils, doing sporting scenes, and produced five books which he illustrated himself. Perhaps his best known work was the design for the 5th Duck Stamp of 1938-39. This selection of Clark prints courtesy of Left Bank Gallery, St. Simons Island.

You are there when the black taste of pre-dawn silently shifts to the browns and silvers of first light. You are there to see the little swamp birds, the early risers, come to life. One little rascal scampers next to you and holds its head oddly, as if wondering what kind of a new tree you are. You are there when a muskrat swims by, busily heading for the office with the drive peculiar to muskrats and Germans. You are there to see a beaver bob up with a stick in his mouth, intent on putting a finishing touch to his living room.

You are there to think of these things and others, and to see the flock of blackbirds noisily discuss the morning. You see the flocks fly by, and you wonder for the hundredth time just where they are going and how they know to go there.

Because you are there, you get to hear—in the soft, [illegible]—the whistle of the morning's first wood duck. [illegible] answered by another, and soon you hear [illegible]. Your Lab, now adorned with icy earrings, hears this, too, and tenses with the first whis[illegible] of wings overhead.

Because you are there this morning, and have b[illegible] there for many other mornings, you know the bigg[illegible] ducks will fly later. You get to see the mallards as t[illegible] whoosh to morning feed. You get to see the woode[illegible] thread its flight through the alders. You get to se[illegible] flock of black ducks circle you *very carefully*—this n[illegible] cautious of duck shows you again why he is the Apa[illegible] of waterfowl.

Because you have been there this morning, you [illegible] home with your spiritual batteries re-charged. Th[illegible] what I mean by religion—to be in the swamp an[illegible] experience the unfolding of nature's dawn in the co[illegible]pany of one's best dog.

You'll notice I didn't say anything about shoo[illegible] ducks and carrying them home. That's the second [illegible] of why I like duck hunting. Ducks are a tremendo[illegible] challenge to the skills of the finest wingshots, and [illegible]

e delicious to eat. I started duck hunting to get ducks. The religious thing was an added bonus at first, but now it has become equally important. Now I go duck hunting to go duck *hunting*. Each time I go I intend to get my limit and—when I do—I'm glad.

The Classic Example

Sixty years ago many resource-minded citizens were predicting the extinction of wild waterfowl. It seemed justified at the time for the passenger pigeon, once the most abundant bird *in the world*—had become extinct. Unlimited market hunting, uncontrolled sport hunting and—worst of all—immense habitat destruction, seemed to head all wild waterfowl to the same end.

But a simple thing happened on the road to waterfowl's extinction. The hunter, through his time, effort and money, turned the situation around. Now, sixty years later, we still have waterfowl.

The waterfowl hunter paid for the salvation of American waterfowl out of his own pocket. It was the hunter who cried out for federal legislation to protect his game. He taxed himself, via federal and state licenses, and he taxed his equipment (guns, shells, etc.) and gave voluntary donations to private organizations (such as Ducks Unlimited). He provided the hard cash to hire federal and state biologists and game wardens to provide the management that let American waterfowl have a chance to recover—even to thrive in some cases.

And lest you misunderstand, he did all that essentially for himself and he is still doing that essentially by himself. In the case of waterfowl, it was (and is) largely a

Roland Clark

sport hunter's tab. He picked up the tab and funded the comeback. The sport hunter has been willing to part with dollars for this result, and he has every reason to be proud of it.

The duck hunter is still giving, along with other waterfowlers. This year he gives in a big way—in the form of steel shot. For years, lead shot has caused heavy losses of waterfowl. It happens this way, ducks and other waterfowl ingest the spent shot while feeding. The lead, when absorbed by the digestive process, develops into lead-poisoning.

In certain places where ducks and duck hunters concentrate the problem can become very serious. This occurs on those marshes where heavy soil types prevent the lead shot from sinking and becoming unavailable to feeding ducks. The duck hunter has listened to the experts and is cooperating in experiments which strive to control the lead-poisoning.

The waterfowler, acting on the advice of the people his money pays to manage waterfowl, has—in many places along the Atlantic seaboard—begun to hunt waterfowl exclusively with steel shot.

For the non-hunter, let me tell you this is no little thing. Steel shotshells are very different from the old lead shotshells. Steel shotshells are considerably more expensive (costing around $8.50 per box as opposed to $4-5.00 per box of lead shells). Steel shot is not recommended for double-barrelled shotguns and is less effective at longer ranges than lead shot.

The 1976-1977 Outlook in Georgia

Georgia is in the Atlantic Flyway, and the Atlantic Flyway will have a pretty good supply of ducks this year. Wildlife managers base this prediction on population counts taken during spring and summer months in the breeding grounds of Canada and the northern states. These counts show the waterfowl population of the Atlantic Flyway to be pretty good, but some five percent below the long-term average.

There has been a general decline in waterfowl numbers for years along the Atlantic Flyway. Why? Because the vital breeding grounds in northern North America have been severely reduced by human encroachment. Another important loss has been the southern states' wintering grounds for waterfowl. The combination of marsh, swamp, and river bottom habitat loss, both in the breeding and wintering grounds, plays the significant role in the downward trend of waterfowl numbers.

Here in Georgia, unofficial reports show the native wood duck populations to be about the same, if not slightly better, than a year ago. Why? Because of proper hunting control, because of the beaver and his pond-building habits, and because the destruction of Georgia's swamps and marshes by man has slowed. Duck nurseries in Georgia seem to be holding their own.

1976-77 Duck Season in Georgia

Duck season opens in Georgia November 17th at 12 o'clock noon. The first phase of the season runs from November 17th through November 29th. After this first phase there is a closed period from November 30 through December 14. No duck hunting (except for sea ducks) is allowed during this closed period. The season opens again on December 15 and lasts through January 31. December 15 the season again opens at 12 o'clock noon. Except for the half-day hunts on November 17 and December 15, shooting hours are from 1/2 hour before sunrise to sunset. On the half days of November 17 and December 15, shooting hours are from 12 noon to sunset.

Bag limits are as follows: five daily, ten in possession. Within this limit, hunters are allowed to take no more than two wood ducks per day, and to have no more than four in possession. Only one black duck per day (two in possession) is allowed, and only one canvasback *or* one redhead per day is allowed (with only *one* in possession).

In addition to the regular duck bag, there is an extra seaup limit of two daily (four in possession) throughout the season in areas east (seaward) of the Intracoastal Waterway in Chatham, Bryan, Liberty, McIntosh, Glynn and Camden Counties.

Further, for nine consecutive days from November 17 through November 25, 1976, there is an extra bluewing teal limit of two daily (four in possession) in addition to the regular bag. Note this teal limit lasts for only nine days, while the first phase of duck season lasts longer (November 17 through November 29).

Inland Hunting

Duck hunting away from the coast depends heavily upon available aquatic habitat. Hunting occurs on both lands and waters of public and private domain. You had better be sure which is which before you go, for duck hunters trespassed upon are some of the sourest people you'll ever meet, second only to landowners trespassed upon. To avoid ugly scenes, find out who owns the land and get permission.

The wood duck reigns supreme in inland Georgia. It is the most common duck, although mallards, black ducks, pintails and even some diving ducks occur. Here are some favorite locales for inland duck hunting:

Swamps. Some of the finest d shooting to be found in the Sout in selected Georgia swamps. Th are surprises to the newcomer, for swamps occur all over the st and not just in low-country so Georgia. For the purposes of articlc, there are two types of swa which offer hunting opportunities

River Swamps and Sloughs. In snake-like windings of flat cou rivers in south Georgia, natural bow lakes, cutoffs and other me derings produce many swamps sloughs. At times, these river a hold amazing numbers of waterfo

Some of the ox-bows grow la extending to hundreds of ac These swamps furnish both na duck and migrant duck winte grounds and can be hunted like standing timber of Arkansas or still waters of the Midwest (comp with boat and decoys).

The larger rivers of south G gia, like the Altamaha and Ogeec have portions of their stretches parallel and perennially wet fl plains. These are the great r swamps of south Georgia. L numbers of waterfowl winter a these river swamps and furnish times, exceptional hunting oppo nities.

Beaver Ponds and Swamps. In last thirty years, *Castor canade* has made a tremendous comeba Georgia—another product of v life management. The beaver is r in some areas of Georgia, con ered to be a pest. Timbermen foresters will tell you woefully fighting losing battles with these termined critters, and will cry lost timber. To a duck hunter lis ing to these sad tales, "One m poison is another man's food," co to mind.

The truth is the beaver mad possible to have an adequate c population (especially wood du

areas of the state that hadn't seen duck in fifty years. The Piedmont ction of Georgia, particularly, is plete with 10-100 acre beaver onds".

Beaver ponds are not only valu-le for ducks, but have generally ntributed a variety of wildlife to eas that otherwise would be "sub-ban sterile". Many a suburban izen unknowingly goes to bed less n a thousand yards away from a lking bobcat. Needless to say, it is both the interest of the bobcat and e citizen that they each remain un-vare of the other. Swamp birds, all animals, owls, marsh hawks, d pileated woodpeckers occupy e beaver's pond—guests of an-ner success story of wildlife man-gement.

Such beaver ponds may be open all. Most I know of, however, are private property and are jealously arded. Permission to hunt may be nted if the hunter takes the time look up the landowner and ask it.

Man-made Reservoirs. Such reser-rs range from small watershed es, built with Soil Conservation Service assistance, up to the giant reservoirs of the Corps of Engineers like Lakes Hartwell, Walter F. George, Clark Hill, Seminole, West Point and Lanier.

Some smaller watershed lakes offer good opportunities for "pot hole" shooting, much as do the river sloughs of south Georgia. Unfortunately, many of the so-called hygenic practices of building these watershed lakes denude the bottoms and banks of natural vegetation. The banks are often replanted with pastoral grasses. Thus, the older a watershed lake, and the less it has been looked after by those intent on keeping a swimming-pool image, the better it is for ducks.

These small lakes are sometimes filled with large rafts of resting ducks, headed further south after a day or two of dabbling. An interesting note: while the lakes themselves are built in part with federal funds, they are still private property. Thus, be careful, that beautiful watershed lake with the huge raft of ducks may be open to you only if you have permission of the landowner.

Some of the larger Corps of Engineers/Georgia Power Company lakes are havens for waterfowl. In fact, many of the National Wildlife Refuges are located on them (especially those not on coastal areas). An encouraging note of inter-agency cooperation: the Corps of Engineers works closely with the U.S. Fish and Wildlife Service to maintain proper water levels so that waterfowl managers can produce crops for the ducks the refuges hold.

The large lakes like Hartwell, Seminole and George, can and do hold ducks in the winter both inside and outside of refuges. Most of these ducks are dabblers like mallards and pintails, but large numbers of diving ducks (scaups, ringnecks, etc.) are commonly seen during winter.

Both the watershed and giant lakes offer exceptional duck hunting at times. The classic decoy spread, even the hundred or so decoys for diving ducks, works well on these waters. A lot depends on which lake you're considering and where you set up your blind. In this case, as with all others, it's best to duck hunt with a native.

Farm ponds are good bets, too. Especially the older ponds left woody and ragged on the bottoms and edges. The new, aseptically-swept farm pond, a daub of water in a green cow pasture, has all the allure for a duck of a child's plastic wading pool. Forget this type of pond, or wait until it gets right with nature.

Rivers. Float trips on Georgia's rivers are good ways to collect your bag limit of ducks. Georgia has many exciting opportunities in this regard. The wide, slow-moving river of south Georgia is ideal for jon-boat and canoe float trips for ducks. Such a float trip is also, and at the same time, ideal for squirrel hunting and fall/winter fishing.

The larger rivers of the Piedmont and northwest Georgia offer hidden and unexpected duck hunting opportunities, too. These rivers, however, see much more use by float-tripping duck hunters than the ones in south Georgia.

A note of caution: Large, navigable rivers (navigable as determined by the Corps of Engineers) are in the public domain. River access may not be, so be careful. Further, smaller, non-navigable streams and rivers may be closed to outsiders. Before you float a small stream in north Georgia, check with authorities to see if you'll get yourself in trespass trouble.

Coastal Hunting

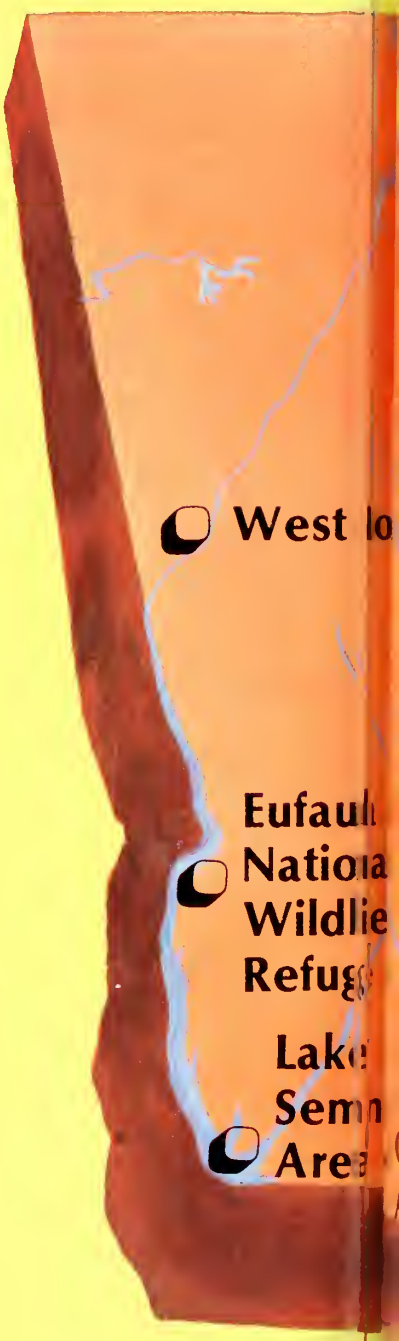
The Georgia coast abounds in waterfowl during the winter, but there is a catch. Georgia's expansive marshes make it ideal for ducks, less so for duck hunters. The simple fact of millions of acres in which to feed effectively disperses the ducks and frustrates the neophyte duck hunter.

Coastal Georgia has a wide variety of duck populations, too. The dabblers (mallards, teal, etc.) are often mixed with the divers (scaup, redheads, canvasbacks, etc.). The wood duck is populous, although the presence of so many other ducks makes him seem scarcer. Sea ducks are found both nearshore and offshore (scoters, old squaws, etc.).

In some areas of the coast there

Managed Waterfowl Areas in Georgia

Art by Mike Nunn



Fishing Creek Area
Savannah National Wildlife Refuge
Altamaha Waterfowl Area
Grand Bay Area

are immense concentrations of waterfowl. The federal and state refuges which occur on the coast hold large numbers of ducks. These refuges open portions of their area to hunting and this hunting is tremendous in terms of *seeing* ducks. Shooting ducks is another matter, for these coastal waterfowl are usually veterans of early seasons in northern states and quickly learn to fly and when not to, much to the dismay of the would-be hunter.

Federal, state and private lands along Georgia's coast are restrictive, with a capital "R". It has only been in this century that the public has had any formal access to the sea islands. Many of the publicly-owned islands allow only tightly-controlled hunting for deer (i.c. Sapelo Island) or none at all (Cumberland National Seashore). People have been shot for trespass on some of these privately-owned islands (and not all of the shootings have occurred in the distant past).

The best bet for the duck hunter new to this area to sample the hunting on the coast is to apply for the managed duck hunts sponsored by the federal and state waterfowl refuges. You'll meet a lot of nice people on these hunts, and chances are you'll develop other hunting opportunities—it really depends on you.

Duck Hunting Information Sources

Statewide Duck Hunting Information:
Gib Johnston, Information Chief
Georgia Department of Natural Resources
270 Washington Street, S.W.
Atlanta, Georgia 30334

Southeastern States' Duck Hunting Information:
Don Pfitzer, Public Affairs Officer
U.S. Fish and Wildlife Service
17 Executive Park Drive
Atlanta, Georgia 30329
(404) 526-4675

Coastal Duck Hunting Information:
Jingle Davis, Coastal Information Officer
Georgia Department of Natural Resources
P.O. Box 1676
Brunswick, Georgia 31520
(912) 274-7330

National Wildlife Refuges (which allow duck hunting in Georgia):

Eufaula National Wildlife Refuge
Box 258
Eufaula, Alabama 36027
(205) 687-4065
Eufaula Wildlife Refuge has its main office located in Alabama, but the waterfowl hunting area in Georgia. A managed hunt conducted every Saturday dur the season. Applicants for managed hunts must send th name, address and hunting pa ner (two to a blind). Applica should also indicate the prefer date to hunt and pick altern dates. Only one application hunter is allowed. Fee is $6. per blind. Shooting hours are fr 1/2 hour before sunrise to 11: a.m. *Steel shot is required:* gauge shells with steel shot m be purchased at the refuge.

Savannah National Wildlife Refuge
Route 1
Hardeeville, South Carolina 29927
(803) 784-6757

Savannah Wildlife Refuge has main office in South Carolina, t the waterfowl hunting area is Georgia. Managed hunts occ during each Thursday, Friday a Saturday of the season. Appl cants should request applicati form for the hunts. There are blinds as such, each hunter pic his own area. Officials stress tl the hunting area is subject to tid as high as 8 feet. Hunters not miliar with the area may fi themselves walking out, leavi boats/decoys, etc. behind. St shot required *but not sold refuge.*

State Wildlife Management Areas

Altamaha Waterfowl Area
Game and Fish Division
Game Management Section
P.O. Box 1676
Brunswick, Georgia 31520
(912) 437-4569

Managed hunts on Wednesda Saturdays and last day of seas Hunting only by permit which issued after written application made (send check or money or for $5.00 with application). H orary license holders should se license number in lieu of $5.(Hunters must hunt from blinds a assigned. Hunting hours from 1 hour before sunrise until no Hunters limited to 25 shells less. *Steel shot not required.* A

)licants accepted on first come)asis. Hunters must be at check station no later than 5:15 a.m. on morning of hunt.

Fishing Creek Area
Game and Fish Division
Route 2, Box 138-A-2
Thomson, Georgia 30824
(404) 595-4211
Managed waterfowl impoundments are opened for hunting on Saturdays only during season. This public hunting area has 2,000 acres of Corps of Engineers land in Lincoln and Wilkes Counties at junction of Fishing and Morries Creeks on Clark Hill Reservoir. Good waterfowl hunting in beaver ponds. *No permit or steel shot required.*

Grand Bay Area
Game and Fish Division
Route 1
Fitzgerald, Georgia 31750
(912) 437-4569
Managed waterfowl hunting Saturdays only during season in Compartment A. *No permit or steel shot required.* This area has 9,000 acres of national forest lands in Lowndes and Lanier Counties. Flat pinelands, dense palmetto, and hardwood creek/swamp bottoms.

Lake Seminole Waterfowl Public Hunting Area
Game and Fish Division
2024 Newton Road
Albany, Georgia 31705
(912) 439-4254
Lake Seminole Waterfowl Area has 5,000 acres of U.S. Corps of Engineers shoreline and islands scattered around edges of Lake Seminole. Good duck hunting. *No permit or steel shot required.* No hunting allowed within marked boundaries of 630 acres of refuge at fork of Spring Creek and Flint River. Open during season.

West Point Wildlife Management Area
Game and Fish Division
Route 3, Box 7A
Fort Valley, Georgia 31030
(912) 825-6354
Waterfowl hunting allowed only on Saturdays within period of December 18-January 15, during the season. West Point WMA has 6,200 acres of hardwoods, pines and cutover areas. *No permit or steel shot required.* It is adjacent to West Point Corps of Engineers Reservoir in Heard and Troup Counties.

Richmond Hill Hatchery makes...

Stars out of Stripers

By Rebecca N. Marshall

Photography by Bob Busby

The striped bass, or rockfish, is a perennial favorite f coastal fishermen. From Savannah to St. Marys, this sh has often frustrated—and sometimes rewarded—ie most able anglers.

Now, rockfishing is no longer restricted to the oastal river systems. The Department of Natural esources has established a program to produce and ock young stripers in freshwater reservoirs around the ate. So Georgia fishermen far from coastal rivers and tuaries can take advantage of their chance to tangle ith a fighting striper.

The Richmond Hill Fish Hatchery, near Savannah, ouses Georgia's striped bass research, production, and ocking program. Biologists headquartered here study e state's striper populations to determine how and here they can most successfully stock these fish.

The discovery which led to the Georgia program ppened outside this state, though. When the Santee-ooper Reservoir was created in 1941, stripers were pped upstream in a South Carolina river. The fish rived in the freshwater environment, and many people gan to wonder if they had always lived only in the er. And, if so, if the same might be true elsewhere the Southeast.

The stripers' natural range extends from Canada wn to northern Florida, and from western Florida to uisiana. Over much of this area, the fish are adromous. That is, they spend most of their lives in twater but, like salmon, go upriver to spawn in shwater.

In Georgia, however, as in South Carolina, striped ss appear to live entirely in a freshwater environment. ey stay in coastal river systems and never go into ocean itself. In the spring they spawn in the upper al zone, and after spawning, continue upstream on a ding run. Then, they head back downstream and by umn return to the estuaries.

And from these estuarine areas, biologists collect pers for the stocking program.

The process begins on the Savannah River, where y gather striped bass by electro-fishing. An electric rent delivered into the water temporarily stuns the s . They immediately float to the surface and are ked up. This generally doesn't harm the fish, since y can stay out for several minutes with no ill effects.

When the fish are collected, biologists first determine r sex. They then transport the fish to the hatchery, re they work primarily with the gravid, or -bearing, females.

Biologists check the eggs before they are released, to rmine if they are ready to be fertilized. If they haven't yet reached this stage, hormones are injected to speed up ovulation. With these hormones, biologists can do in two days what may take as long as three weeks in nature.

Since the brood fish isn't in her natural environment, she has to be helped along. When her eggs are fully ripe and ready to be passed, biologists numb her by spraying an anesthetic on her gills. They then strip the eggs, or force them out of her.

Once the hatchery workers have finished with the brood fish, they make every effort to return her to the river, so she can live naturally and spawn again.

As soon as the eggs are removed from the female, biologists mix in milt from the males. These two procedures must be performed almost simultaneously, to insure a high degree of fertilization.

The fertilized eggs are put into glass jars in which water runs slowly but constantly, keeping the eggs afloat and maintaining a steady water temperature. Biologists monitor the jars continuously, so that any potential damage will be prevented. For example, if the temperature changes, even very slightly, these fragile containers of life may die.

The embryos begin developing within two hours. The transparent, pale green eggs begin to divide and take on form, although for several days there's little resemblance to the fish they will grow to be.

Shortly after hatching, the fry swim from the jars into an aquarium, where they develop quite rapidly. They change almost continuously, and as they grow, they absorb the yolk sac. It nourishes them for about five days, until their digestive tract is fully developed. Then the fry are ready to begin feeding on tiny brine shrimp.

Small stripers are voraeious, even at this early stage, and eat every three to four hours.

The next move for the young fish is to one of the hatehery rearing ponds. But they aren't just tossed out of the ealm, sheltered aquarium environment. The biologists give them a ehanee to adjust to their new home by tempering the aquarium water for at least one hour before they release the fry. That is, they gently mix pond water with the water eontaining the young stripers. The temperatures equalize, so that when the fry swim into the pond, the shoek of transfer isn't very great.

The ponds are monitored daily for ehanges—however slight—in temperature, oxygen eontent, pH balanee, and many other elements vital to the survival of the young fish. Sinee 100,000 fry inhabit just one aere of a pond, even a small problem eould kill thousands of them.

The young fish live in these ponds for 30 to 45 days, until early summer, when the ponds are drained. Most of the fingerlings, by now about two inehes long, are ready for stocking in reservoirs around the state.

Aside from their sport value, striped bass make a very important eontribution to the environment of the reservoirs. Rough fish, that is, those that man does not eat, have become over-abundant in many lakes. Stripers are predators, and they feed on these fish that are using more than their share of spaee and food. By keeping [illegible] the gizzard and threadfin shad at an [illegible] rockfish help make way for other, [illegible] fish.

A number of Georgia reservoirs, from mountain lak[illegible] to those in south Georgia, now have striped bass as par[illegible] of their population. But, like the fish that naturally inhabit the waters, stripers appear in varying numbers in eaeh lake. Different reservoirs are stoeked at differen[illegible] levels, so the striped bass don't invade a niehe where other fish are already established.

Stripers aren't the only fish in the Department of Natural Resourees stoeking program, though. Female striped bass have been erossed with male white bass to produee a hybrid. This fish is being plaeed in Georgia reservoirs. And although these hybrids eurrently are being evaluated from a biologieal and eeonomie standpoint, they have some definite advantages. They are hardier and ean better survive the transfer from a hatehery home to a large body of water. They eat a variety of the forage fish in reservoirs. Their initial growth rate is faster than that of stripers, although they don't get as big as the largest striped bass. But they tak[illegible] a hook more readily, whieh helps make up for their smaller size.

Striped bass receive a great deal of attention at the hatchery. Every effort is made to return them to the wi[illegible] after the eggs have been stripped.

Thousands of striped bass, stoeked in reservoirs throughout the state, are thriving in their new homes. And the lakes are flourishing, too. The two have prove[illegible] eompatible, so it looks like stripers are in the lakes—to stay.

The New Masters

hotography by Cathy Cardarelli

Text by Susan K. Wood

The New Masters

Bending her oching back over the century-old loam, she reaches and pulls, reaches and pulls, turning brightly colored hame-spun threads into a masterpiece. An elderly neighbor, "a real master," she says, showed her how to comb the wool, spin it into threads, even taught her how ta dye the threads with plant juices. Sa this is a masterpiece, **her** masterpiece. Her face glows with pride.

Clang, clunk, clang, clang. Heat and noise fill the dimly lit shop where the young blacksmith hammers, forges and grinds metal nothings into samethings. Still a novice, she talks of her grandfather whom she vaguely remembers. "He was a blacksmith, too, and a darn good one. Made those andirons aver there. But later on he couldn't make enough to support a wife and eight kids, so he went to work in a factory in town. Died a few years later . . ." She reasons she's picking up where her grandfather left off.

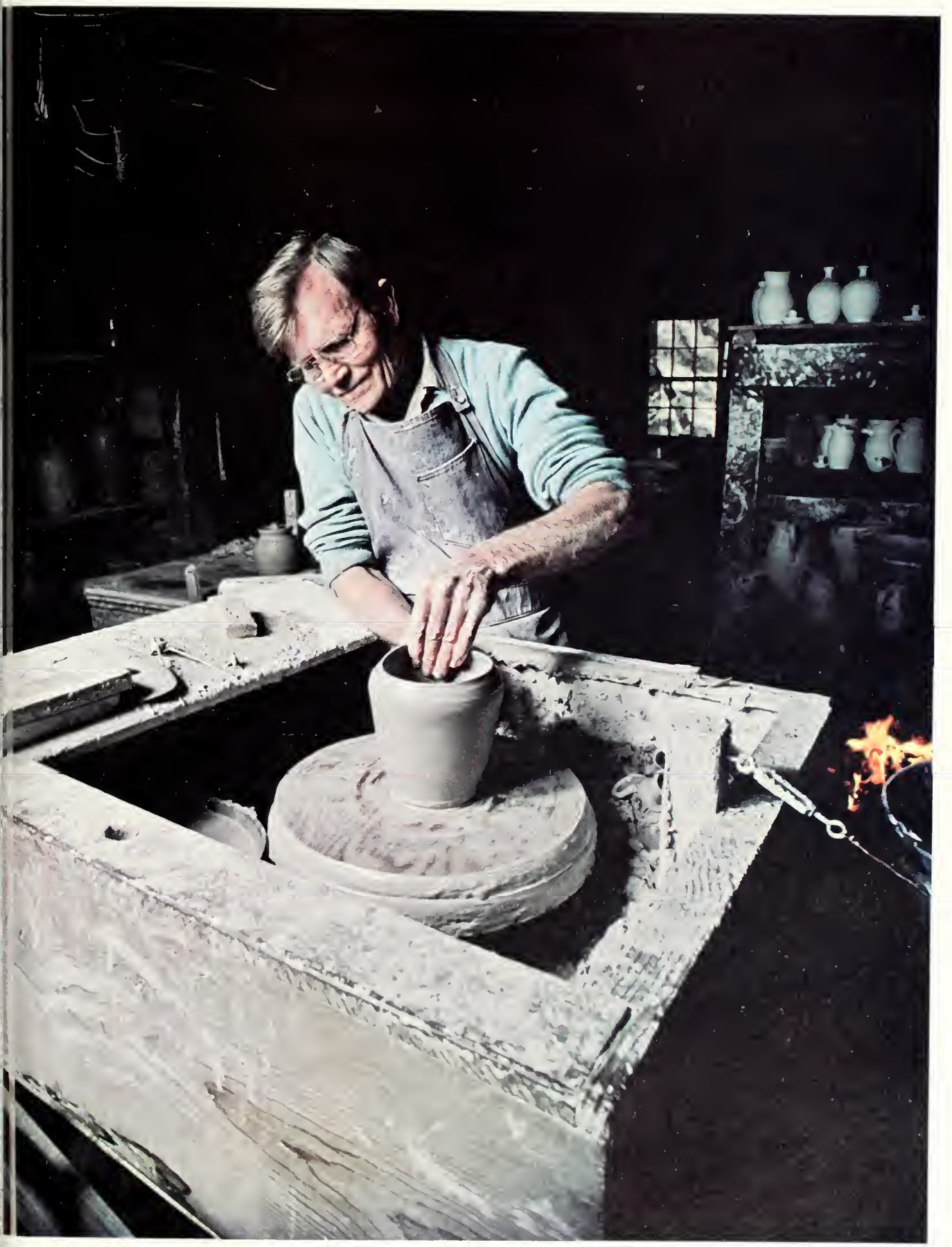
All aver Georgia such masters, the new masters, revive lost lifestyles. Like the weaver and the blacksmith, all have a special feeling about their craft. It isn't just work. It's their life.

They're a new breed of falk, these new masters. One look at their intent yet serene faces and careful hands tells their story.

The new craftsmen have braught back old-time ways of 'smithing and weaving and other crafts which were once backbones of Georgia's rural-based economy. But times changed, and these occupatians just weren't profitable anymore. **Profitable.** Sa our grandfathers and grandmothers turned to machines as their onswer to paverty. Factories flourished and times got better. But there remained an emptiness . . .

Now the cycle is reversing. Some have found that money just can't buy everything. Some are returning to the crafts of old.

The new masters have found that feeling of self-worth. And they've done us all a favor, too. They've saved a bit of our preciaus heritage, revived something of a culture that was almost lost.



Skidaway Style Teaching...

Lets Nature Speak for Itself

By Jingle Davi

Photography by the Autho

'I am Monster Sam," said Sam Katziff to a group of g n school science students who were boarding the s earch boat at the University of Georgia's Marine e ources Extension Center on Skidaway Island near annah. "I am captain of this vessel and I expect my ers to be followed."

am frowned fiercely, but his Captain Bligh routine a received with nonchalant silence (and a few secre- grins) by the students, who wiggled like contortion- as they strapped on bright orange life jackets.

he students, who arrived the night before, had al- a ly met the unique style of teaching featured by the i laway staff. As the Center's irrepressible director, i Hon, explains. "You have to employ unusual teach- ig methods when you're trying to cram a year's worth ceanography into a single day's crash course."

With minimal shoving and nudging, everyone found a pa e to sit on the boat. Some perched on the rectangular s age lockers which double as benches; some lounged t he deck, leaning back against the wire mesh barrier which runs around the deck and keeps people from falling overboard.

The Center's boat is a beamy, barge-type craft, riding high on pontoons and powered by twin outboards. It is ideal for large-group trips. Obviously, the boat isn't an ocean-going vessel, but as Will explained, you don't need to go miles offshore to study oceanography.

"Probably inshore research vessels are more pertinent to the study of oceanography than those big, fancy ships," he said. "A huge percentage of all salt water animals spend their lives in the waters close to shore. By comparison, the open sea is a desert."

Will wanted the students to have a first-hand look at the variety of marine life abundant in Georgia's coastal waters. But as he'd told the students during a lecture session earlier that morning, "Since the water there isn't clear, we can't go down and observe marine life in its natural habitat. So, we'll go out and drag up a chunk of life."

As Sam guided the boat through a winding marsh creek near Wilmington River, his co-instructor Terry Chesnut took over the educational portion of the program.

"We're going to make a few drags with the otter trawl," he shouted above the engine noise, indicating a pile of net which slumped in a gray heap on the stern deck. "We'll drag for a few minutes, then bring in the net and see what we've got."

Ten minutes later it was time to haul in. Terry operated the winch as Sam idled the engines. The students craned their necks as the dripping net rose out of the water, its lower part bulging with a grab bag of marine organisms.

Terry carried the net to the broad foredeck, where everyone would have a better view, and untied the net's purse strings.

A damp pile of kicking, flopping, snapping sea life cascaded on deck. There were blue crabs, starfish, flounder, tongue sole, jellyfish, seaweed, squid, shrimp. The crabs scuttled around madly, claws poised for pinching, and the students sitting on deck prudently backed away. Terry pawed bare-handed through the pile, selecting samples of each species to show the group. He pointed out the catfish's dangerous barbs; the stinging tentacles of the jellyfish; the strange, migrating eyes of the flounder.

"This is your distant cousin," he told the students, holding up a shimmering blob of glup called a ctenophore.

By this time, the students were wholeheartedly into Terry's lecture, interrupting frequently with questions or comments. Many reached out and handled starfish or soft shelled crabs or diamondback terrapins.

After each creature was examined and explained and relegated to a bucket for later study, Terry dropped the net overboard again. In a few minutes, a new chunk of life was dumped on deck.

There were protests when Sam announced it was time to head for the Center for lunch. But the wind had come

Will Hon, educational director of the Marine Extension Center, fascinates students with his low-keyed lectures and his associated free-hand drawings during the lectures.

up and the water was choppy, so Sam held his course for the dock. "After lunch, we'll have a talk and film at the Center, then you're going on a scavenger hunt," Sam said.

John Kunze, the Center's assistant director and manager of the dorms and kitchen, had a hot lunch waiting in the spacious cafeteria dining hall. Kunze is a bluff, outgoing Scotsman who never appears in public without his tam o'shanter. He has his own method of dealing with youngsters, based on gruff teasing and orders shouted in a deep, booming voice. The students pretend to cower in terror whenever Kunze is around, but as with Captain Sam, they seem to know the staff members are all on their side.

The man apparently responsible for Skidaway Center's special style is Will Hon, whom one imaginative student described as a "large leprechaun." As Will launches enthusiastically into a talk, accompanying himself with lightning-fast—and extraordinarily competent—sketches on a large drawing board, the student's description is apt.

He somehow manages the difficult task of pulling together all the varied research programs, advisory services and educational activities offered by the Center, a branch of the University of Georgia and a part of the federal Sea Grant program. Almost every weekend the dorm is packed with students, teachers, conservation club members. Area school children are frequent day visitors to the facility, and though the Center's location is fairly remote, hoards of tourists somehow find their way out to the island for a tour.

The Center's modern buildings, on a 670-acre wooded [illegible] looking the Wilmington River and Chatham [illegible] share the property with the Skidaway [illegible]tography next door. The main Center building houses laboratories, offices, conference room and the popular exhibit room, where sea life of the Georgia coast is displayed in giant salt water aquariums.

After lunch, the students gathered in the conference room for a movie and brief talks by Terry before going on the promised seavenger hunt.

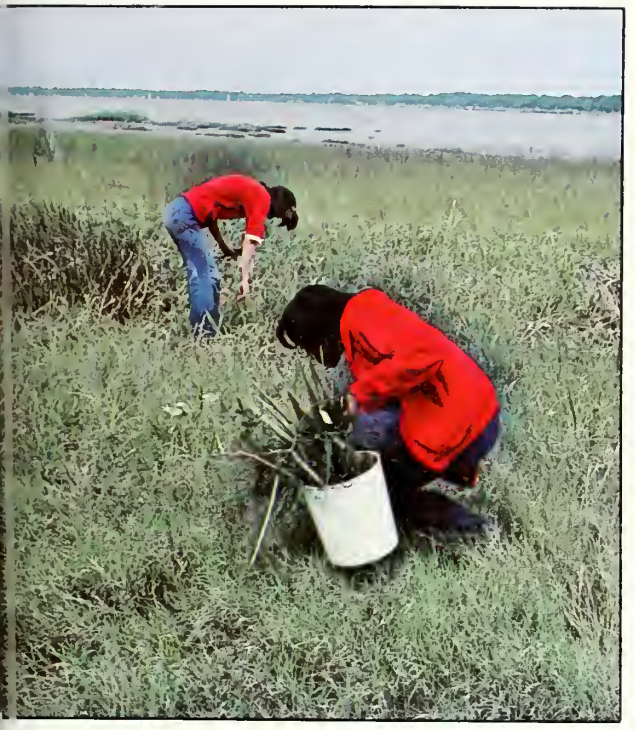
"This time, we're taking you out in the marsh," Terry said. "You'll divide up into four groups, and we'll give you half an hour to collect all the marsh specimens on your group's list. The group that gets the most right will win the scavenger hunt."

His instructions aroused fiercely competitive feelings among the students as they started plotting with their individual group members how to win the hunt. Two brothers, placed in different groups, immediately forgot brotherly love and each vowed to outdo the other.

By the time the students reached the marsh collection site, team spirit had reached fever pitch. The kids spread out over the marsh, pouncing on astonished fiddler crabs, snatching up snails, grabbing handfuls of marsh soil and samples of marsh plants. Never have novices in a marsh ignored stinging sand gnats, sticky mud and sweltering sunshine so completely to collect so much so quickly.

Terry and Will instructed the kids to construct a model of a marsh with the specimens they'd found, telling them to put the plants and animals in the appropriate zones—grasshoppers and oxeye daisies, for example, in the zone closest to high ground; Spartina grass in the zone nearer the water.

"This darn crab won't cooperate," one student wailed as he tried to set up his group's model. "He keeps crawling out of the right zone. Stupid crab—don't you know you belong in the high marsh and not down there in the low marsh?"



During the hunt, Will often called the kids over to see usual specimens which his trained eyes seemed to spot h a casual glance. Hearing a clapper rail chattering in dense Spartina near the river, Will clapped his hands dly in an attempt to flush the bird. The rail's response s a loud, raucous squawk. Will smiled and shrugged. uess she's giving me the Bronx cheer," he mused.

After the hunt (winners would be announced after ner, Terry said), the group returned to the Center, rying buckets of marsh life. Lab work was on the ning schedule, and the kids would have a chance to mine the things they'd collected on the boat trip and venger hunt.

Although the day started early and was packed with itement, nobody was too tired to make it to the lab. l set up dissectoscopes and microscopes, and, showg no signs of squeamishness, the students seized scalpels and began to eviscerate sting rays, squid and fish. er dark, Will led a small group down to the dock to er a plankton net, and soon everyone was discoverg the world of miniature creatures which populate a le drop of sea water.

"Hey, I've got a hairy paramecium here—or maybe a copepod," somebody shouted.

"This one looks like the monster that ate Chicago," ther called, referring to a fierce creature smaller than npoint.

Will moved from one microscope to the next, sharing students' enthusiasm for each discovery as though , too, were seeing the tiny creatures for the first time. was after ten o'clock when Will finally called a halt, though most of the students' eyelids were drooping fatigue, they protested that they were good for her few hours, at least. Reluctantly they trooped to the dorms and to bed. Most would be on the road for Atlanta and Athens early the next morning. Their Skidaway weekend was over.

Students quickly discover that there's more to the marsh than meets the eye. Right: *Crabs, small fish and sessile bottom-dwellers overcome the stand-offish attitude of students.*

Certainly the day hadn't taught them everything there is to know about oceanography and the coastal environment. But because of the Center staff's enthusiastic methods of teaching, the students were totally turned on to the subject. Now, when they read about a coastal river, they'll probably remember snapping blue crabs on the deck of the Center's boat. When they study marshes in school, they'll hear a clapper rail give a Bronx cheer. Each student left Skidaway with good memories and with a good starting place for future studies of the coast.

The Skidaway Marine Resources Extension Center serves many people in many ways. Teaching young people the joy of learning is undoubtedly one of its most outstanding accomplishments.

Small Game

Making predictions about the relative abundance of small game is a risky undertaking. For the most part, those creatures classified as small game (anything not a deer or turkey) are very localized animals, and conditions which affect the small game populations may vary from one locale to another. Weather conditions may favor a given species in one area while decimating that same species in another.

Above all else, the quality of habitat for a certain species is the key to the population. This factor varies from species to species with one type of habitat producing some species better than others.

Generally areas which have produced well should continue to do so unless a change of conditions has occurred. If that has happened, all bets are off.

Therefore weather, habitat and former productivity of an area must all be considered in formulating a small game forecast, with the best guess being made from whatever data is available. Subjective predictions are made about the various species in [illegible] regions of the state based [illegible]tion and general knowl[illegible] and past weather

Ruffed Grouse

Outlook for 1976-1977

By Aaron Pass

Art by Liz Carmichael Jones

Bobcat seem to be numerous statewide, but the average hunter will seldom see one unless he is actually hunting bobcats. They are nocturnal, and the most productive hunting methods involve either a varmint call or a pack of hounds trained for bobcat. Either technique demands a permissive landowner and a clear understanding with the local conservation ranger.

Fox hunting is essentially the same as bobcat hunting in terms of hunting methods and relative abundance. The same cautions about trespass are also in order.

Grouse are in Georgia more or less because of an accident called the Appalachian Mountains. They are a northern species and are found only in the mountains where higher elevation makes possible a duplication of northern climate. This year's reports indicate good reproduction of young birds, but grouse hunting is unpredictable and only the season will tell.

Opossum is another nocturnal creature whose population is doing well statewide. A good possum dog will produce anywhere in rural Georgia.

Quail are the state's premier game bird and draw more publicized attention than all other small game species put together. It is no secret that, on the whole, the state population of this bird is on the decline. This decline will probably continue as more and more of the inefficient farming practices of yesteryear are replaced by suburban sprawl and large-scale clean farming for grain and timber.

Despite these trends, this year looks favorable for quail. The dry summer was good for rearing young quail, so this year should be better than last in most areas. North Georgia quail hunting is mediocre at best, while Middle Georgia provides good shooting in agricultural areas. In the classic quail country of South Georgia finding a place to hunt will be the main difficulty, since populations are reported to be good.

Rabbit, like quail, are much more numerous in Middle and South Georgia where they are almost a pest. North Georgia is still poor for rabbit hunting although this year looks better than last.

Raccoon, like possum, are where your dogs tree them. In North Georgia the population is fair; in South Georgia it is excellent.

Squirrel are one of the localized species that depend on a very specific habitat—they are found primarily in hardwood timber. In North Georgia where large hardwood stands are common, the squirrel population is good but spread out. In Middle and South Georgia where pines are replacing hardwoods, squirrel populations are concentrated on the creeks and drains where hardwoods remain.

Due to the past summer's dry weather most species of small game look better than usual this year. But the improvement will not be drastic, since quality of habitat is by far the most important factor in determining the relative abundance of small game.

Bobwhite Quail

Big Deer Contest 1975-76

The Georgia Big Deer Contest is jointly sponsored by **Outdoors in Georgia** magazine of the Department of Natural Resources and the Georgia Wildlife Federation. Judging takes place after June 1 each year to evaluate the deer trophies taken in Georgia during the previous hunting season. Winners are chosen on the basis of antler size in two categories, Typical Rack and Nontypical Rack.

All racks are measured by wildlife biologists of the Game and Fish Division using the Boone and Crockett system of measurement. Any hunter who kills a buck with an unusually large rack should take it to the nearest Game Management Regional Field Office for measurement after the antlers have air-dried for 60 days. The Boone and Crockett system allows for the measurement of all dimensions of the rack and converts these dimensions to a point scale. It **DOES NOT** refer to the number of antler points or projections on the rack.

Winners of the contest will attend the Georgia Wildlife Federation's annual meeting when they will be awarded prizes as part of the Federation Awards program. Each entrant in the contest will receive a Master Hunter Certificate noting the hunter's name, date and place of kill, and final score of antlers.

The following is an updated listing of the rules for the Big Deer Contest which apply to the 1975-76 contest, and the official measuring stations of the contest. It is advised that all entrants call for an appointment to measure their trophies.

RULES

1. Minimum qualifying sizes: typical rack—150 pts.; nontypical rack—175 pts. Measurements to be taken by a verifying official by the Boone and Crockett measurement system.
2. Any hunter is eligible regardless of whether or not he is a member of an affiliated club of the Georgia Wildlife Federation or a subscriber to **Outdoors in Georgia** 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.
3. Only deer killed during the current season will be considered for the contest prizes.
4. Deer killed with a bow and arrow are also eligible, provided they meet minimum requirements. Indicate that archery equipment was used, rather than a rifle or shotgun.
5. PHOTOGRAPH: A clear photograph is desirable if it's one that can be kept by **Outdoors in Georgia** magazine. Please do **NOT** send a photograph that you want returned. All photographs and entry forms become the property of **Outdoors in Georgia** magazine. Please identify all pictures by putting your name on the back.
6. The Georgia Wildlife Federation and **Outdoors in Georgia** magazine reserve the right to re-measure any trophy rack entered, to interview witnesses of kill date, and to refuse any questionable application.
7. Before the affidavit can be accepted, the truth of the statements must be attested to before a qualified officer such as the notary public, justice of the peace, sheriff, municipal clerk, postmaster, member of the state or local law enforcement agency, conservation ranger, etc.
8. There is no entry fee for the contest.
9. Split or repaired skulls will not be acceptable.
10. Antlers may not show removed or repaired points.

All antlers must air dry for 60 days before measurements can be taken. Each applicant must present to the measurer an affidavit noting date of kill.

All correspondence regarding these awards to: Big Deer Contest, Georgia magazine, 270 Washington St., S.W., Atlanta, Georgia 30334. Entries is June 1, 1976.

VERIFYING OFFICIALS

NORTHWEST
William C. Collins
Game Management Regional Headquarters
Route 1
Armuchee, Georgia
(404) 295-6041

NORTHEAST
Hubert Handy
Route 2
Gainesville, Georgia 30501
(404) 532-5303

EAST CENTRAL
Dan Marshall
Rt. 2, Box 138-A-2
Thomson, Georgia 30824
(404) 595-4211

CENTRAL
Richard Whittington
Route 3, Box 7A
Ft. Valley, Georgia 31030
(912) 825-6354

SOUTH CENTRAL
Frank Parrish
Route 1
Fitzgerald, Georgia 31750
(912) 423-2988

SOUTHWEST
Oscar Dewberry
P.O. Box 911
Bainbridge, Georgia 31717
(912) 439-4254

COASTAL
C. V. Waters
Sapelo Island, Georgia 31327
(912) 485-2251

1975/76 CONTEST WINNERS

TYPICAL RACK:
Robert L. Brown, Lafayette, Georgia, 164 5/8 pts. taken on November 28, 1975 in Greene County.

NONTYPICAL RACK:
A. H. Griffin, Tunnel Hill, Georgia, 202 6/8 pts. taken on December 12, 1976 on Coosawattee WMA.

CONTEST ENTRANTS

NOTE: The following individuals entered racks taken in the 1975 season which scored above the minimum qualifying score of 150 pts. for typical racks, and above 175 pts. for nontypical racks. They will receive a Master Hunter's Certificate from **Outdoors in Georgia** magazine and the Georgia Wildlife Federation.

TYPICAL:
- Harry T. Hunter, Moreland—159 1/8 pts., Nov. 22, 1975, Coweta County
- Thomas L. Rodgers, Fitzgerald—157 6/8 pts., Nov. 8, 1975, Ben Hill County
- Howard Stephens, Calhoun—153 5/8 pts., Nov. 1975, Cohutta WMA
- Wayne David, Royston—151 3/8 pts., Nov. 19, 1975, Madison County
- Richard A. Green, Montrose—151 pts., Oct. 18, 1975, Wilkinson County
- Dennis E. Graves, Norcross—150 7/8 pts., Nov. 4, 1975, Putnam County
- David Pitts, LaGrange—150 7/8 pts., Troup County

NONTYPICAL:
- Edward D. White, Macon—180 pts., Nov. 4, 1975, Jones County

STATE RECORDS

TYPICAL RACK:
184 pts., Gene Almand, Riverdale, Newton County, November 16, 1966.

NONTYPICAL RACK:
240 5/8 pts., John L. Hatton, Macon, Monroe County, November 16, 1973.

WEIGHT:
355 lbs. (dressed weight), Boyd Jones, Tallahassee, Florida, taken in Worth County on November 11, 1972.

R. K. Fansler..

A Service Professional

By Bill Hammack

The Midwestern farm youth, born in Missouri in 1916, was living on his family's farm in Illinois when he finished high school in 1934. Left home and went to work in Kansas to make his fortune. Worked for his uncle who was mayor of Garden City and owned a big tire dealership. A dust storm blew through in 1935, and soon after the young man blew out of town too. It was wintertime, cold and raw. He planned to go to Miami where it would be nice and warm and where he could get himself a job. Instead, he got a free ride to Great Falls, Montana, worked as a short order cook in a lunch counter, handling the breakfast trade, slinging pancakes, using up five or six gallons of batter every morning. Then started selling sewing machines. Strictly on commission. Started thinking about his father's cousin, who was head of the mathematics department at the University of the Philippines and [illegible] the young man to [illegible] entertain dreams [illegible] in the gold mines in the northern Philippine provinces. There was, however, a hitch. He didn't have any money to buy a boat ticket. So he joined the U. S. Army. He was offered an Air Corps job in Hawaii or a berth with the Coast Artillery in the Philippines.

He took basic redleg—Coast Artillery—training at Corregidor. He enjoyed the duty. His father's cousin lived in a pleasant home in Baguio. Had a daughter about the young man's age. Nice family. He'd visit there on weekends. Pleasant arrangement, though as a soldier, he didn't have much money: $21 a month less 25 cents to the old soldiers' home, less laundry, less this and that. He got along fine in the Army. Made corporal in his first hitch, which was exceptionally good in those days. But he didn't see at that time a career in the Army. Didn't discover potential for a career in working the gold mines in the northern Philippines either. He took advantage of the short tour for overseas duty, which then was 24 months, came back to the states, was discharged in Sa Francisco, bought himself a new su found that jobs were hard to find 1939. He was working in the co struction business with the compar building Shasta Dam in northe California when on Christmas Eve 1940 he got a message from the Pre ident of the United States, Frankl Delano Roosevelt. It said, greeting You are to report for active duty the Army at Monterey, California February 10, 1941. His feeling th was that if they wanted him in t Army, they could have him to kee They kept him.

Today, looking back over a di tinguished career in the military which he served in every rank, sa warrant officer, from private to fu colonel, and back over five years outstanding service to the state Georgia as colonel of the conserv tion ranger force, Chief Law Enforc ment Officer of the Game and Fis Division of the Department of Na ural Resources, Reginald King Fan ler could wax mellow about near

ır decades of service to country
d to state. But it is hard to picture
is whip-smart, tough, blunt, ag-
essive, wiry man with the eagle-
ak nose and the light blue eyes that
n be colder than splintered ice as
llow.

He does unbend and when he does,
's good, easy company, and his
rmth and wit show through. On
job, he's compassionate and at
same time stern, which is not a
ntradictory description because
metimes sternness is one of the
eper manifestations of compas-
on.

Fansler is admired by many, dis-
ed by some but respected by all.
says, "I've never competed in a
pularity contest. I have tried to do
best job possible."

Joe D. Tanner, Commissioner of
Department of Natural Re-
irces, said, "Colonel Fansler has
formed in a way that has exceeded
r expectations. We knew he had
qualifications and the experience
do the job we wanted done in our
w Enforcement Section. That's
y we went after him. He's a mover
d a shaker. He moved and he shook. He has contributed to upgrading the section at every level. Morale has never been higher. Conservation rangers have a new esprit that's reflected in improved job performance. The conservation ranger corps is now considered by outside organizations to be among the top law enforcement agencies in Georgia. And the conservation rangers know this. That contributes to a man's pride in his job. All this is due, in great measure, to Colonel Fansler's policies. The colonel rates a salute from all of us in the department. He has my personal and professional thanks for a job well done."

Jack Crockford, Director of the Game and Fish Division, said, "Law enforcement in a conservation organization is a specialized field, but it's still law enforcement. Colonel Fansler, with his background, took to conservation enforcement work like a duck to water. What impressed me was that he demanded the best from himself first, then he demanded the best from Georgia's rangers. And he led in the development of a law enforcement agency that cuts the mustard every way you look at it. The state of Georgia can be proud of its ranger force these days. I sure am. For his work contributing to building this force, I tip my hat to the colonel. When I say 'thanks' to him, I say it loud and clear."

When Fansler returned to the Army in 1941, he was assigned, because of previous service, to the military police, then part of the infantry. He became a charter member of the Military Police Corps in the U. S. Army in September of 1941, remained on continuous active duty until September 1971 when he retired as colonel on a disability basis.

Fansler had married Avis Maurine McGibbon of Oklahoma, who earned a masters degree in educational administration from the University of Hawaii and a masters degree in reading education from the University of Georgia. They have three children: Marilyn, now Mrs. Andrew P. Gray, a school teacher in Honolulu; Susan, now with the United States Equal

Col. Fansler's response to almost anything is action, *typified by his personal attention to training sessions.*

Employment Opportunity Commission in Atlanta, and Mark, presently a college student in Illinois.

"When I retired from the military," said Fansler, "I had two daughters in college and a son in school. I didn't feel that my retirement pay would meet the requirements, so I started looking for employment. I was fortunate enough to find available to me the job of chief of law enforcement with Georgia Game and Fish. I was separated from the service on September 15. At 8 o'clock on the morning of September 16, I went to work for the state."

Unbending as he reviewed the past, Fansler said, "I had an excellent career in the military. A happy situation throughout. Fine training. Excellent supervision. Had plenty of opportunity to demonstrate what I could do in terms of application of my aptitudes and initiative. Never really inhibited in any way, shape or form. Without false modesty, I can say my reports reflect that I was successful in the military. My not having a college degree did deny me the opportunity to compete for advanced schooling in the service, which in turn may well have denied me the opportunity to compete successfully for general officer rank. Plus the fact that I was not in combat arms, having been a military police officer, in the service element of the military. I did, however, earn a Bachelor of Science degree at Michigan State University, with a major in police administration before the shouting was over."

Game and Fish's Law Enforcement Section today probably is the most prestigous law arm in the state. Fansler's contributions to this prestige have been significant. Did he apply Army principles and Army motivation in his work with this paramiliary force?

He comments, "I think you'd have to say that my training in the military and experience as a commander in the military certainly prepared me for this job, so far as management command and administrative requirements go. Supervision and command includes application of personnel management principles to give primary consideration to the employee, so that he or she gets the feeling that he or she is important.

"From the cradle to the grave we strive for recognition. If you can find some way to apply the requirements imposed on employees in a manner so that they get recognition, they're going to become oriented towards the needs of the organization as opposed to primary orientation towards the needs of the individual. Thereby, you reap great benefits for the organization and the employee in turn gets his share of the benefits through recognition."

Fansler maintains that "this all has to come through total management in terms of direction in training, and good reliable support for that employee while he's performing the functions you've assigned to him. This includes delegation of authority to act within his level of responsibility and the assurance that he's going to be supported. This gives the person the initiative and the confidence to carry out his function once he is trained. We've done that in our Law Enforcement Section.

"We've been able to do it because of the support we get from the Commissioner of the Department of Natural Resources and the Director of the Game and Fish Division, and because of the ability of the individuals in the system. They've respond beautifully. Almost 100 per cent. shows you what can be done wh everybody works as a team as o posed to responding individually inside and outside pressures. We' eliminated most of the outside pr sures. We've supported the men they've carried out the duties they' been assigned, and on those rare c casions when they are guilty of a of omission, they certainly get eve consideration. You can arrive some compromise on a particular i cident and take corrective measur When the men understand that th are going to get this type of co sideration, then they are much mo secure in their jobs. In the first pla they have the protection of the me system. You add the additional p tection of chain of command a chain of supervision so that th know they are not going to their heads chopped off, or finge chopped off one at a time, for so little boo-boo, then of course they going to function. They are going function beyond the normal level 55 or 60 percent. They're going start functioning at the acceptab level of 80 or 85 per cent of th capabilities. I believe that is wh makes our law enforcement orga zation stand out."

Search patrols are integral parts of conservation law enforcement, not only by truck or plane, but also by helicopter.

The colonel points out that "good aining alone performs miracles to ome extent, by giving the individual kills, giving the individual confi- ence in himself and giving the indi- dual sufficient initiative to func- on on his own as an enforcement ficer. This comes about through lightened supervision and sound aining, which contribute to build- g pride in the organization.

"Certainly we have not achieved l the things we wanted to achieve. here are still opportunities to im- ove the quality of supervision, the ality of the direction, the willing- ss on the part of the supervisor to

onservation law enforcement can be dangerous, and rigorous training in arch and arrest techniques is necessary.

cept his responsibilities as charged, legate that portion of authority to t within the scope of the require- ent at each level, and further, his ility to supervise in a manner in hich he can apply corrective meas- es and acknowledge outstanding rformances. The system is based merit performance. Nobody tells u what merit performance is. The l rewards then must come to the ove average performer or the one o does an outstanding job, one o is sufficiently beneficial to the ganization so that everyone recog- es his performance as outstanding. u have a few of those men. The vards to those few outstanding performers are still not sufficient. We need more attention to incentives, incentive pay, special assignments, improved opportunities on the ladder of progress.

"One area in which I've worked hard is to orient our people as a service agency. We're out there to provide a service, for the Department in support of the Commissioner's policies and procedures and objectives, and to provide a total service to the community in which each individual operates. We provide services to a lot of people who don't want our services. That's one problem with being in a regulatory business. But we also provide service to people who many times are in dire need of our assistance. And for that we get great personal reward."

Fansler retires as chief of Game and Fish law enforcement on December 1. He says, "I will leave this organization with the feeling that I have given it my best turn. Tried to perform my duties to meet the requirements of the Board of Natural Resources and of the Commissioner. I have followed my own personal goals of trying to do the job better than it's ever been done before. That's the standard I set for myself. It's physically and mentally demanding. Fortunately, my family has learned to put up with my way of life, and I've had good cooperation from them for many years. I didn't find the transition from military life to this type of civilian life difficult at all. Basically, I changed my reading habits from Dick Tracy to Mark Trail."

Fansler is grinning. "Mark Trail gave me some good direction. Helped me learn about game biologists, and those sorts of folks. Seriously, when I'm faced with a new job or a new challenge, I try to find out if somebody has walked these trails before and has left something that is of some use in terms of guidance to me. I benefited a great deal in my relationship with the other 16 states in our Law Enforcement Association. Some of these law enforcement people, my counterparts, are extremely knowledgeable and are blessed with a great depth of experience under a variety of circumstances. And fortunately I was able to serve, in 1975, as president of our Law Enforcement Section of the Southeastern Association of Game and Fish Commissioners, and this gave me a good opportunity to get a comprehensive understanding of the business."

Fansler observed, "You know, this is not a one-man show. I've got 230 people—our rangers, our secretaries and maintenance personnel — out there helping to do it. A little bit of reluctance on the part of those people rather than their wholehearted support would put me at the bottom of the barrel in a hell of a hurry. I have been fortunate to have the good help of men like Colonel Whitaker, Major Cline, Major Atchison (Lieutenant Colonel Drew Whitaker, Assistant Chief of Law Enforcement; Major William L. Cline, head of the Northern Region, and Major J. D. Atchison, head of the Southern Region) all of whom are skilled people, all of whom have a great depth of experience. All these things have been blessings to me. I think the other personally rewarding thing is that because of a considerable turnover in personnel through retirements and other changes, we've had a considerable influx of new personnel. This has given me the opportunity to improve the standards by tightening the requirements for the job. That,

Having given the conservation ranger the necessary tools and techniques to do the job, Col. Fansler will long be remembered for professionalism.

coupled with Mr. Tanner's willingness to give me a reasonably free hand within merit system policy, has helped as we seek to change the image of our agency from game wardens in bib overalls and tennis shoes to highly competent, highly trained professional conservation rangers in sharp uniforms. The backgrounds of present-day rangers in terms of education, training and work experience gives them latitude to perform broader basic functions for the benefit of the people of their communities."

A note of pride entered Fansler's voice as he said, "We have certainly proved ourselves to other enforcement agencies. We have proved ourselves to the extent that they have grown to depend on us. And look to us to provide assistance. The state patrol, county sheriffs, and in some instances also the Georgia Bureau of Investigation and Federal Bureau of Investigation and the civil defense and civil disaster teams and organizations throughout the state — all these people have learned to turn to us for skillful assistance on significant [illegible] involving property damage, [illegible] loss of life. I'm very [illegible]ery proud that we don't have to go out and sell ourselves. We have people requesting our services. And whatever we do in that respect, we try to do it better than they anticipate. That's the quality of our service. And I see no reason why this couldn't continue to improve."

Fansler holds that "proper motivation is the key to working with people. When I came to work here, I was charged with upgrading law enforcement. That charge was given to me by the Governor, then Governor Jimmy Carter, and by the Commissioner, Joe Tanner. They felt that my background and training in the military—my long-term experience, as they put it—in law enforcement work would be of some value. Although my training and most of my experience in law enforcement has been in the military environment, my command training and management experience are applicable in any organization. My goal always was that our law enforcement organization perform a service to the people of the state and for the Department of Natural Resources. The priority doesn't matter to me. My feeling is that if you're dedicated toward improving this department, you will automatically put yourself in a posture wh[illegible] you can provide your maximum s[illegible] vice to the people of the state."

Fansler, retiring from his secc[illegible] post of service to country and sta[illegible] will not retire from an activity he [illegible] participated in for five years. He [illegible] made his permanent home since 19[illegible] in Augusta, site of what has b[illegible] called golf's most prestigious eve[illegible] the Masters tournament. He is [illegible] official scorer. 'I guess I'm a fr[illegible] trated golfer," he says. "Alw[illegible] loved the sport. Never seemed [illegible] have the time to develop any sk[illegible] in it. After retiring from the milita[illegible] I wanted to continue to be a part [illegible] the community. Having a natural [illegible] finity for golf, I volunteered to [illegible] come an official scorer for the M[illegible] ters. There's a big bunch from [illegible] community, several hundred, v[illegible] serve on a volunteer basis to help [illegible] management of the Masters in s[illegible] areas as crowd control and scor[illegible] and other services. Although y[illegible] wind up having to meet a schedul[illegible] it's an interesting and delightful fo[illegible] day outing for me. This is my gar[illegible] although I never was able to take [illegible] active playing part. These are [illegible] homefolks, my friends. I feel l[illegible] privileged to be a part of all this."

Fansler is a thoroughly conver[illegible] Augustan. "First time in Augu[illegible] was in '52 and '53," he said. "[illegible] Fort Gordon for the Military Pol[illegible] Career Course. Came back in '61 a[illegible] stayed till '65, wound up on that t[illegible] as CO of the Military Police Train[illegible] Brigade. Back again in '69, Assist[illegible] Commandant of the U. S. Army M[illegible] tary Police School. Lived in a lot [illegible] places, of course, in my milita[illegible] career. Only place I ever had any [illegible] sire to come back to is Augusta."

Of course it is impossible to s[illegible] up in one word the career of an act[illegible] man who has contributed a great d[illegible] to society. But if the requirement w[illegible] to pick one word to apply to Fansl[illegible] the choice is clear. Look at what [illegible] man has accomplished. Listen to h[illegible] talk. There's one word that kee[illegible] cropping up in his conversation t[illegible] applies to what he has delivered. T[illegible] word is "service."

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Having given the conservation ranger the necessary tools and techniques to do the job, Col. Fansler will long be remembered for professionalism.

coupled with Mr. Tanner's willingness to give me a reasonably free hand within merit system policy, has helped as we seek to change the image of our agency from game wardens in bib overalls and tennis shoes to highly competent, highly trained professional conservation rangers in sharp uniforms. The backgrounds of present-day rangers in terms of education, training and work experience gives them latitude to perform broader basic functions for the benefit of the people of their communities."

A note of pride entered Fansler's voice as he said, "We have certainly proved ourselves to other enforcement agencies. We have proved ourselves to the extent that they have grown to depend on us. And look to us to provide assistance. The state patrol, county sheriffs, and in some instances also the Georgia Bureau of Investigation and Federal Bureau of Investigation and the civil defense and civil disaster teams and organizations throughout the state — all these people have learned to turn to us for skillful assistance on significant [illegible] involving property damage, [illegible] loss of life. I'm very [illegible]ery proud that we don't have to go out and sell ourselves. We have people requesting our services. And whatever we do in that respect, we try to do it better than they anticipate. That's the quality of our service. And I see no reason why this couldn't continue to improve."

Fansler holds that "proper motivation is the key to working with people. When I came to work here, I was charged with upgrading law enforcement. That charge was given to me by the Governor, then Governor Jimmy Carter, and by the Commissioner, Joe Tanner. They felt that my background and training in the military—my long-term experience, as they put it—in law enforcement work would be of some value. Although my training and most of my experience in law enforcement has been in the military environment, my command training and management experience are applicable in any organization. My goal always was that our law enforcement organization perform a service to the people of the state and for the Department of Natural Resources. The priority doesn't matter to me. My feeling is that if you're dedicated toward improving this department, you will automatically put yourself in a posture wh[illegible] you can provide your maximum s[illegible] vice to the people of the state."

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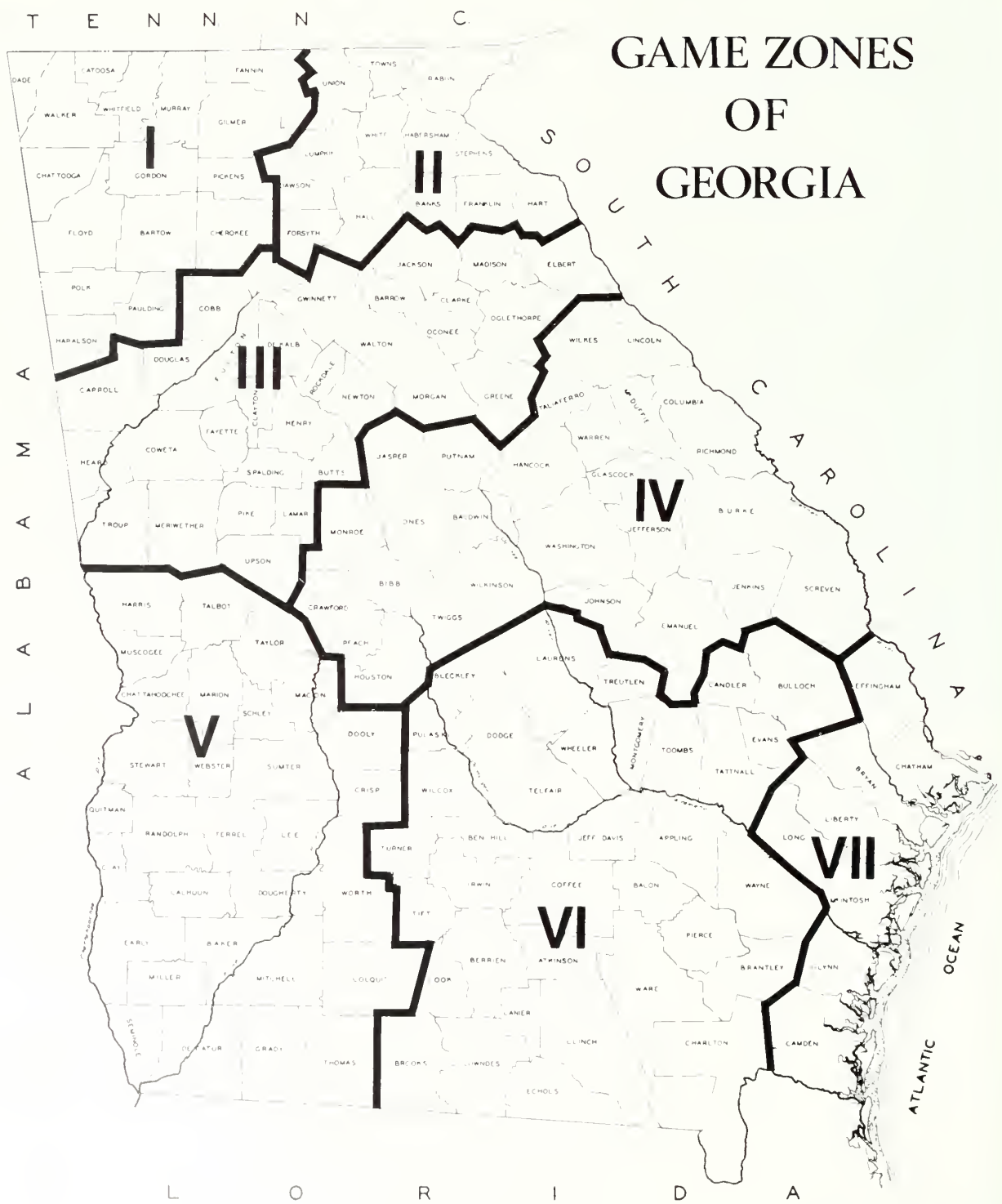
Sportsman's Calendar



DEER SEASONS

Hunters may take only legal bucks visible antlers erupted above hairline) unless otherwise specified; maximum limit will be two deer per hunter per year.

Hunting deer with dogs is illegal unless otherwise specified.

Still hunting is permitted during specified dog hunting seasons.

Hunting seasons on lands within wildlife management areas, state or federal wildlife refuges, and military reservations do not coincide with general regulations unless so stated. (See WMA regulations.)

ARCHERY SEASON

STATEWIDE: Oct. 2-Oct. 30, Either-Sex. The archery season closes Oct. 14 in all counties having gun hunts opening Oct. 5.)

FIREARMS SEASON

GAME ZONE I: In all counties except Catoosa, Pickens and Whitfield.

Buck Only: Nov. 6-27 and Dec. 27-Jan. 1.

Either-Sex: Nov. 27. In Floyd, Haralson, Gordon (west of U.S. 41 and north of Ga. 156), Polk and Walker.

GAME ZONE II: In all counties.

Buck Only: Nov. 6-27 and Dec. 27-Jan. 1.

GAME ZONE III: In all counties except Clayton, Cobb, DeKalb and Fulton.

Buck Only: Nov. 6-Dec. 4 and Dec. 27-Jan. 1.

Either-Sex:

1. In Greene County — Dec. 4 and Jan. 1.
2. In Butts, Elbert, Heard, Henry, Lamar, Meriwether, Newton, Pike, Spalding, Troup and Upson — Dec. 2-4 and Dec. 30-Jan. 1.
3. In Clarke, Carroll, Coweta, Fayette, Morgan, Oconee, Oglethorpe, Rockdale and Walton — Dec. 3-4 and Dec. 31-Jan.

GAME ZONE IV: In all counties except that portion of Bibb east of I-75, from the each County line to jct. of I-475, and east of I-475 to jct. Ga. 361, and east of Ga. 361 to jct. Ga. 87 and east of Ga. 87 to Monroe County line.

Buck Only: Nov. 6-Dec. 4 and Dec. 27-Jan 1 (except Johnson County — Nov. 6 Jan. 1).

Dog Hunting:

1. In Burke, Emanuel, Jefferson, Jenkins, Screven and Washington — Oct. 15-Jan. 1.
2. In Johnson County, east of Ga. 15 — Dec. 1-Jan. 1.

Either-Sex: (No dog hunting)

1. In Crawford, Houston, Peach, Twiggs and Wilkinson — Nov. 25-27 and Dec. 2-4 and Dec. 30-Jan. 1.
2. In Baldwin, Columbia, Glascock, Hancock, Jasper, Jones, Lincoln, Monroe, McDuffie, Putnam, Richmond, Taliaferro, Warren and Wilkes — Dec. 2-4 and Dec. 30-Jan. 1.
3. In Burke, Emanuel, Jefferson, Jenkins, Screven and Washington — Jan. 3-4.

GAME ZONE V:

Buck Only: Nov. 6-Jan. 1. In all counties except Crisp — Nov. 6-30.

Dog Hunting:

1. In Baker, Calhoun, Decatur, Dougherty, Early and Thomas — Nov. 6-Jan. 1.
2. In Grady, Marion, Mitchell, Seminole, Stewart, Terrell and Webster — Dec. 11-Jan. 1.
3. Colquitt — Nov. 12-13 and Nov. 19-20 and Nov. 26-27.

Either-Sex:

In Baker, Calhoun and Dougherty (dogs allowed) Nov. 8-19 and Dec. 30-Jan. 1.

2. In Chattahoochee, Harris, Macon, Muscogee and Schley (no dogs) — Dec. 2-4 and Dec. 30-Jan. 1.
3. In Talbot and Taylor — Nov. 25-27 and Dec. 2-4 and Dec. 30-Jan. 1. (No dogs).
4. In Marion, Stewart and Webster (no dogs) — Nov. 29-Dec. 4.
5. In Clay, Dooly, Sumter and Worth (no dogs) — Dec. 3-4.
6. In Decatur, Early, Grady and Thomas (no dogs) — Jan. 3-4.

GAME ZONE VI: Closed Counties: Bacon; that portion of Pierce County lying west of U.S. 82 and southwest of Pleasant Hill Church Rd. and that portion lying southwest of Ga. 15 and east of U.S. 82; that portion of Wayne County lying west of Jesup bounded on the north by Ga. 169 and on the south by U.S. 82; that portion of Ware County lying north of U.S. 82; and others as herein provided.

Buck Only: In all counties except as listed below — Nov. 6-Jan. 1.

1. Treutlen — Nov. 6-16.
2. In Dodge County, west of Ga. 230 and north of U.S. 280 and south of U.S. 280 and west of Ga. 117, southwest of Rhine, Ga. — Nov. 6-Jan. 1.
3. Toombs — Oct. 15-Jan. 1.

Dog Hunting:

1. Toombs, south of Ga. 107 and Ga. 56 — Nov. 6-30.
2. In Clinch, north of Ga. 37 and east of Suwannoochee Creek and southeast of U.S. 221; in Echols, east of U.S. 129 and south of Ga. 187; in Lanier, north of Seaboard Coastline Railroad and east of the Alapaha River and southeast of U.S. 221 — Nov. 6-Jan. 1.
3. In Ware, south of U.S. 82 — Nov. 6-Dec. 4 and Dec. 26 — Jan. 1.
4. In Atkinson, south of the Seaboard Coastline Railroad and east of U.S. 221; in Berrien, east of U.S. 129 and south of the Alapaha River and north of Ga. 76 and west of Ga. 135 — Dec. 25-Jan. 1.
5. In Dodge, west of Ga. 230 and north of U.S. 280; and Wilcox east of U.S. 129 and north of U.S. 280 — Dec. 30-Jan. 1.
6. In Bulloch, Candler, Evans, Tattnall, Wayne (except closed portion), Pierce (except closed portion), Brantley and Charlton — Oct. 15-Jan. 1.

Either-Sex: (No dog hunting)

1. Bleckley and Pulaski — Dec. 2-4 and Dec. 30-Jan. 1.

GAME ZONE VII:

Dog Hunting: In all counties — Oct 15-Jan. 1.

Either-Sex:

1. Little St. Simons Is. (private land) — Oct. 15-Feb. 21.
2. Effingham — Jan. 3-4.

SMALL GAME

***BOBCAT** — Oct. 15-Feb. 28, statewide, no limit. Night hunting allowed.

***FOX**—No closed season, no limit, statewide. Night hunting allowed.

GROUSE — October 15-Feb. 28, statewide, limit — 3.

***OPOSSUM** — Night hunting allowed, no limit. Game Zones I & II — Oct. 15-Feb. 28. Game Zones III, IV, V, VI, VII — no closed season.

QUAIL — Nov. 20-Feb. 28, statewide, limit 12 (possession 36).

RABBIT — Nov. 20-Feb. 28, statewide, limit 10.

***RACCOON** — Night hunting allowed. In Carroll, Fulton, Gwinnett, Barrow, Clarke, Oglethorpe, Wilkes, Lincoln and all counties north of these — Oct. 15-Feb. 28. Bag limit 1. In all other counties — no closed season, no limit.

SQUIRREL — Game Zones I & II — Sept. 15-Feb. 28, bag limit 10. Game Zones III, IV, V, VI, VII — Oct. 15-Feb. 28. Bag limit 10.

*For trapping these animals refer to trapping seasons.

WATERFOWL SEASON

(see regulations on page 6)

Migratory Birds

DOVES: Dec. 11 through Jan. 13, 1977
12 daily; 24 in possession

RAILS: Sept. 18 through Nov. 26, 1976
King and Clapper Rails — 15 daily; 30 in possession
Sora and Virginia Rails — 25 daily; 25 in possession

SNIPE: Nov. 20 through Feb. 28, 1977
8 daily; 16 in possession

WOODCOCK: Nov. 20 through Jan. 23, 1977 — 5 daily; 10 in possession

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MAGAZINE STAFF
Phone—656-5660

David Cranshaw · Editor-in-Chief
Bill Morehead . . . . . Editor

Aaron Pass . . . . . Managing Editor
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Mike Nunn . . . . . Illustrator
Bob Busby . . . . . Photo Editar
Edward Brack . . . . . Photographer
Bill Bryant . . . . . Photographer
Jim Cauch . . . . . Photographer
Priscilla C. Pawell Circulation Manager

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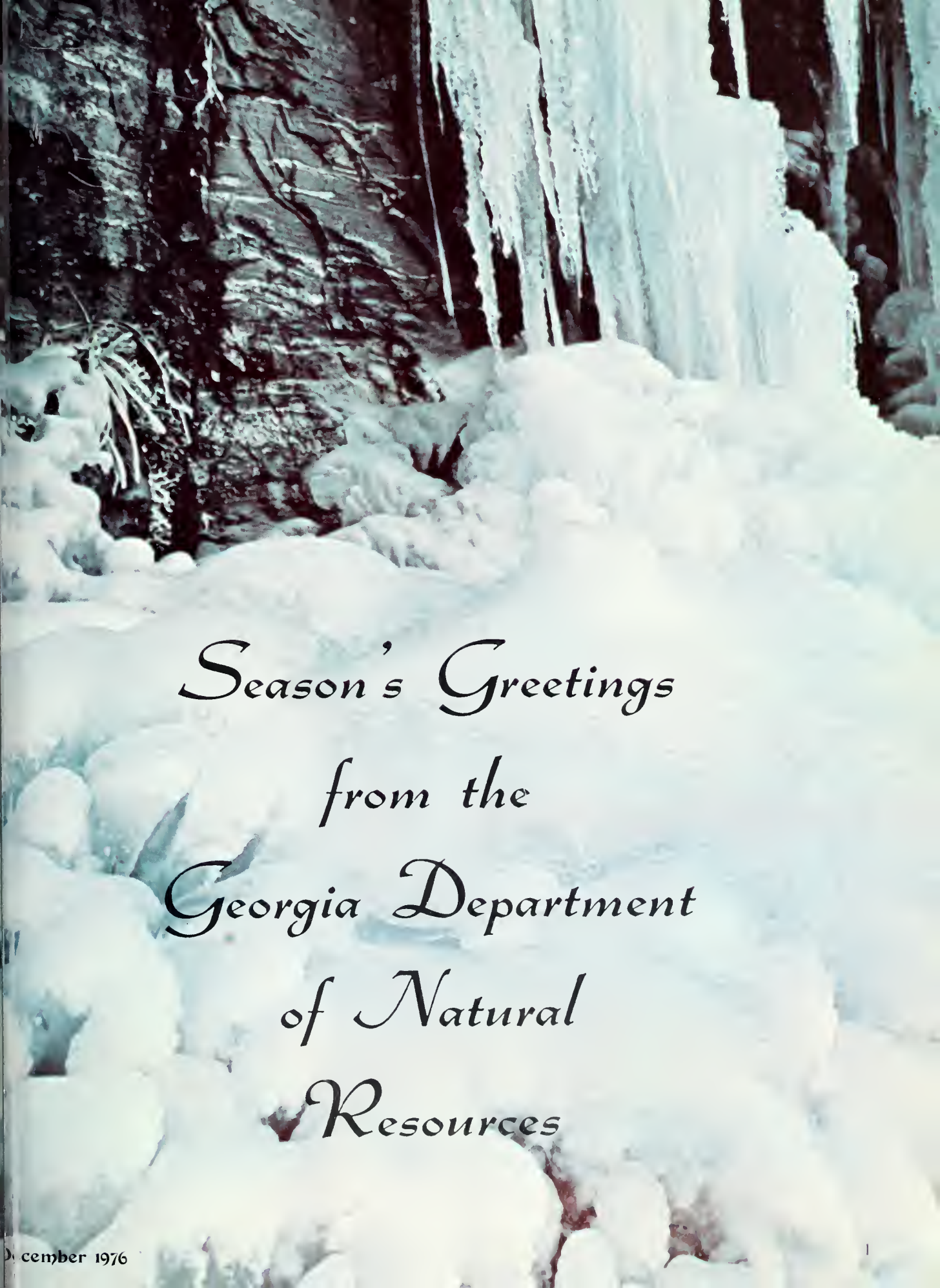

Season's Greetings
from the
Georgia Department
of Natural
Resources

cember 1976

December

Doves

by Aaron Pass

Photography by the author and Bob Busby

Low, gray clouds driven by a sharp north wind swept across a leaden sky as pellets of sleet rattled the dry cornstalks in the field. The mud puddles remained frozen in the early December afternoon, but the ground had thawed just a bit on top. Nothing is quite as slick as freshly thawed Georgia clay, so the walking is treacherous.

Tough walking in warm clothing makes for sweat, and a rubberized rain parka retains the clammy moisture. Such a parka is a good wind breaker, and its brown camouflage will be needed among the cornstalks. Good camouflage and warmth are important factors on a mid-winter dove hunt.

The mourning dove is one of the state's most popular game birds in early September, when the first part of the dove season opens. It is the first scattergun hunting available, and there are few hunters who don't make opening weekend. During the early season it can be hot, and often the dove shooter's main concerns are avoiding bugs, snakes and sunstroke.

The doves themselves are mostly inexperienced then, and little stealth or concealment is necessary. If a hunter can find a flight lane he can sit in plain sight and still get plenty of shooting.

In the second, mid-winter season the doves

are different birds; they have smartened up. Adults now, the birds are strong flying and wary. The slow, stupid and weak individuals are gone, culled by hunters or by the many predators which dine on dove in early fall. Winter flocks fly in tight formation and flare like geese if they spot something amiss. Turning as a unit, the whole flock will spook and seldom will any slow-witted stragglers blunder on ahead, as often happens on the first shoots of the season.

This should not be taken to mean that early fall shooting is easy—doves are never easy targets. It is just that as tough as fall shooting may be, winter shooting can be, and usually is, even tougher.

Camouflage clothing is almost essential, and [illegible] a bad idea. The clothing should [illegible] ground. A hunter standing in pines can stay with green, but in most other areas gray or brown blends better. Doves are not color blind, and a dark green blob in a light brown stubble field looks like just what it is—a dove hunter. Brown camouflage clothing is hard to find, but it really works at this time of year.

Another change from the early season is in the choice of guns and loads. Most early season shooters would have much higher scores if they stuck to open choke guns. Except on extremely crowded fields, where everyone shoots at every dove in sight, most early season shooting is close. In the winter, all the birds are wild and wary, and the shots are longer. Modified or even full chokes can be used to some advantage.

Loads should go up too. Forget about those $2.50 "dove loads" you bought in September;

they won't cut it. These shells, in 12 gauge, are loaded with only 1 ounce of shot, which makes a 12 gauge really only a 20. Regular field loads (1⅛ ounces in 12 ga.) are better, and the so-called "pigeon" loads which carry 1¼ ounces of shot are the best. High velocity is no great advantage here so leave the "high brass" loads alone unless you enjoy getting kicked and spending money.

Fans of 16 and 20 gauge guns have to go to high velocity loads to get to 1⅛ ounces of shot (the field load is 1 ounce). That ⅛ of ounce may not seem like much, but it will make a difference.

Doves are small birds, and they can "get through" holes in a thin shot pattern. Fairly heavy loads of small shot are necessary for good shooting. Shot sizes 7½ and 8 in 1⅛ to 1¼ ounce loads give good pattern density.

One of the main differences the winter dove hunter will note (besides the temperature) is the reduced competition. From the fever pitch of excitement in September, dove hunting, interest slides to almost nothing in the winter. This is mixed blessing to the hunter. It is easy

to get permission to hunt now that the crowds are gone, even on fields which were "standing-room-only" on opening day. The doves are almost as plentiful. *BUT*, there is a problem with this lack of competition.

The odds are there is no one in adjacent fields to keep the birds on the move. A hunter may enter a field, take a few shots, then see nothing for a couple of hours. Winter doves are no fools; they will quickly decamp for more peaceful climes once the shooting starts.

One factor works to the hunter's advantage; many fields are no longer attractive to the birds. Those that have been turned under, planted and sprouted a cover crop are usually barren of doves. Look for recently harvested corn fields, fields which have been turned only once (there will still be stubble and weeds above ground), and planted fields which have not sprouted. It is in these spots winter doves feed.

A little back road driving will find these fields and, perhaps, doves. The next step is getting permission and setting up a hunt. Not many folks are needed to shoot winter doves. Even a fairly large field will have only three or four flight lanes, and one hunter on each is enough. The best bet for a larger group is to get permission in adjacent fields where they can spread out enough to keep the birds flying. A big crowd will burn out a field in a hurry.

The colder weather and winter winds add another dimension to the hunting. Birds now are thickly feathered (another reason for heavy shot loads) and are really fast, particularly so when boosted by a stiff breeze. Of course birds flying against the wind seem to be hanging motionless in the air—don't believe it, they are moving too.

On blustery winter days the doves will be feeding all afternoon, usually in groups of four to ten, but sometimes in flocks of 30 or 40. If these big flocks don't break up when the shooting starts they will often stay off the field for a while. Sometimes the wait may be tedious, but there are some time-tested techniques to speed up the action. Lighting a cigarette almost always works. Answering nature's call is another surefire method of getting doves over the field. [illegible] moments of desperation you might try both [illegible] real challenge to try to hit a dove screaming downwind, with your eyes full of smoke and cold drafts hitting highly unusual places.

Going to the field to retrieve a downed bird also usually results in action. It is not, however, recommended that you try all three techniques at once.

At any season, the dove is a highly sporting game bird, but in mid-winter he is at his best. Strong, fast and alert, he will test the hunter to the maximum. Just remember to take hot coffee instead of iced tea, and you will have a ball with December doves.

Killyhawk

by James A. Wesson and
Robert J. Warren

Art by Liz Carmichael Jones

The killyhawk or the American kestrel *(Falco sparverius)* is probably the most common raptor in Georgia. Though only a small number breed in our state, large numbers occur during the winter. Other common names for the kestrel are windhover and sparrow hawk, but the latter is a misnomer since kestrels eat very few sparrows. The kestrel is our smallest member of the Falconidae family; yet, it is probably the most adaptable species of all North American hawks.

The distribution of the kestrel is remarkably extensive. It is present in the New World from the tree-line in Alaska and Canada to the tip of South America. The species survives well in all physiographic regions except areas of heavy forestation such as the Amazon Basin. Breeding areas extend from the Upper Yukon Valley, northwestern Mackenzie and Newfoundland south to Texas, northern Alabama and northern Florida. Normally kestrels migrate south in the fall and spend the winter south of Kansas, Ohio and Massachusetts all the way into Cuba and Mexico. While they are permanent residents of some parts of Georgia, they are much more common during the winter in both Georgia and Florida.

Falcons (streamlined hawks with long pointed wings) are among the most beautiful birds in the world. The flight of the kestrel is

graceful and swift, and upon landing it is easily identified by a characteristic pumping of the tail up and down. The body size is similar to that of a robin or dove, and the weight is approximately four ounces. The female, as in most birds of prey, is almost one-third larger than the male. The plumage of both sexes can be easily distinguished in the field. The male is strikingly colored with a red and blue crown and slate blue wings. The back is rufous-colored with black barring. Males can be easily distinguished from females by a solid rusty-red tail with one large black band at the base. In contrast, the female's head coloration is similar to that of the male, but is less bright. Her back is brown with black barring. Both sexes have whitish breasts with dark streaking, although the female's breast is usually darker. Juvenile plumage is identical to the adult's plumage.

A distinguishing characteristic of all falcons is the notched upper bill. Easily observable close up, it is believed to aid in severing of the spinal cord in small prey.

Kestrels are noisy birds, especially when their territory is invaded, or from some other source of irritation. Their high pitched cry of excitement, alarm or irritation is a "klee" given in rapid bursts of three to six cries. These single notes uttered in succession give the impression of a "killy" sound, thus giving rise to the name killyhawk.

Birds of prey have keener vision than any other animal on earth. With eight times the visual acuity of man, a kestrel perched on one goal post on a football field could easily see a small moth on the other. The eyes, specially adapted for depth and motion perception, are set in the head so as to permit binocular vision. Because the eyes are so large in the sockets, they can move very little, and a curious bird will often have to turn his whole head upside down to examine a nearby object.

The kestrel does not take prey in the air but most commonly takes food after a plunge from a high perch such as a telephone line or tree, or from a hovering position over an open area. Normally, the kestrel's daily intake will be 20 to 25 percent of its body weight. These hawks are opportunistic; their prey animals are varied and tend to change seasonally. In Georgia, the kestrel's diet consists of mammals of mouse size and occasionally of small birds. Very often they rely on insects such as beetles, grasshoppers, butterflies and worms. Extremely adaptable, the kestrel lives remarkably well in urban and suburban areas by changing its diet to house sparrows and starlings. Thus, the kestrel serves an important and beneficial service in controlling rodents and other pests.

Kestrels are social birds only during the mating season, which begins in March or April. Both sexes assist in searching for suitable laying sites. They nest in many types of holes or crevices including woodpecker holes, nest boxes and holes in buildings. They construct no nest as such, but instead use only those materials already in the nest cavity. In Georgia the laying dates are from late March to early June. However, throughout most of their range the laying dates are later, ranging from mid-April to mid-June. Eggs usually number from four to five, with colors varying from cream, white, or pink to heavily marked rufous or brown.

The female incubates the eggs and the male brings her food. Incubation requires 29 to 30 days. Once the eggs have hatched, the female continues to brood and feed the young for 20 days. After this time, the young are brought whole carcasses and they feed themselves. In four to four and one-half weeks, the young are fledged, but they often remain as a family group and continue to take food from the parents for several weeks.

Man and accidents are the two most frequent causes of kestrel mortality. Since they spend much of their time feeding along highway right-of-ways, many are hit by cars. The next greatest source of mortality is starvation, especially during the young bird's first year of life. Kestrels are preyed upon by some larger hawks, but these incidents are rare.

There is little excuse for man to destroy this species. It remains remarkably adaptive in spite of all of man's injustices. The kestrel is probably more numerous now than in earlier decades despite pollution and ecological disruption. It is easy to raise in captivity and has been frequently used by the Fish and Wildlife Service to study more threatened birds of prey. This bird is entirely beneficial, harmless to man's interests, and performs an important function in the natural balance of Georgia's wildlife.

American Kestrel

Speckled Trout of the Golden Isles

By Bill Killian, Jr.
Photography by
Bob Busby

"Where's your cork?" George shouted.

Startled from my idle gazing across Saint Andrew's Sound toward the distant outline of Jekyll Island, I turned suddenly and tried to focus on the spot near the clump of salt water marsh grass where moments before my casting cork had been peacefully floating. Realizing that the cork was underwater, I jerked the rod back to set the hook and found myself fast to a fish. After several minutes of his hard, short runs and desperate open-mouthed head shaking at the surface, I managed to work him near the boat and soon gingerly netted a spotted weakfish, better known as speckled trout.

"He'll go a couple of pounds easy," George commented, followed excitedly by, "I've got one, and he just took my cork under so fast that it left a hole in the water! There must be a school feeding around that oyster bar next to the marsh."

Anxiously rebaiting with a live shrimp, I cast about 50 feet back to the spot where the fish seemed to have congregated. No sooner had the cork hit water and straightened up, than it went under again.

"Got him!" I yelled, but as I attempted to play the trout, he gave a sudden downward lunge, and the line went limp.

"Lost yours?" George asked, as he was in the process of netting a trout nearly the same size as the one I had previously boated.

"Yeah," I replied. "He must have thrown the hook."

Quickly, we each reached into the baitwell for a frisky, finger-sized shrimp, hooked up, and were soon back in

business playing a brace of trout whieh we managed to net.

"Wow!" George exclaimed. "A doubleheader—if we keep this up we'll sink the boat!"

Angling for speekled trout is year-round exeitement around the Golden Isles, with peak fishing oeeurring in fall and early winter. Jekyll, Saint Simons, Sapelo, Cumberland, Ossabaw, and Saint Catherines are frequently referred to as Georgia's "Golden Isles," perhaps alluding to legendary tales of pirate's gold buried in sandy dunes above wave-swept beaehes, or possibly beeause of the islands' golden beauty. These eoastal barrier islands are separated from the mainland by vast aeres of *Spartina* marsh grass, whieh is erisscrossed by eountless tidal ereeks, larger estuarine rivers and sounds. The *Spartina* marsh forms a highly eomplex and produetive estuarine eeosystem whieh serves as a "nursery" for many types

of marine life. Crustaeeans, mollusks and fish abound to spawn and mature in this fertile zone, and spotted weakfish find the marsh an especially attraetive habitat in which to locate their next meal.

The name "weakfish" is somewhat inappropriate when applied to the fighting abilities of this salty gamester. It is true that speckled trout display little fight on heavy tackle, but when fished for with a suitably light rig, they are very game fighters. "Weakfish" probably refers to the extremely soft mouth of this species whieh requires a hooked fish to be played very carefully, sinee horsing a speekled trout usually results in the hook being torn loose during the trout's fight to free himself. The spotted weakfish is commonly referred to as speekled trout due to [illegible] and fighting similarities between the speek [illegible] trout, and beeause a broiled, fried or baked speek is the salt water equivalent of a fresh wat trout on the table.

In early fall, hordes of speekled trout begin feeding the sounds, rivers, and small tidal ereeks which meand through the thousands of aeres of *Spartina* marsh su rounding the Golden Isles. There they feast upon shrim minnows and other assorted dainties whieh strike the faney.

A preferred method of angling for them is to still-fi these tidal creeks during ebb tide with a live shrin floated elose to an oyster shell-lined seetion of gras Trout school around sueh areas in order to pounce upo any unwary shrimp or minnow which has been fore from the grass by the outgoing tide. Many fish are al taken in the same area on the flood tide when they a ehasing shrimp and minnows in the grass. Thus, speekl trout are usually eaught in water three to seven feet dee however, as the water temperature drops in winter th move into slightly deeper water.

These fish usually range in weight from one to thr pound school trout, with five pounders being eommo upward to the solitary and exeeptionally large eight ten pound "gator" trout. Therefore, light taekle is a mu in order to give the fish a fighting chanee. Freshwat blaek bass combinations serve well, but a light action, s to nine foot salt water rod with a matching casting spinning reel is usually ehosen by experieneed speekl trout anglers. A hundred yards of 15 pound test line, a a easting eork set to hold a live shrimp on a number 5/ hook just off the bottom will eomplete the rig. The shrin will remain alive on the hook for a surprising length time if it is impaled directly under the horn on its hea with care being taken not to pieree the shrimp's vit organs, whieh appear as two dark spots in its head. A oeeasional jerk on the terminal rig will aid in maintaini the shrimp's underwater action, which hungry trout see unable to resist. Frequently, specks will strike buekt jigs and small plugs whieh are bouneed along the botto In such instanees, standard black bass spinning or casti taekle offers maximum sport. During cold weather, tro ing a lure through the deeper ereeks is often extreme effeetive.

The universal popularity of the speekled trout is d to their easy accessibility, numbers, fighting ability a epieurean qualities whieh do justiee to the palate of gourmet. Many fishermen take speeks from tidewat doeks, bridges, the surf, or even ereek banks. Howeve most trout are taken by anglers fishing from small ou board runabouts. These fishermen enjoy miles of seelud marsh and eoastland in whieh to explore for trout ho spots, disturbed only by the oeeasional eaekling of mar hens.

As the late Oetober sun eontinued to rise, the speek appetite inereased, until around noon George and I ra out of live shrimp.

"Out of bait, it looks like we'll have to eall it a day George dolefully remarked. "Let's head for the hill."

"All right," I replied, "but let me try a jig on t spinner first."

Tying the red, shrimp-like lure to the line, I east ne

a partially submerged oyster shell bar and let the lure sink to the bottom. Bouneing it slowly along the shelly bottom on the retrieve, the line suddenly beeame taut.

"Snagged bottom?" George asked.

Before I eould reply, line began sereeehing off the reel. The drag didn't begin to slow down the fish until he had run 50 feet. I managed to eheek his run, fearing all the time he would cross a sharp oyster shell and eut the line.

"Good grief! This is a big one," I finally managed to blurt out.

After about ten minutes of playing him to the boat only to have him make another run, I worked the fish next to the boat, and George netted him.

"Spot-tail bass, about 12 pounds!" George exelaimed.

"Whew! I'm glad he's in the boat," was all I could reply.

Channel bass, also known as red drum and spot-tail bass, are a bonus fish to speekled trout anglers. These bass ean weigh anywhere from one or two to 40 pounds, and many are added to the trout angler's ereel. They are eaught year round, with fall produeing the best runs on the Georgia eoast. A speekled trout angler ean never really be sure what type fish he has hooked when his lure is struek or his eork disappears under water. In addi- tail bass, other bonus fish whieh may add to a include black drum, blue-fish, eroaker, lie, ladyfish, sheepshead, striped bass, spot, whiting and the common weakfish, known as "summer trout."

After many other fruitless casts with the jig and other assorted lures, I concluded that, at the moment, the trout were only interested in live shrimp, and evidently the bass had been a stray.

"How many trout do we have in the iee box?" I asked.

"About 35 two and three pounders, no big ones, but all niee eating size," George answered.

"Let's fry some for dinner," I suggested.

"Fine," George agreed, "let's get going."

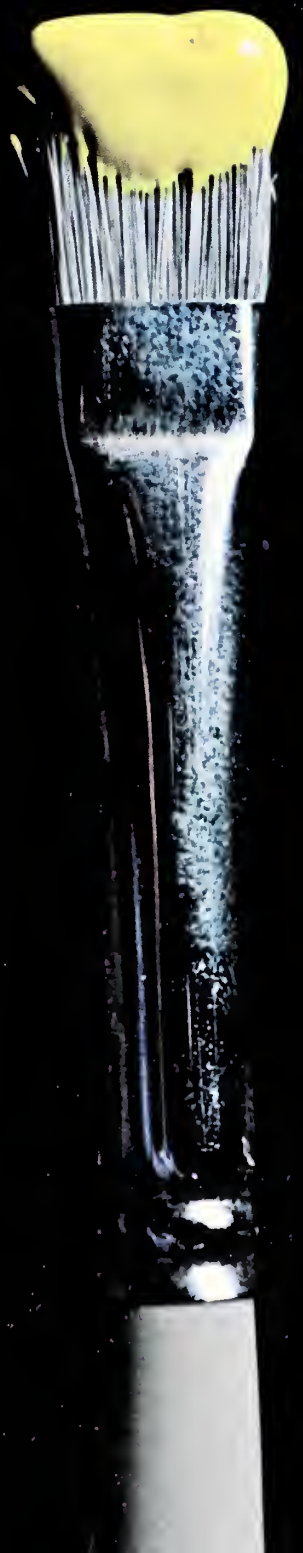
Upon arrival at the Jekyll Island Marina after crossing Saint Andrew's Sound, we encountered another boat whieh had also just returned from a morning's fishing.

"How are the trout biting?" George inquired.

"Great," responded the man in the other boat, "my wife and I eaught about 40 in a couple of hours. By the middle of November they should really be tearing it up!"

The fall and early winter is the most enjoyable time of the year to fish for speckled trout in the Golden Isles. Barring an unpredietable eold front or northeaster, the mild Indian summer days have a briskly pleasant nip in the air, with usually mild night temperatures giving way to warm days. Aeeommodations, boat launehing sites and bait stands are numerous. Most important of all, the obliging speeks will provide as exeiting a day's fishing as can be imagined in Georgia's land of the Golden Isles.

Outdoors in Georgia's



1st Annual Southeastern Wildlife Art Exhibit

Out
Southeas
Oct

Sculpture—
James Kilgo—Blue-wing Teal
Dan DeMendoza—Largemouth Bass and Crappie
Dan DeMendoza—Elephant Family

Prints (Engravings/Woodcuts/Etchings/
Silkscreens)—
Janet Warner—Tiger
A. C. Gentry—Scaup

Drawings—
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ng (Oils/Acrylics)—
Cochran—White-throated Sparrow
raway—Unfinished Owl
Cochran—Indigo Bunting

colour
d Parks—Night Heron
ill—Red-breasted Nuthatch
d Parks—Brown-headed Nuthatch
wings—

til/Pastel)
ns
a
Cranes

Dan DeMendoza, sculptor.

Just Another Day

by Bill Morehead
Photography by the author

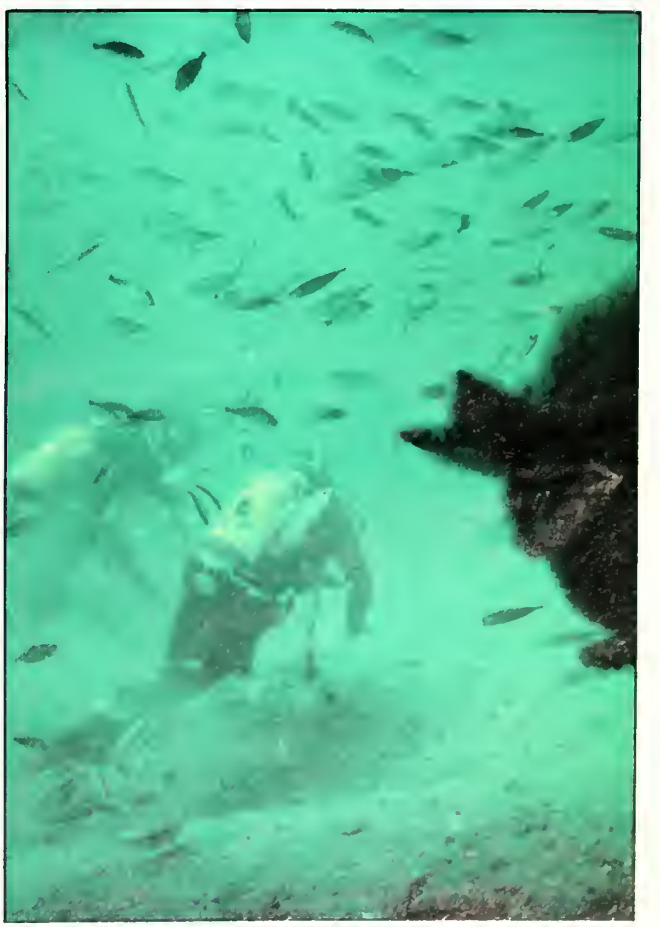
The whole idea behind an artificial reef on the near-shore ocean bottom is to attract and keep fish. The more fish attracted to the reef, the more likely it is for fishermen to catch some. What happens is, the reef attracts little fish, they attract bigger fish, etcetera, etcetera. Sometimes it works too well.

The only good way to see what has been attracted to an individual reef is to dive down and see for yourself. Sometimes the divers can become part of the action.

Larry Smith of the Coastal Fisheries Section of the Department's Game and Fish Division makes many such dives. Larry and his crew dive often to check the fish, tire columns, sunken ships and the "live bottoms" that make up the offshore reefs off Georgia.

This particular dive was routine. Just a fish count—dive down about 60 feet, stay down long enough to identify and count the fish seen. Such counts are used to compute estimates of the saltwater sportfish populations. In turn, these population estimates give some indication of the job these reefs do attracting and holding fish.

Mike Younce, captain of the research vessel *George T. Bagby*, also dives, but this day he stayed on board to regulate the diving times and to provide radio communication with the Brunswick Coastal Fisheries Headquarters. I was along for this story.



Divers count fish utilizing an artificial "live bottom." Opposite, David Ansley comes aboard.

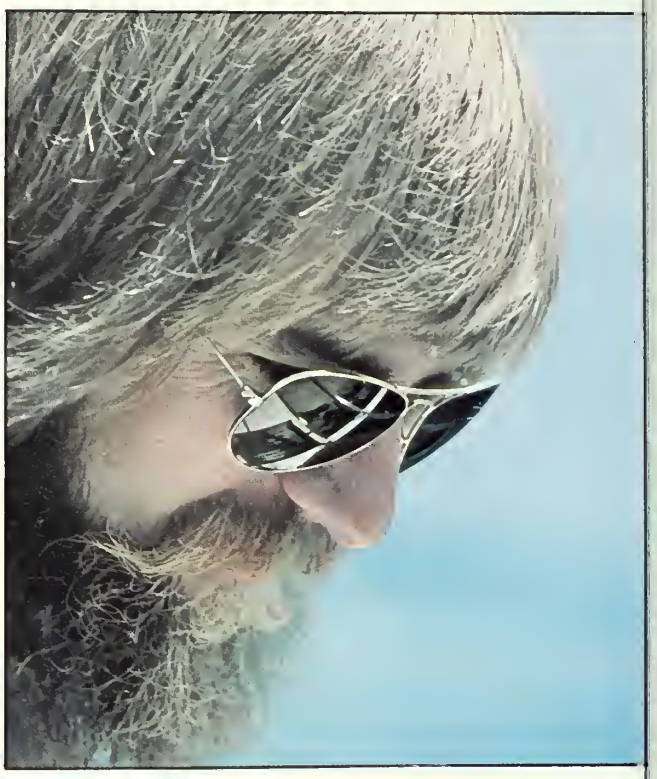
WR2, the reef of this particular dive, was sort of given to Georgia by the U-Boats, when a Dutch refrigeration ship was sunk off Brunswick in World War II. To this, DNR has added approximately 13,000 tires, bound in columns. The first dive was made slightly off the location of the WR2 buoy, near some fire units. It lasted some 28 minutes. As the divers came back aboard I asked them about their success. A good dive, but not much fish life present. Some amberjack, sea bass, barracuda, one or two types of snapper. "Did you see that big 'cuda? He must have been four feet," asked Jim Music, a biologist with the Shrimp Assessment Program, who came along to assist with the fish counts. Just routine.

The second dive was at the precise location of the ship wreckage. Younce, keeping time of the dives, told the divers, "You stayed down for 28 minutes. Diving at 60 feet, you have a total diving time of 60 minutes. This means you'll have 32 minutes for this dive. No more."

Mike told me that this 60 minutes for 60 feet rule should keep the divers well within bounds of their nitrogen tolerance. Any more time spent diving could mean a very slow ascent, as the divers would have to "decompress" at increasingly shallower depths. "We don't have easy access to a decompression chamber. We operate within sane boundaries for our own safety. Nobody has to tell us to take care of ourselves. We might have to dive again tomorrow, or the next day, certainly next week. It's a good job—but it is a job. We don't joyride."

The divers made ready to go again. Hoisting scuba tanks on their backs. (I noticed each man put on his own tanks. No help from a buddy, like you see in the movies. These guys had put tanks on so often it was like slipping a shirt on for anybody else.) They checked their gear, particularly the intake valves on the air lines. Weights on, and with a sign from Mike Yonce, they went over the side. Quickly, with a minimum of splashing—like Olympic divers. No muss, no fuss. One minute they are all on board, the next, only Mike and I are on board. Just a bubble trail to tell where men are down in the ocean counting fish.

Mike and I spent time chatting. I try (and [illegible] get in-the-water pictures of some amber[illegible] jumming close to the surface. I zoom in on



Mike Younce on board the research vessel.

a gull swooping low over the water, spot a turtl sunning himself, and Mike says, "Hey, the guy are coming up." I look at my watch. Only 1 minutes have passed by. Wonder why they cam up so soon?

A rustle as Mike helps first one, then the othe divers on board. A quick placing of gear (eacl item in its very own place), off come the mask and tanks. Quick chatter now among the crew We will soon know why they came up so soon.

David Ansley. "Did you see him the first tim Larry? He was coming right at you, on your lef side. You were shooting pictures, and I didn think you saw him. At first, I started to let hin come on by, but he looked like he was headin right for you. I swam up to him and punche him in the gills with my bangstick, and h veered off. I saw him circle and come aroun again, though."

Henry Ansley. "Man, he was something. I' say eight to nine feet long. I looked up and all could see was shark. He must've been three fee deep. I saw David punch him and saw him swin away. I also saw him come back. He didn hunch, though, or look like he was going t attack."

Jim Music. "It was a sand shark wasn't it They aren't supposed to be dangerous here. Bu

Larry Smith climbs aboard after meeting the shark.

I've heard they are in Australia. Boy, he was sure some fish. I felt small down there."

An excited chatter, with adrenalin flowing all around. The size of the shark wasn't enough to bother anybody, but the way he acted, circling, coming back for another turn, had made everybody nervous.

Larry Smith. "That was biggest shark I've seen since I've been diving." A chorus of me-too's from the crew.

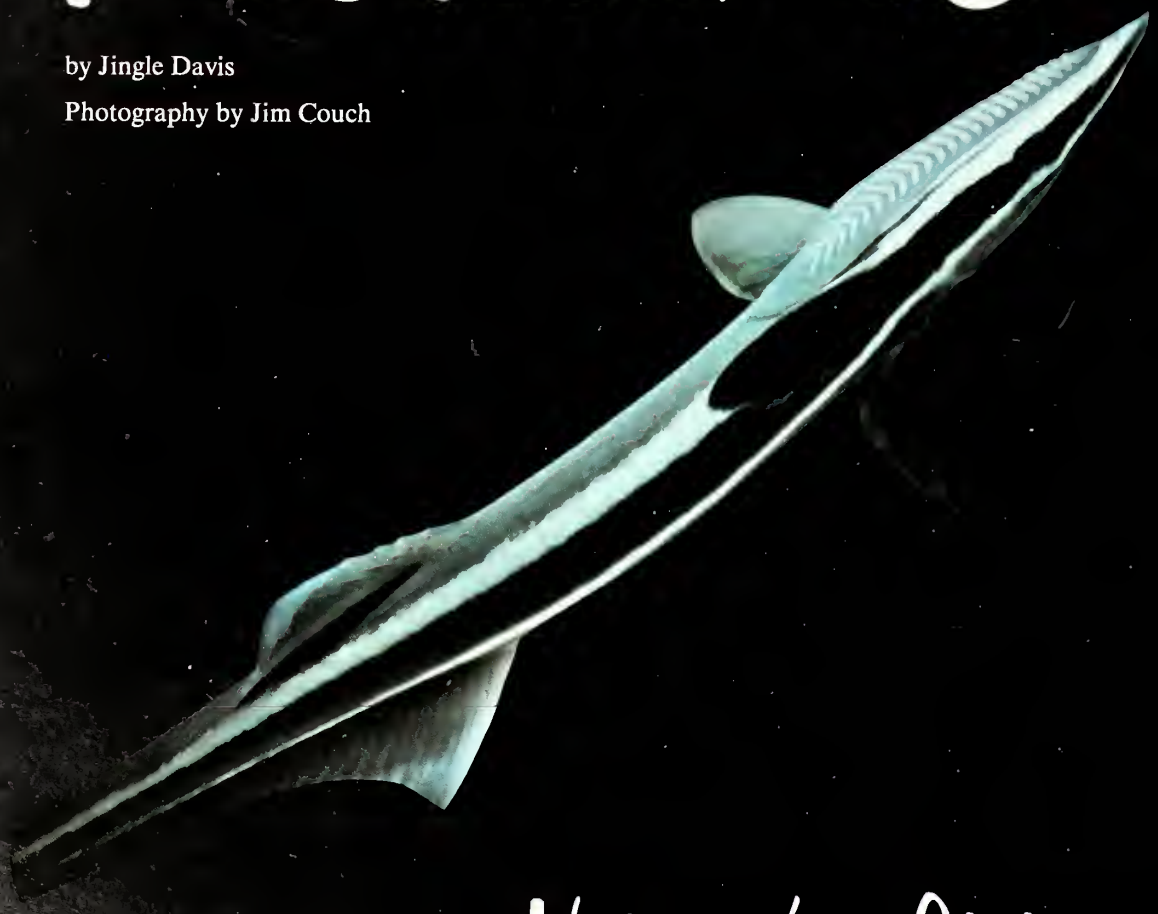
A quick check of the encyclopedia to confirm the identification of the sand shark. A bit of continuing nervous chatter to let the adrenalin flow away. Then, a serious bit of counting noses, comparing notes as to who saw what fish, how many, and how big they were. Then a stowing of the diving gear, and the 14-mile ride back home.

Just a routine day.

Remora

by Jingle Davis

Photography by Jim Couch



Nature's Living Fish Hook

Like a caged tiger, the remora in my office aquarium spends its days in ceaseless, restless activity. Its streamlined black body, laterally lined with two white racing stripes, undulates nervously back and forth, forming endless S-shapes.

Even when the sucker disk on top of the fish's head is stuck firmly to the aquarium glass, the foot-long remora continues its swimming-in-place movements. The skittish shrimp in the tank watch the remora with goggle-eyed wariness and race for the cover of a coral branch when the fish leaves the glass and whips off on a swift circuit of the tank.

For the remora, the aquarium must be quite a comedown. Its usual range is the ocean; its usual companions shark, barracuda, ray and giant sea turtle. Because of the oval-shaped sucker disk which the fish wears like a cap, it can hitchike with the fastest-swimming predators, dining effortlessly on scraps of food left over from its hosts' feedings. The remora isn't a parasite, though, and some scientists believe the fish may even benefit its hosts by cleaning them of pests.

Although the remora may never replace the baited hook for Georgia anglers, fishermen through the centuries have used the remora as a living fish hook.

In Australia, aborigines tie a line to the remora's tail and release the fish in the water, where it homes in on the nearest large fish or turtle and latches on. The small fish clamps itself to the larger one so tightly that the fishermen, by pulling the line, are able to drav their catch to shore or to a boat.

While fishermen must take care not to overstress the remora's body as they reel in the line, there is seldom a problem with the sucke disk letting go. The disk is composed of ridges which, when raised, create a partial vacuum. A backward pull of the fish's tail increases th suction by further raising the ridges—the hard the pull, the greater the sticking power.

DNR divers who spend time tagging the fis on Georgia's artificial reefs say shark may carry a half-dozen or more remora hitchhiker Occasionally the remora will leave the shark and take off on a short side-trip of its own. Scuba divers say the sight of a free-swimmin remora usually makes them peer into the opaq depths a bit more diligently.

"It isn't the remora that bothers us," one DNR diver commented. "But we do wonder what it came off of."

Although the remora in my office aquarium now only goes through the motions of swimmi with the big predators, it's interesting to have a close-up at this fascinating living fish hook.

OLD-FASHIONED CHRISTMAS

by Susan K. Wood

Photography by Bob Busby

Outside the cool, brisk air brushes against your cheek. Inside the scent of pine and cedar fills the air . . . visions of red and green abound amid the mellow gold of pine-panelled rooms. If you close your eyes, you can almost feel the warmth of a roaring fire, catch a whiff of cookies baking in the wood stove, hear children's laughter and the sounds of carolers far away.

It's an 1890s Christmas at the Lapham-Patterson House, an historic site operated by the Parks and Historic Sites Division of the Department of Natural Resources.

Thomasville's Victorian masterpiece, the Lapham-Patterson House is a sight to behold at any season, but it is one of those fine, old houses that seems to be made for the Christmas season.

Passing the wrought iron gate, you step into another era, a time when Christmas wasn't all electric lights and artificial trees. As you climb the front steps toward the wreath-flanked doors, you may hear the faint, slightly off-key chorus of young carolers.

"Deck the halls with boughs of holly . . ."

Here in the Great Hall, once again the scene of holiday merry-making, you'll see the children's carol brought to life. Holly, pine and cedar, all tied with red velvet ribbon, are everywhere. Overhead a bell shaped from greenery and mistletoe swings from the 12-foot ceil-

ing. And highlighting this huge room at Christmastime are masses of poinsettias, red and white, placed in corners and near the fireplace, wherever that Christmas touch is needed. Adding a distinctively Southern flavor—magnolia leaves.

And the tree . . . ah, that Christmas tree. A 12-foot beauty adorned with handmade ornaments, tinsel and popcorn strings graces the room. Some of the ornaments—the wooden soldiers and trees, baked-dough angels, spun yarn stars, stuffed animals, cornhusk dolls—will remain as part of a permanent collection for the Lapham Patterson House old-fashioned Christmases.

No one knows whose active imagination led to the design of the Lapham-Patterson House. Most believe C. W. Lapham, the first owner, had some input. Lapham, a wealthy shoe dealer from Chicago, was an eccentric fellow who lived through the great Chicago fire of 1871 only to be scarred, and understandably so, by a fear of fire. This is likely the reason each room in the rambling yellow house has at least one outside exit.

And maybe he was superstitious, too. A hex sign on the gate guards the entrance. And then there are the six-pointed stars on the third floo

)alcony—keeping out evil spirits? Maybe this)reoccupation also dictated the six-sided rooms ınd the spider-web pattern of the Great Hall loor. Aptly the house has been nicknamed a 'Hex of a House."

Described in the National Register of Historic 'laces Inventory Form as the "most exuberant nd daring Victorian mansion in Thomasville", he Lapham-Patterson House was completed in 885 when the city was a famed health resort. .apham had come to Thomasville for a winter isit three years earlier, "given up to die by the ıost noted physicians in the country." Finding ıe climate beneficial to his health—he suffered

Handmade ornaments like spun yarn stars and corn-husk dolls lend special meaning to this Victorian-era Christmas tree. Of all Lapham-Patterson House visitors, children delight most in the Victorian Christmas celebration just as did Tiny Tim in Dickens' "A Christmas Carol", set in Victorian England.

In the Great Hall, with the spider web floor pattern in the foreground, the giant Christmas tree garners attention. The custom of decorating a Christmas tree has a unique Victorian tie: Queen Victoria's husband Prince Albert introduced the tree into England. The slate mantle boasts more greenery, while above swings that cedar, pine and mistletoe bell.

Pomander balls and an antique pitcher filled with fresh greenery waft a delightful scent in the 1890s kitchen, now replete with original utensils, an oak icebox, wood stove and typical oak furniture. Antique tin cookie molds are representative of the Victoriana found on display in the Lapham-Patterson House.

Fireplaces once provided heat in rambling Victorian homes such as this one. For the Christmas celebration, a touch of greenery bedecks each hearth.

from inflamatory rheumatism—he decided to build a winter home here. So from December to May for the next ten years, he joined other winter visitors to Thomasville—among them, Buffalo Bill, John D. Rockefeller, Henry Grady and William McKinley—who enjoyed the good life of fox hunts, polo matches, harness races and cotillions.

But quizzical C. W. Lapham sold his winter residence in 1894 to James Larmon of Cincinnati. No one knows why he left the town of which he had apparently been so fond. The house was sold again in 1905 to James Gould Patterson whose family was the first to use the "Hex of a House" as a permanent residence. In 1970 it was optioned to Thomasville Landmarks, later sold to the city, then given to the state in 1971. And in 1974 the Victorian marvel became a National Historic Landmark, thus officially recognizing its architectural significance.

From the Great Hall's spider-web patterned floor to the third floor "gentlemen's game room", the house is, in a word, unique. Visitors find its lavish use of stained glass, winding staircase, oddly-shaped rooms and windows, and Mr. Lapham's self-contained gas system in the cellar fascinating—a look into an innovative, not-so-long-ago era.

Located at 626 Dawson Street in Thomasville, the historic site is open from 9 a.m. to 5 p.m. Tuesday through Saturday and Sunday from 2 to 5:30 p.m. The Victorian Christmas celebration begins the week before Christmas and continues for two weeks after Christmas Day.

Relive another era at the Lapham-Patterson House this December. Amid the red and green of poinsettias and stained glass, the fragrance of holly, pine and cedar, the cornhusk dolls, wooden soldiers, the angels and, yes, that magnificent tree, an 1890s Christmas in Thomasville is unforgettable.

The Lapham-Patterson House itself is unforgettable. Certainly one-of-a-kind, it is a prime example of "unbalanced symmetry and disorganized harmony," as the curator, Marty Willett, likes to say. It is certainly worth visiting any time of year, but at Christmas it is a picture-book . . . of Christmases past.

Why I Like to Hunt with You

by Gene Hill
Executive Editor, Sports Afield
Art by Mike Nunn

I've been thinking about why I especially like to hunt with you. I don't remember ever having a day together that I didn't enjoy, because you care much more about why we are together in the field than about what we take away in game.

I like the fact that you don't talk too much, don't make excuses and never brag — unless you say something nice about my dog, something more than being plain polite.

When we gun the covers that you've chosen, I know you always let me take the choicest spots and often pass up shots in hopes the bird will swing my way.

I know you count the few birds you've hit and lost against your limit, and I've seen you time and again refuse a chancy shot that might touch a bird we couldn't fairly bring to bag.

You always remember a little-something gift and take some pleasant time to chat with the men that own the land we like to gun. You make a point of stopping in the local store to say hello.

You've always been on time and do more than your share of the little things that make a hunt a happy day — regardless of the birds we've found — if any.

I always know that you know where I am in heavy cover. You are careful to let me know your whereabouts as well — and I have never, not once, looked down the end of your gun barrel. Nor do I ever expect to.

When the day is over and the guns are put away, you show me that your gun is empty. You know when to drink, how much and when not to.

You never complain about being too hot or too cold or too tired—unless you think I might feel the need of leaving early, and somehow you make it easy then for me to say "let's go." If you think I'm just plain tired, you say you are and suggest we sit and smoke a pipe and ease the dogs.

You always seem most pleased when I've had some sort of outstanding day. You never forget the few things I've done more or less well and tend to say "barely all right" about yourself, when in all fairness it was often just the other way around.

It seems you pick and clean more than your share of the birds — and then offer the most and choicest to the rest of us.

You manage to keep the camp cheerful, claim you like to cook and wash and dry as well as make sure of the wood supply.

And somehow everywhere I go you're there. You turned up my Texas bunkie who helped me do my whitetail buck in half the time and twice as well as I'd have clumsied it through all alone.

I remember the time you gave a stand that "wasn't very special," when we gunned an Arizona sunflower field for doves—and then marked my birds and quit when I had gone the limit even though your gunning day was far, far less than you deserved.

We met in Pennsylvania gunning grouse, and somehow you put me just so behind your soft-footed little setter where I got the kind of shots that even I can make.

You marked my singles down in waist-high South Carolina broom and never failed to say "nice shot" when I took one bird where I think you might have taken two.

I remember how well you called the pintails in that Utah lake and how you let me take first shots at swinging honkers on the Eastern Shore.

Sometimes I've called you Tex, or Billy Joe or Little Jib or Pat. No matter now—like the outdoors gentleman you are—names don't mean a thing. I know we'll meet up again this fall, and I'll be all the richer for it.

You'll be the man who remembers to bring a flashlight, an extra sweater and that I like my coffee black. And just in case I never said it to your face before, you're as big a reason as I know to spend a day outdoors. You make the days seem all too short and too few and far between, my treasured friend. You are everything that puts real meaning in that simple phrase "a Sportsman."

Observations on the Shooting Sports
Provided as a public service by
The National Shooting Sports Foundation

Letters to the Editor

Thank you for sending copies of your recent issue of *Outdoors in Georgia* devoted to endangered species. It is excellent! You and all of your staff members who contributed to it should be justifiably proud of the contribution it will make to a better understanding of Georgia's endangered species program.

Harold J. O'Connor
Acting Associate Director
United States Department
of the Interior
Fish and Wildlife Service
Washington, D.C.

In no other publication have I seen anything approaching the sweeping treatment of endangered and threatened species you gave your readers in the September, 1976, issue. My compliments on a needed editorial innovation.

Two comments that might appear critical but are intended as constructive occur to me.

One is that you might have devoted two issues to the subject, one on animals, the other on plants, and provided more detail on each.

The other is that the principal culprits responsible for putting plants and creatures in threatened or endangered categories were poorly identified or got off too lightly. I refer to people, people who have pursued single purposes with single-minded energy and persistence, thereby causing or helping to cause critical reduction in or alteration of required habitat.

In these United States we have long been notorious for our careless, thoughtless, and—yes—reckless disregard for whatever might stand between us and an economic objective.

William Voigt, Jr.
Blackshear, Georgia.

This note is to compliment you and your staff on your fine publication. It consistently has excellent photos and articles on Georgia.

The issue that prompted this letter was the "Endangered Species Issue" (September 1976). As I was going through the list of threatened plants I noticed the Coneflower mentioned. Although the Department of Transportation hasn't had the reputation for preserving such things in the past, we are striving to correct this reputation.

Your readers might be interested to know that a small bed of these Coneflowers was located and preserved by one of our highway maintenance crews, as part of the Georgia DOT's Wildflower Program. We in the DOT hope this program will continue to benefit the state by providing pleasant patches of color for motorists traveling our roads and t the same time preserving and enla ing Georgia's wildflowers.

William I. (Bill) Allgood,
Editor, The Georgia
TRANSLATOR
Department of Transportat

Your September issue of *Outdo in Georgia* was very well compos and presented the issue of *Endang ment* extremely well. "Opening Da was great. Remember where that r cord salt-water trout fisherman w from?

Keep up the good work. By t way, that's the biggest damn Ki land's Warbler I've ever seen on t cover!

Donald L. Berryhill
Okefenokee CESA
Waycross, Georgia

The Wisconsin Department Natural Resources has recently r ceived the September 1976 editi of Outdoors in Georgia. This editi is of special interest to us because your excellent section on Enda gered Species (although we do no that your Kirtland's Warbler looke very much like a pelican).

An additional copy of this editi would be most useful and great appreciated by the Bureau.

Ronald F. Nicotera
Endangered Species Coordinato
Bureau of Wildlife Managemen

For the Record:

This is not a Kirtland's Warbler——————this is.

The Eastern Brown Pelican *on the cover of our September Issue is courtesy of Don Pfitzer, S.E. Region, U.S. Fish and Wildlife Service. The* Kirtland's Warbler *on pages 19 & 25, courtesy of Michigan DNR.*

I have been a subscriber to *Outdoors in Georgia* for many years and have enjoyed all of them. The stories, articles and publications you have are all very educational and have made the magazine much larger than earlier ones but with less information.

Today, Sept. 15, I received my September issue. To me this seems a little late in the month as far as finding out when dove season opens. Now, I will have to call to find out when bow season for deer opens. It sure would be a help to set up the date for fishing and hunting and publish them a month ahead. I'm sure it would also stop your phone from ringing so much.

All in all, I still think your magazine is tops.

Eugene R. Davis
Atlanta, GA

The problem with publishing the dove seasons is that the dates are not available when the September issue is laid out in July.

My husband and I read "Opening Day" in September 1976 *Outdoors in Georgia* and thoroughly enjoyed it. I have tried to purchase a copy of *Dove Hunting* by Charles Dickey and found it to be no longer available. Why don't editors research more carefully the availability of books before whetting the readers' appetite with glowing accounts of their usefulness and enjoyability? It's quite disheartening to find things out of print when you have just read about them in a new magazine. My husband has requested this book as a Christmas gift which makes it all the more frustrating.

If the book is still available please let me know as I am quite anxious to purchase a copy. We both enjoy *Outdoors in Georgia* and look forward each month to its arrival. Thank you for your help.

Mrs. W. Brooks Maddox
Rome, Georgia

I enjoyed your article "Opening Day" in the September issue of *Outdoors in Georgia.*

I am interested in getting a copy of the book *Dove Hunting* by Charley Dickey that you mentioned.

I checked the public library and they did not have it and they said from an information book they had that it showed as being cancelled.

Please tell me where I can get a copy.

C. T. Brisbos
Albany, GA

In checking on the status of Charley Dickey's Dove Hunting, *we find that this book is available from the publisher. Write Oxmoor House, Inc., P.O. Box 2463, Birmingham, Alabama 35202. The book costs $2.95 in paperback.*

* * *

Sorry to be so late, but am just getting around to indexing items in this year's *Outdoors in Georgia,* so have only now discovered the error described below.

"Skidaway State Park", page 27, March 1976—"Until last summer, Georgians visiting Savannah could stay either at a motel or a private campground." For about ten years, the City has operated a campground in Bacon Park. So there has been for many years a public campground in the immediate area—about 20 minutes from the inner city and on the beach or eastern side of the city. I'm surprised our alert mayor, Mr. Rousakis didn't come roaring to the defense of his city. He gets real 'riled up at such public statements which he considers derogatory to his city.

Virginia Brown
Savannah, Georgia

Perhaps the "Pulaski at Savannah" article in our July issue pleased Mayor Rousakis and averted the "roaring defense."

Thank you for the article in your *Outdoors in Georgia* July issue about "Pulaski and the Seige of Georgia."

Being of Polish heritage, a much maligned people, we enjoyed the article by Mr. Hammack.

On a recent trip to Georgia, we were disappointed that so little was written about the Polish contributions to American history.

Benjamin Franklin had solicited the services of able bodied Poles during the Revolutionary War, they fought, many were killed. Others remained, raised their families, their roots go back to the 1600's.

They are a proud people, industrious, but have been passive in proclaiming their own worth. One Polish proverb is "What is good, is self laudatory." However, that does not hold true today. I have personally found that *vociferousness* and *brashness* do have merits but are *not* justified. Poles are *not* that!

So, again, in appreciation, and since we did enjoy Savannah when we visited there, thank you!

Helene Paegala

* * *

I am not a native of this great state yet I sometimes feel quite native since I have lived in Warner Robins since 1948.

An avid outdoorsman who loves to hunt, fish and hike through the forest and swamps, I naturally enjoy reading about the experiences of other outdoorsmen throughout Georgia—your magazine has done an outstanding job of covering our great state, its hunting and fishing from mountain streams through the swamp and cutoffs and beaver ponds to the sea.

You really put the icing on the cake so to speak when you began the historical features. Your native and transplanted Georgians ask yourself how much you really know about your state! I have learned more about Georgia in the past couple of years than I learned throughout my entire years in school.

I think you have turned a so-so magazine into a top notch issue that is enjoyed more now than ever by everyone.

Maintain the high quality articles, stories and features about our hunting, fishing, etc., yet keep these historical and highly educational features coming.

I would like to make one small suggestion. You have featured the poisonous snakes—in color. Why not a feature on poisonous spiders, ticks, etc., in color?

Thanks for many hours of fine reading. Keep up the good work.

Jim Saddler
Warner Robins, GA

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