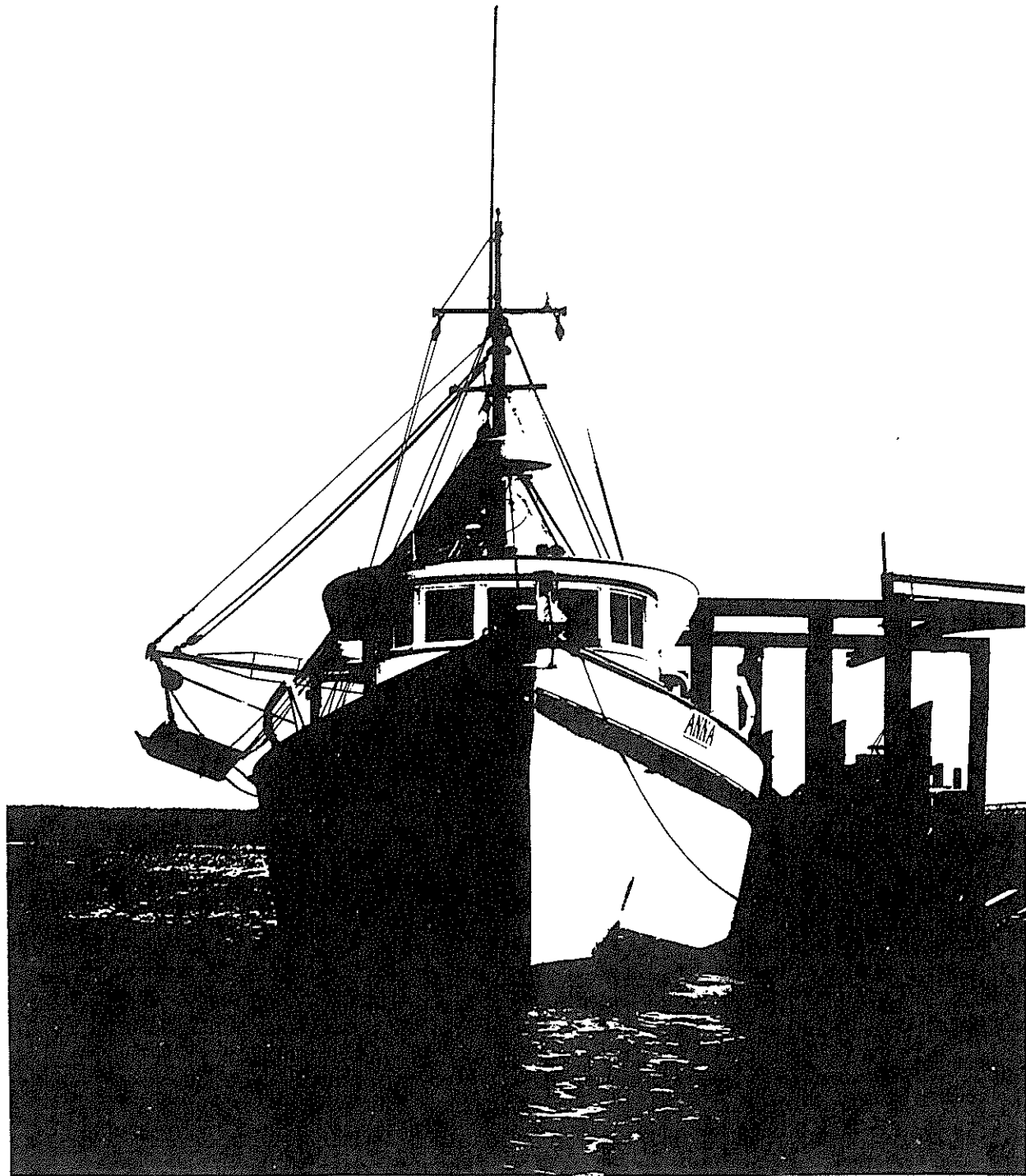


November-December, 1979

Volume 2, No. 4

# Coastlines

GEORGIA





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**COASTLINES GEORGIA** is published by the Coastal Resources Division, Department of Natural Resources, 1200 Glynn Avenue, Brunswick, Georgia 31520.

**Dr. Robert J. Reimold, Director**  
**Steve Olsson, Editor**



# --Another Look--

**Coastlines Georgia** looks a little different. But then again, it always has. Almost two years ago it was founded on a concept to present readers with news and features through text and pictures -- clear, concise and interesting. It continues to do so.

**Coastlines** has recounted the activities of giant moveable oil rigs off our shore, the construction of artificial reefs to enhance fishing, the progress of management in our coastal zone, some lean years for shrimping -- and some good ones. Promising even a wider variety of stories, **Coastlines** will follow the 80's just as closely.

Fisherman, businessman, bureaucrat, or concerned citizen, your interest in Georgia's coast may stem from activities associated with management, education or research here, the use/misuse of its resources, its sudden growth and popularity, or the coast's unique aesthetics. If your interest has not been aroused, the following pages should accomplish that.

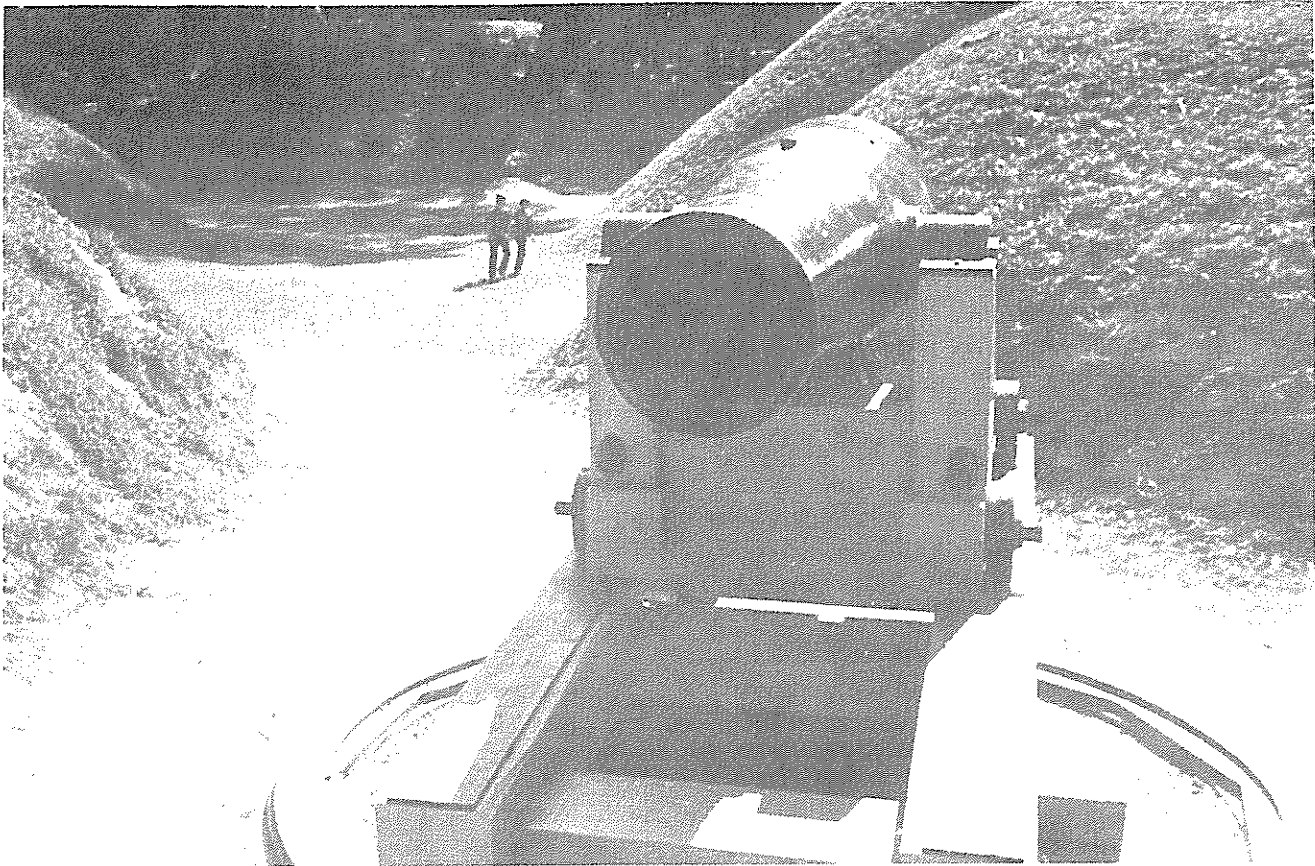
Managing our coast is still a tremendous challenge. Attracted, awed, overwhelmed, and often confounded, we face a number of hows, whens, and whys that likely prompted the paradox by Francis Bacon: "In order to control nature we must first obey it."

This is my first solo venture as editor of **Coastlines Georgia** and naturally a special one for me. What keeps **Coastlines** consistently special are the people behind it. Concerned, committed, careful people. People dedicated to something they consider special and hopefully you do too -- Georgia's Coast.

--Steve Olsson

## About The Cover

The research vessel **Anna** is essential in fishery assessment projects along Georgia's coast. The 60-foot trawler, crewed by Captain Leonard Reddick and First Mate Jack Evans, was photographed on special ortho print film by Richard Mahood.



**FIRE ONE!--Confederate cannons such as this defended Savannah against Union maritime attacks. The earthen ramparts behind it housed soldiers, supplies, munitions and even a small scale hospital.**

## BEGINNINGS -- A Guide To Coastal Historic Sites

The coast is where Georgia's history began. The first Europeans to come to Georgia were sailors who explored some nameless tidal creek in search of fresh water and food. They found the Guale Indians living on the coast, and called the area Guale, after its aboriginal inhabitants. Peaceful foragers and farmers, the Guale welcomed the explorers to share the beauty and bounty of Georgia's coast with them.

The Spanish colonized Guale in 1565, and for almost 150 years mission bells rang out over the sea islands and mainland. However, with the advent of the 18th century, the British and their Indian allies began raiding the Guale towns and missions. By 1702, the peaceful Guale and outnumbered Spanish had fled to St. Augustine, leaving Georgia's coast forever.

The coast slept undisturbed until French explorers began probing eastward down the

Altamaha River. They were looking for a downriver route south of Carolina that would allow direct access to the Atlantic. The British feared the French would colonize the Altamaha and block British expansion into what is now Georgia, creating a French territory that would then threaten all the southern British colonies. In 1721 South Carolina Provincial Scouts built Fort King George on the Altamaha delta, blocking French expansion from Louisiana and serving as the cornerstone for British occupation of Georgia.

In 1733 James Edward Oglethorpe founded Georgia as a buffer settlement to protect the other British colonies. The new colony occupied the coastal plain between the Savannah and the Altamaha Rivers, and also

(Continued)

gave the British control of the Indian trade with the southeastern tribes. The settlers were to produce valuable semi-tropical crops such as silk, wine and spices, although these exports never materialized.

By the eve of the American Revolution Georgia's coast was dotted with thriving communities: Savannah, Hardwick, Sunbury and Midway, Darien, Brunswick, St. Marys. The settlers produced timber, naval stores (tar, pitch, turpentine) and grew indigo and rice. Coastal planters diked and drained thousands of acres of marsh at the mouths of the mainland rivers to grow rice. Long-staple cotton was imported from the Bahamas about 1785. Plantations on the barrier islands and adjacent mainland produced this sea island cotton, which sold for two to five times the price of the short-staple upland variety.

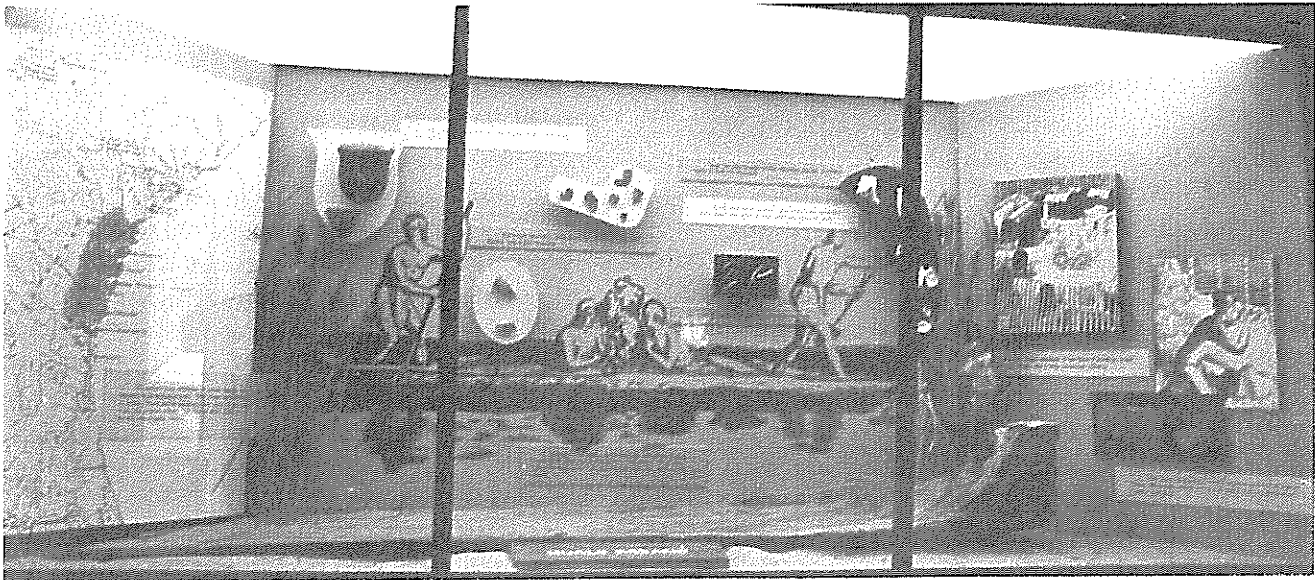
Civil War devastation and the abolition of slavery crippled the coastal plantation economy. The survivors tried to restore the

plantations using paid labor, but freed slaves provided unreliable. To worsen matters, a series of hurricanes destroyed crops. Faced with competition from Louisiana, Arkansas and eastern Texas, the postwar plantations collapsed. Georgia's coast fell from one of the most prosperous areas in the early nation to one of the poorest. The coast slept; lost and forgotten.

Today Georgia's coast is waking up, and proudly preserves its history for all to appreciate and learn. One of the best ways to experience coastal history for yourself is to visit five state historic sites which operate under the auspices of the Georgia Department of Natural Resources. Fort King George, Wormsloe, Sunbury, Fort McAlister, Hofwyl: They interpret coastal Georgia's history from Gule Indians and Spanish missions to the decline of post-Civil War rice cultivation and 20th Century timbering. Come see for yourself.



**BACK IN TIME--**Tinsel-like spanish moss hangs from live oaks at Wormsloe Plantation. The vaulted pathway guides visitors to the main house, tabby fort ruins and a newly completed interpretive center.



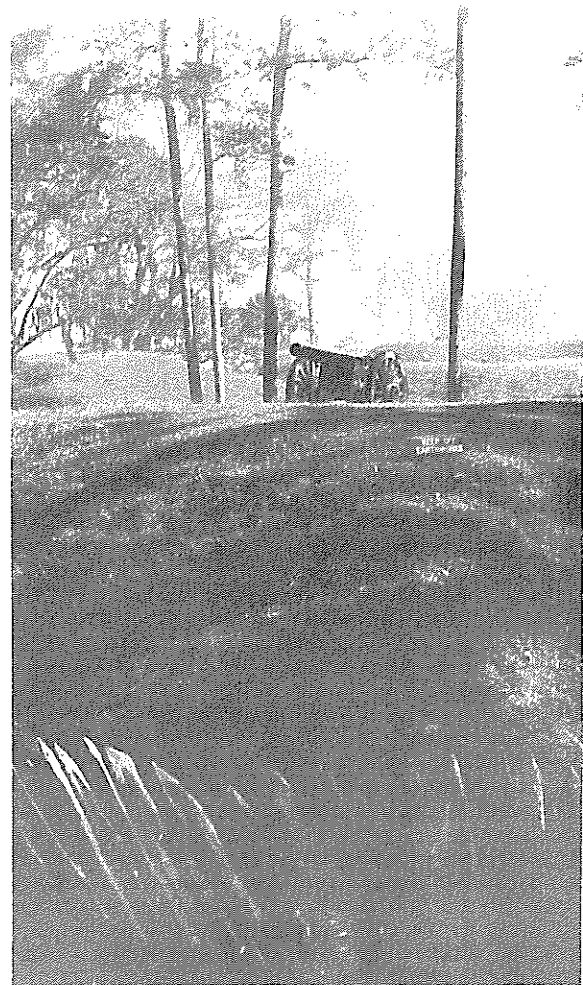
**A STORY TOLD--**Informative displays such as this one at Ft. King George preserve historic artifacts, helping visitors piece together puzzles of the past.

### **FORT KING GEORGE**

Fort King George Historic Site interprets both the oldest and the most recent of coastal Georgia's history. Once the site of a large Indian village and Spanish mission, Fort King George was built by the British to block French colonization of the Altamaha River and coastal Georgia. The British and their Indian allies had driven the Guale Indians and Spanish from the coast by 1702. When the Yamasee War in 1715 blocked British penetration into the interior, the French began expanding eastward from Louisiana territory (actually centered around Mobile, Alabama at that time), searching for an overland and downriver route to the Atlantic. Fearing French encirclement, Col. John Barnwell led a small party of South Carolina Provincial Scouts to fortify the Altamaha in 1721, and made the region British. The historic site also interprets the Scots military colony of Darien and the coastal timbering industry.

### **WORMSLOE PLANTATION**

"Wormsloe" was the name given to a royal grant of 500 acres on the Isle of Hope to Noble Jones. One of Savannah's original colonists, Jones commanded a company of rangers. In 1737 the troops constructed a fortified tabby house on Wormsloe controlling an inland water route to Savannah, as an outlying defense for the city. During the coastal plantation era Wormsloe was more of a country estate than a working plantation.



**SOLITARY DEFENDER--**The soldiers gone, the gun silent, this lone sentry tells a story of days past and coastal Georgia's history.



Confederate batteries constructed on the Back River at Wormsloe guarded one of the waterways to Savannah during the Civil War. However, they were garrisoned only occasionally and never saw action.

#### **SUNBURY HISTORIC SITE**

Sunbury, now one of the "dead towns" of coastal Georgia, was once a thriving seaport. Located on a low bluff overlooking the Midway River and St. Catherines Sound, Sunbury was laid out in 1758 on a 350 acre tract. The town was built at the coastal terminus of an Indian trail which led inland to the mountains. During the Revolutionary War Sunbury's residents fortified the town, and it served as the base for three expeditions against British Florida. The invasions failed to devastate Florida, and during the British retaliatory invasion of 1779 Sunbury's Fort Morris was taken after a short bombardment. The British renamed it Fort George and used the fort as a prisoner of war camp. The war's end saw both town and fort in ruins. The war of

1812 prompted Sunbury to refortify the bluff and name the site Fort Defiance. Confederate troops garrisoned it during the Civil War.

#### **FORT McALLISTER**

Fort McAllister was the southernmost confederate fortification guarding Savannah from attack by sea. Constructed on the south bank of the Ogeechee River at Genesis Point, Fort McAllister successfully resisted attacks by Union ironclads and proved that earthwork forts could withstand the heaviest naval guns of that time. When Sherman captured the fort by land on his march to the sea, Savannah's fate was sealed, and the Confederates evacuated the city.

#### **HOFWYL-BROADFIELD PLANTATION**

Hofwyl-Broadfield was a working rice plantation on the south bank of the Altamaha River. Throughout the 19th Century, one family grew rice on the narrow bands of marsh converted by slave labor into rice fields. Today Hofwyl-Broadfield Historic Site demonstrates the origin, development and



**A GLIMPSE OF THE PAST--**The main house, its furnishings and the surrounding grounds at Hofwyl-Broadfield Plantation have remained virtually unchanged for five generations. Inside the house, visitors find everything much the way it was when Miss Ophelia Dent occupied the main quarters.

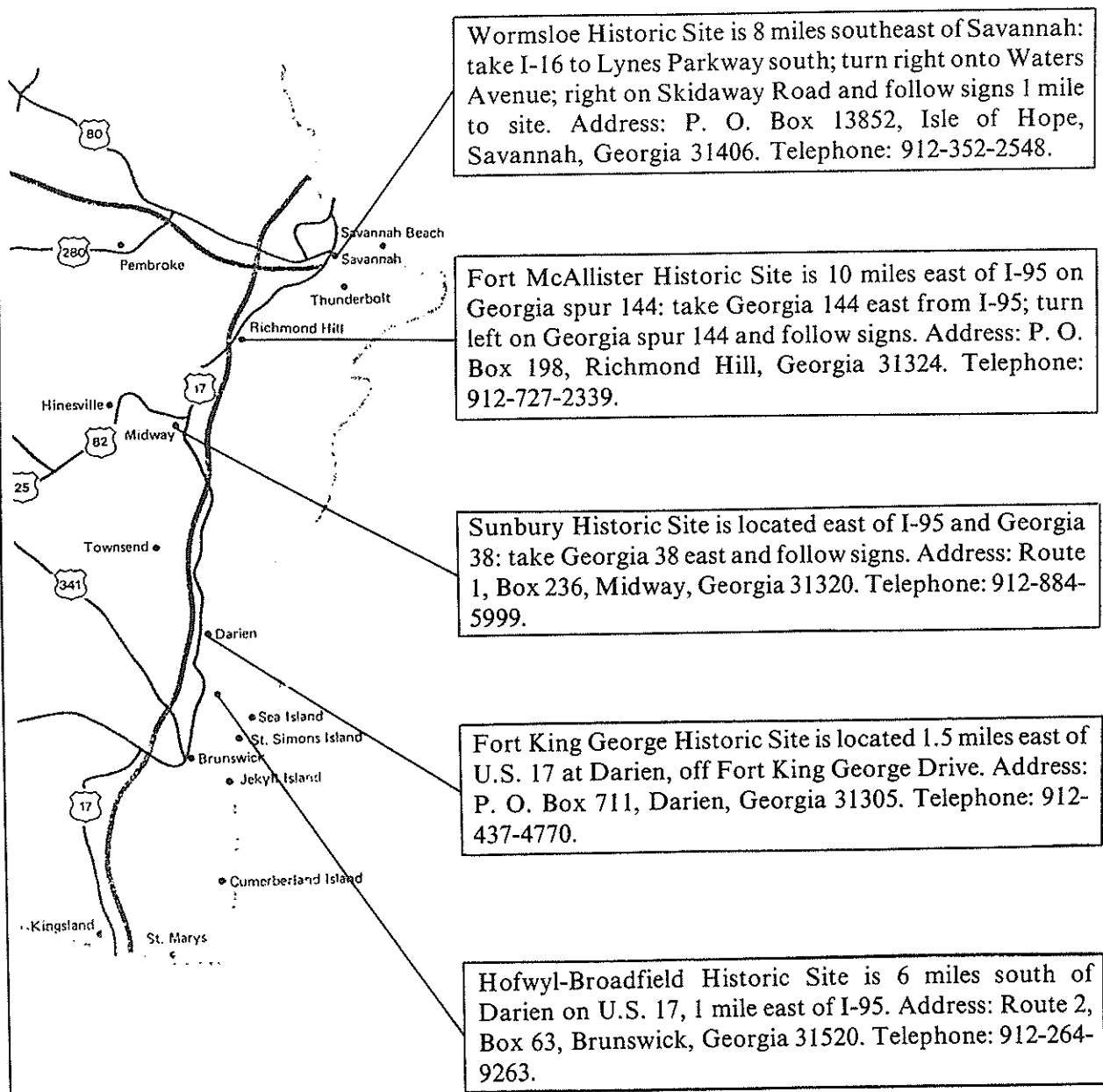
decline of a coastal rice plantation from 1807-1915. The site interprets the agricultural and business activities characteristic of cultivating rice and managing a rice plantation. On the human side Hofwyl-Broadfield offers a glimpse into the lives of people who worked rice plantations: planters, overseers, slaves.

Georgia's coast is a place apart. In terms of

history, the coast is the oldest part of the state, and today the coast harbors more museums and historic sites than any other section. People live with history on the coast; they respect it; they love it. You will too. Come see for yourself.

--Norman Edwards  
Photos--Mimi Spahn

## Getting There . . .



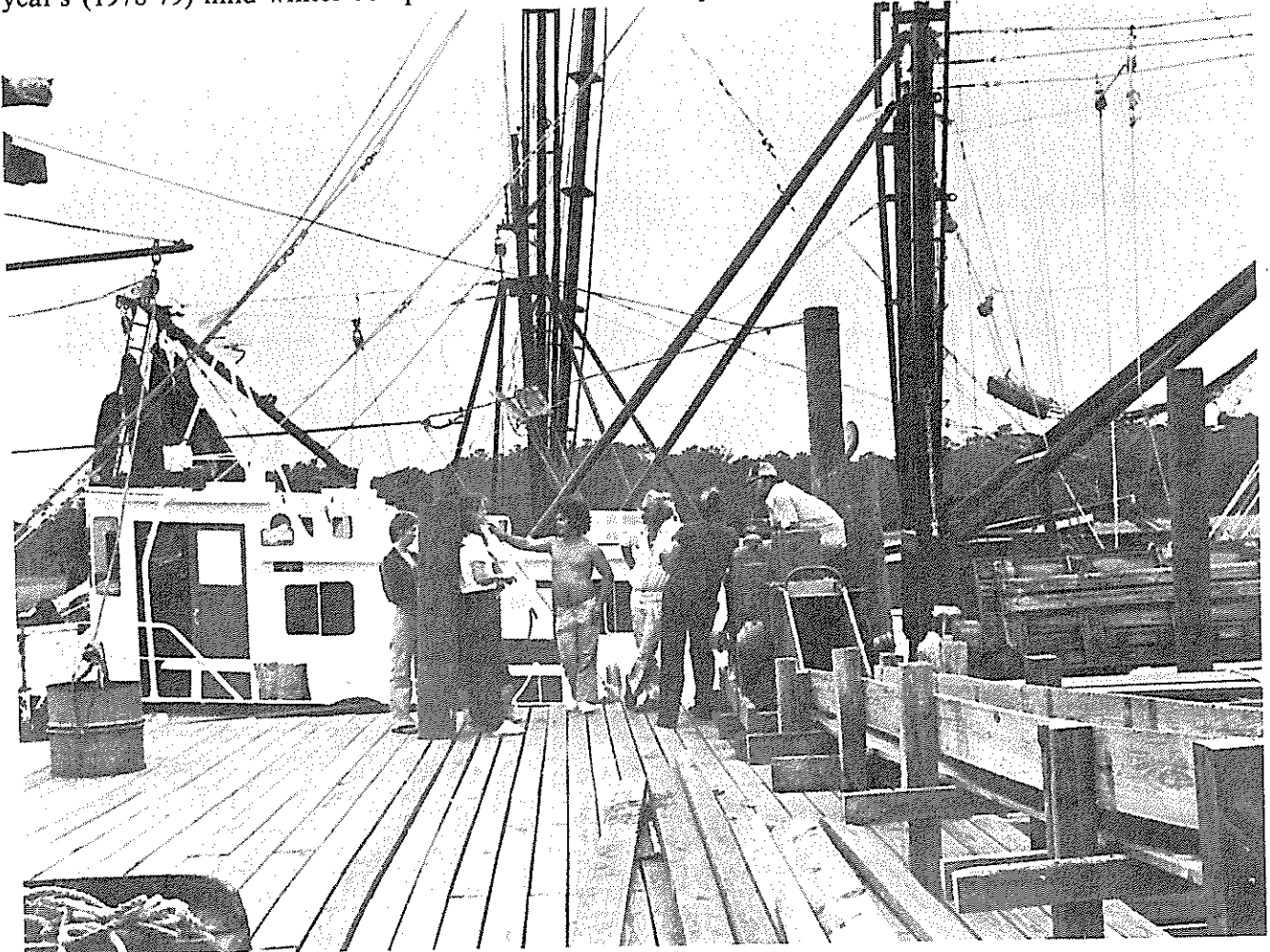
# Georgia Shrimping: How Good A Year?

After some hard luck in the past, Georgia shrimpers have been experiencing a very productive year with regard to pounds of shrimp landed and value per pound. From January through October, total Georgia landings amounted to 7,362,000 pounds (heads on) of white, pink, brown, and rock shrimp. For the same period in 1978, total shrimp landings for Georgia amounted to only 4,130,000 pounds. The additional 3,232,000 pounds represent a 44% increase from 1978 to 1979.

5,694,000 pounds of white shrimp were landed through October 1979, compared to 2,823,000 pounds in 1978. This 2,871,000 pound increase means this year's catch was up 50% over last year's. The reason for the tremendous increase in white shrimp was last year's (1978-79) mild winter compared to the

previous two cold ones that killed much of Georgia's over-wintering white shrimp. Last year's mild winter allowed the over-wintering white shrimp population to survive, greatly increasing the number of potential spring spawners. Needless to say the spring spawn of 1979 was a great success.

The story for brown shrimp was somewhat different, however. Brown shrimp landings for 1979 remained quite similar to 1978 totals. Through October of this year, 1,147,000 pounds of brown shrimp were landed compared to 1,250,000 pounds in 1978. The hardier brown shrimp remain stable through cold winters because their growing cycles differ, allowing them to be at different, less vulnerable size stages and geographic locations during December, January or February: potentially dangerous cold months.



Port sampler Jolaine Hall and Biologist Susan Shipman talk business with shrimpers at Gore's Seafood in Valona. A total of 35 coastal port sites are surveyed to determine size, numbers and species of shrimp landed in coastal Georgia.



A comparatively new fishery in Georgia rock shrimp have accounted for landings of 57,000 pounds through October of this year. Pink shrimp landings have been approximately 40,000 pounds.

Off the boats, the dollar value per pound for shrimp landed this year in Georgia ranged from above \$6.00 per pound at the beginning of the season to \$4.60 per pound at present. The estimated dollar value for shrimp, landed in Georgia for the month of October 1979 alone was 5.5 million.

Currently, shrimpers are catching 1 to 2 boxes per boat per day of 21-25 count shrimp which bring \$4.90 per pound. Most shrimpers contacted feel that closing the sounds to power

drawn nets has benefitted them greatly and that this year is potentially one of their best years. Shrimpers reported a slight decline in catches during the first weeks of November due to bad weather and flood tides but say that catches are now beginning to pickup.

Like the shrimpers, Georgia's blue crab fishermen and dealers are also experiencing a very good year. Blue crab landings for January through October, 1979 amount to 9,965,000 pounds compared to about 1,000,000 pounds (heads on) for the same time period last year. Shrimpers, crab fishermen, dealers and coastal researchers express hope that this successful trend will continue.

--Bob Palmer

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## Shrimp Tagging Continues

In recent years, especially after the unusually severe winter of 1977-78, coastal Georgians increasingly realized the importance of their valuable shrimp resource and the fact that there is still much to learn about the habits and life-cycles of this resource. Aware of the substantial contribution of these crustaceans to Georgia's economy, the Coastal Resources Division began a four-year federally funded shrimp tagging project in June of 1978.

The purpose of the study is to document the movement patterns of shrimp in the waters of Georgia and its surrounding states. From these patterns, researchers determine seasonal and geographical abundances of commercial size shrimp, as well as their length of stay in Georgia waters. The project investigators also seek to discover information on shrimp growth and mortality rates and life-spans.

To date, approximately 11,000 shrimp have been tagged as part of the project. Basically, the procedure involves capturing large numbers of shrimp, which are then individually identified and recorded as to species, sex, length, physical condition and reproductive stage. Each shrimp is then tagged with a spaghetti-like streamer bearing an identification number and released.

Upon their recapture the shrimp are re-examined and their statistics again recorded. From comparisons of the two sets of records, movement patterns and growth rates are

plotted and analyzed.

Since the success of the study depends on the recovery of large numbers of tagged shrimp, it is essential that the project receive the support of Georgia's commercial shrimpers and sport fishermen. The Coastal Resources Division has notified the public to be on the alert for any shrimp bearing red, yellow, or white tags, and has asked anyone who catches such a shrimp to please return it to the Coastal Resources Division. So far the response to the request has been good and many rewards from \$2.50 to \$25.00 have been issued in appreciation to those people who have participated in the study.

Shrimp tagging jars are located throughout the coastal area. Fishermen finding tagged shrimp are urged to return the shrimp to one of the locations listed as follows. Reward returns usually take about two weeks.

### Shrimp Tagging Jar Locations

Camden County--St. Marys: Dickey & Sons Seafood, Lang's Seafood, Miller's Seafood, Crooked River State Park, Jacks Bait.

Woodbine: Higgenbotham's Seafood.

Kingsland: Pound's Live Bait.

Waverly: Ocean Breeze Campground.

Glynn County--Brunswick: City Market, Knight Seafood, Lewis' Crab Company, Moreira Shrimp Company, Burgess' Crab

(Continued)

House, Georgia Department of Natural Resources-Coastal Resources Division, Brunswick Marina, Two Way Fish Camp.

Jekyll Island: Jekyll Island Seafood, Mac's Bait.

St. Simons Island: Bennett's Bait, Golden Isles Marina, Gisco Seafood.

McIntosh County--Darlen: Skipper Seafood, Brown's Seafood, Thompson's Seafood, Boone's Seafood.

Ridgeville: Blackbeard Cove Marina.

Meridian: Meridian Shrimp Company.

Valona: King Shrimp Company, Redding-Forsyth Seafood, Jacobs Seafood, Sea Gardens Seafood.

Shellman Bluff: Kip's Fish Camp.

Belle Bluff: Belle Bluff Campground & Marina.

Crescent: Brannen's Seafood, Ward's Seafood, Phillip's Seafood.

Liberty County--Sunbury: J. W. Morgan's Seafood.

Yellow Bluff: Yellow Bluff Fishing Camp.

Colonel's Island: Colonel's Island Marina.

Bryan County--Richmond Hill: Sikes Seafood, DNR Demeries Creek Law Enforcement Office.

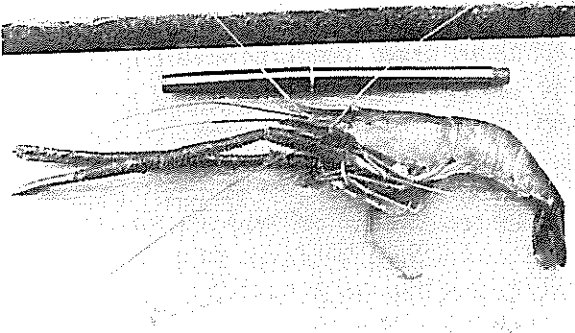
Chatham County--Thunderbolt: Cesaroni Seafood, Ambos Seafood, Quality Seafood.

Savannah: Jackson's Seafood, Sapp's Bait, Harrison's Bait, Coffee Bluff Fish Camp, Skidaway Island State Park, Russo's Seafood.

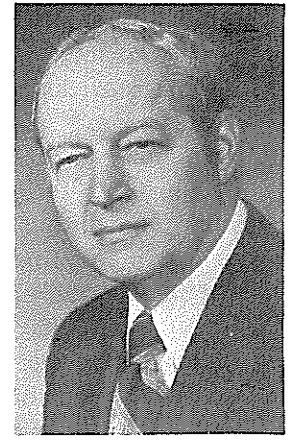
Willington Island: William's Seafood.

Tybee Island: Boan's Seafood, Maye's Seafood, Chimney Creek Fishing Camp.

--John M. Pafford



*Macrobracium ohione* is what the label on the specimen jar will say. Coastal residents however, may recognize this species as a brackwater shrimp. The stout-bodied critter prefers the grasses of fresh to brackish waters in local rivers and streams. The shrimp was found by Lamar Gore of Valona.



St. Simons resident Mildred Wilcox (left) and James M. Piette (right) of Savannah

## EPD Committee Formed

The statewide Environmental Public Participation Advisory Committee formed by the Environmental Protection Division of the Georgia Department of Natural Resources in October, held its first meeting Nov. 8, 1979, in Atlanta, Georgia. This committee was established to make certain that the Georgia public will be a part of the decision-making process and that public officials are aware of the citizens' attitudes.

The committee reflects various segments of the Georgia public including private citizens, representatives of environmental interest groups, public officials and economic interest groups.

Two of the sixteen members are from the Georgia coast. Mrs. Mildred Wilcox of St. Simons Island represents the private citizen sector of coastal Georgia. Mr. James M. Piette, Senior Vice President of the Union Camp Corporation, Savannah, Georgia, represents the Georgia Chamber of Commerce.

The next meeting is scheduled for December 19, 1979, at which time a chairperson will be elected. The public is invited to this session, which will be held in Room 605, 270 Washington Street, S.W., Atlanta, Georgia.

For further information contact Liz Carmichael Jones at 404/656-4713 or write to Environmental Protection Division, Room 823A, 270 Washington Street, S.W., Atlanta, Georgia 30334.

## Coastal Education Update

# Up Your Estuary

Quick for 25 points, correctly define an estuary. It is:

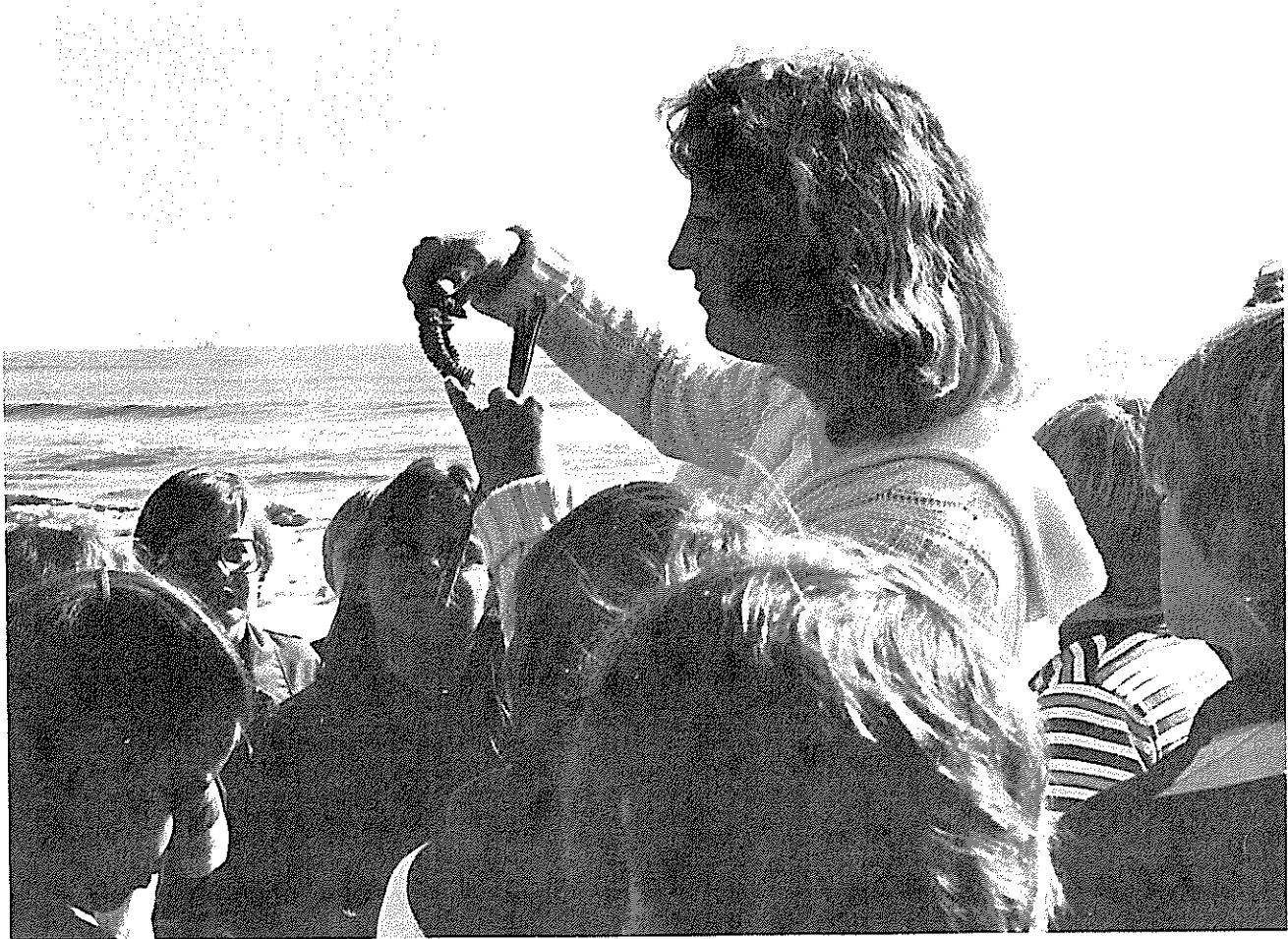
1. a rare wading bird
2. a drink you swill from a Mason jar
3. a large vase or container
4. a semi-enclosed area where fresh water and sea water mix

As a coastal resident or visitor, you naturally won the 25 points by correctly answering number 4, right? Maybe not. The word "estuary" usually conjures up only confusion in most people's minds, even folks who have lived alongside estuaries all their lives -- who have fished, crabbed and waterskied through them, and whose seafood diet reflects the nurturing work on estuary performs.

Perhaps you call an estuary a "sound." Along Georgia's coast, our large estuarine areas are commonly known by this term. The name is not that important, but the estuaries' functions are. Cycles in an estuary make possible the life style that we enjoy and the resource upon which our commercial fishing industry depends.

Coastal Resources Division's public education program strives to show people why Georgia's estuaries are so vital to life along the coast. By taking people into the marsh and onto the beach, we demonstrate how their environment works, helping them become aware of their unique natural surroundings.

The public education program exists



**IT'S NOT A NECKLACE--CRD Intern Patty Snow pulls apart individual sections to give students a good view of this whelk egg case. These strings of disc-shaped sacs often wash up on the beach, and look very much like rustic jewelry.**

because we have a national estuarine sanctuary in our area, at Sapelo Island. One major responsibility of the sanctuary program is to provide educational opportunities to the public. Because not everyone can or wants to travel to the sanctuary itself, CRD public education staff bring the lessons of coastal environment to more accessible areas as well.

The program is adding new dimensions, both on the mainland and on Sapelo Island. A few highlights are included here.



**MARSH BROOM--**This sweep net, demonstrated by Wanda Roberts, is used by scientists to collect insects that graze on marsh plants. Although Wanda's technique was flawless, her cast over the *Spartina* plants netted only one small grasshopper.

#### **Overlook Park Boardwalk A Marsh Microcosm**

Early this fall, a project that was preceded by fits and starts drew to a successful conclusion. Overlook Park, located just north of CRD offices on Highway 17, now includes a boardwalk that spans a tidal creek and healthy

stand of *Spartina alterniflora* (smooth cordgrass) marsh.

Even before the final nails were driven on the sign erected, the boardwalk began to attract visitors. People came to peer over the side at fiddler crabs or brine shrimp; many brought their gear and fished or crabbed off the dock on the end of the boardwalk.

Official dedication of the new structure is not far off. Interpretive aids will soon be available for people who want to identify the plants and creatures they can see from the boardwalk. Meanwhile, CRD employees have taken several school groups along the boardwalk's extent, sharing with students the techniques of cast netting and plankton sampling the tidal waters.

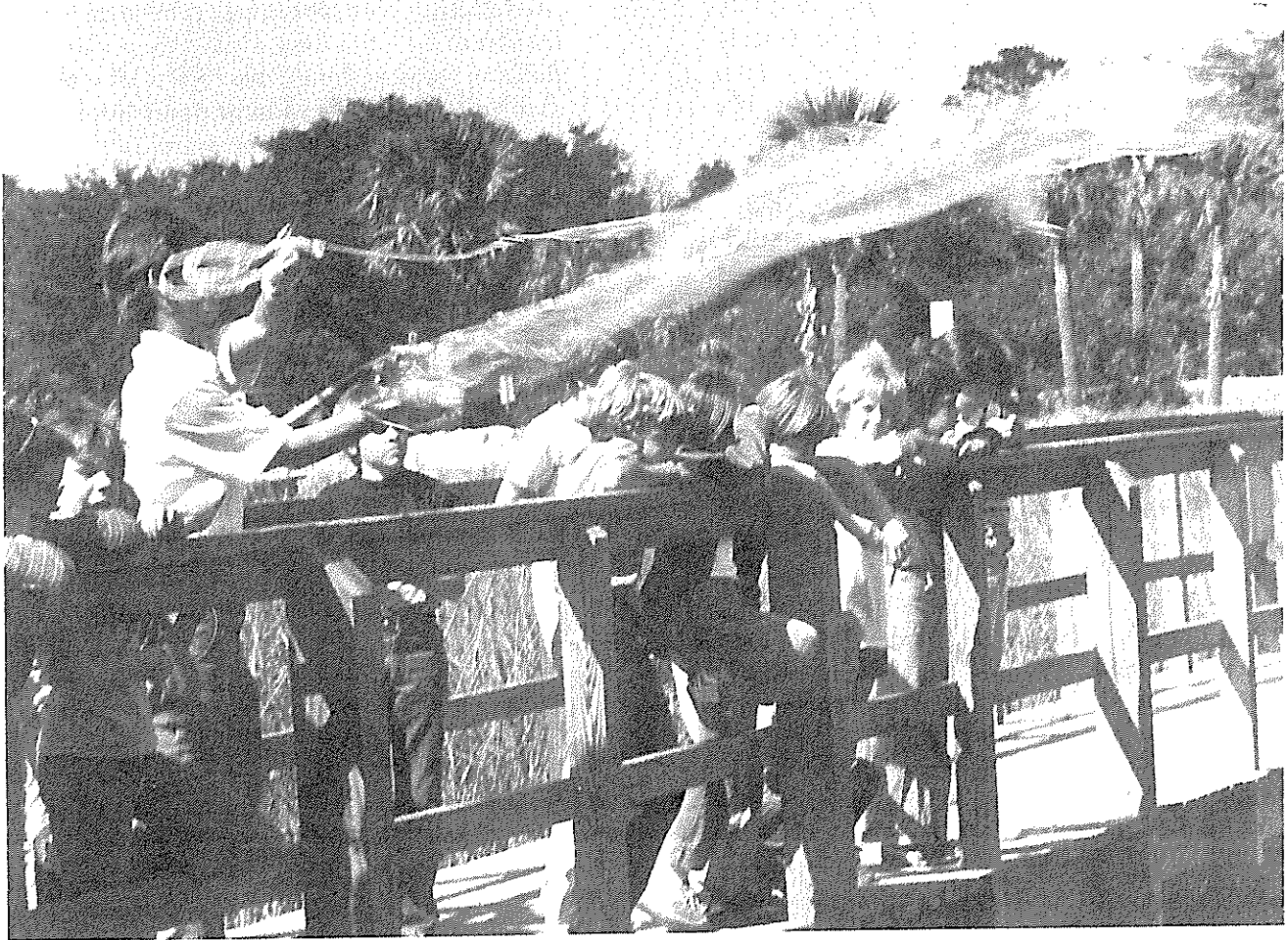
#### **Sapelo Tour**

Now that the Department of Natural Resources has operated its Sapelo Island National Estuarine Sanctuary public visitation program for over a year, it's time to mention a few things that have changed over that period. We've added a few new routines to our repertoire and revised the Sapelo Queen schedule to accommodate rising fuel and operations costs.

Tours of Sapelo Island National Estuarine



**HOW MUCH SALT?--**This student takes a crack at reading a refractometer, an instrument which measures water salinity. At Overlook Boardwalk on a high tide, students found that the water contained 22 parts salt to one thousand parts water. In more familiar terms, salt content was 2.2%.



**HUNGRY NET**--CRD Staffer Andy Allen shows would be cast netters the finer points of getting the net away from the caster and out onto the water.

Sanctuary are conducted Wednesday and Saturday mornings. The Sapelo Queen departs from Meridian Dock at 8:30 a.m. Wednesday, returning at 12:30 p.m. The Saturday tours start at 9:00 and return people to Meridian at 1:00 p.m.

Once the boat arrives at the Marsh Landing Dock on Sapelo Island, the tour boards a school bus and starts an often bumpy ride over an upland stretch of the estuarine sanctuary. The sanctuary itself is made up of 6,300 acres of marsh and 1,000 acres of upland on the southern portion of the island. This land was purchased in 1976 from the Sapelo Island Research foundation to continue protection of the marshes that have been so instrumental in our understanding of the ecology of coastal Georgia.

Research is one primary function of the sanctuary areas; education is the other. The tour program fits in with the education

scheme. Our approach in planning the tours is to give an overview of the natural features of Sapelo Island, including the upland, marsh and beach areas. We also touch on island history because it's often inseparable from the island itself. Because the estuarine sanctuary is concerned with the work an estuary does, we focus on the water currents and tidal processes in the Duplin River watershed. Observing a marsh in action may sound a lot like sitting on your lawn and watching the grass grow. But marshes are actually quite dynamic, with a few pieces of simple equipment, you can learn quite a bit about salt marsh society in a short period of time.

During a typical tour, we use a cast net to sample the marine life of the tidal creeks and beaches, and pull a plankton net to trap the particles (called detritus) of decayed marsh grass that help form the basis of a food chain that feeds shrimp, crabs, and over 60 percent of



the commercially important seafood caught in our waters. We also use a sweep net to capture various insects that graze on the marsh plants. Often, the tour includes a demonstration of a refractometer, an instrument used to measure water salinity.

After the marsh walk, tours normally proceed through part of the adjacent R. J. Reynolds State Wildlife Refuge and we discuss resource management programs underway. The next stop is an exhibit area at the Marine Institute which houses displays of the marine and land-based animal life of Sapelo. A new series of displays describing past and current research is under construction in another part of the old dairy complex; this exhibit room is described in the next section of this article.

No tour would be complete without a drive around the Big House (or South End House), the original of which Thomas Spalding built in the early 1800's. Of course, it looks a little different after large-scale improvements by the likes of Howard Coffin and R.J. Reynolds, more recent owners of the island.

Our last stop -- to some, the most enjoyable -- is the beach. Following a discussion on dune formation and ecology of the sand-sharing system, the tour participants get some free time to discover facets of beach ecology on their

own. Future plans for this part of tour include construction of a boardwalk to protect the delicate dune system from foot traffic and to give visitors a better vantage point from which to observe the young dune system.

#### **University of Georgia Marine Institute A Coachhouse Converted**

The Sapelo Island National Estuarine Sanctuary is fortunate to have within its borders the leasehold of the University of Georgia Marine Institute. This established research facility has a wealth of ecological knowledge available from which to make management decisions concerning the salt marsh and near shore areas. The Marine Institute benefits from its place within the sanctuary. Because of the environmentally protective nature of sanctuary use, there is less likelihood of environmental modification or damage to the institute's field equipment, both of which might occur if the marine institute were closer to a populated environment.

As part of the Sanctuary tour, visitors are shown the Institute, which is housed in a set of picturesque buildings of the Coffin/Reynolds era. An old coachhouse is currently being converted into a special display room, as a joint effort between the Department of Natural



**AMONG THE DUNES--**A boardwalk on Jekyll Island affords an excellent place from which to observe difficult kinds of dune plants. These youngsters learn the influence salt spray can have on the vegetation that grows near the beach.



**HARVEST TIME**--One throw of the cast net yielded a young mullet, here in the tender care of Bob Reimold, Division Director. His handling of the fish is being carefully monitored by the young lady beside him, who insisted that the catch be thrown back into the creek before he expired.

Resources and the Marine Institute. The function of this area is to provide interpretive displays explaining the features of the National Estuarine Sanctuary and describing the nature of the research conducted by Institute scientists.

The use of the coachhouse was quite deliberate. Besides being available, it has the advantage of being highly atmospheric and representative of the Sapelo buildings of the first half of this century, with exposed wooden rafters and terracotta block construction. A ceiling of waferboard has been added for hot weather comfort of visitors and the walls have been painted white to lend space and light to the exhibits. The floor remains largely unmodified as yet. In the process of removing layers of grime, we discovered a set of pawprints, apparently those of a pet bear once owned by R. J. Reynolds. This is a delightful aside to the display and probably, when the rest of the floor is cleaned up, this area will remain untouched so that everyone can enjoy

the evidence of "the bear that walked in the concrete."

The display is intended to follow a definite sequence -- in the entrance is an 8 ft. by 8 ft. topographic map of Sapelo and Blackbeard, which leads into a description of the geological history of the Georgia barrier islands which was the object of research at the University of Georgia Marine Institute until recently. They will follow a discussion of beach dynamics and the importance and the values of dunes, illustrated with natural history specimens of an appropriate nature.

The work of the Institute is to be shown as a double feature. An illustrated flow chart of the ecosystem and the interactions between its various components (e.g., *Spartina*/fungi) will show, beside the interaction, the name of the person working on that particular aspect of ecosystem research. In a second display, there will be a titled photograph of the person carrying out the research and a short description of the study.

The remainder of the display will be devoted to salt marsh and estuary descriptions and examples of typical Sapelo flora and fauna.

Support your local estuary, it's there for you.

--Barbara Kinsey, Jenny Phillips, Patty Snow  
Photos -- Jenny Phillips, Andrew J. Allen

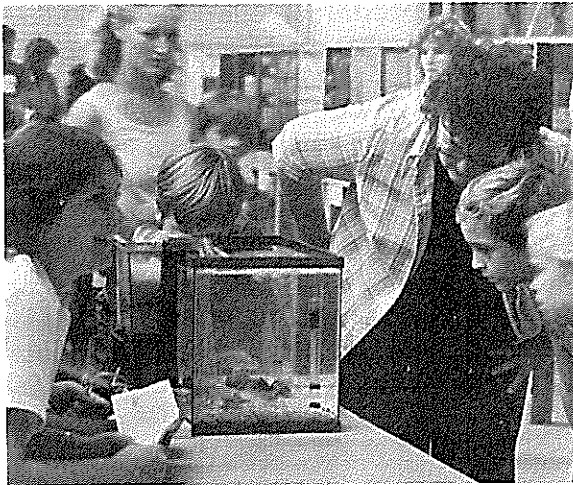


**DETRITUS, ANYONE?**--Youngsters look at a sample of creek water contained in the bottom of this plankton net. Patty Snow explains that the murky appearance of our water is often caused by small particles of decayed plant matter, called detritus.

# Public Education Key To Conservation -- Tool For Change

Public education efforts are designed to encourage wise use of our natural resources now and careful development for the future. This means educate those who will be tomorrow's law-makers and businessmen.

As part of the public education program of the Coastal Resources Division, three members of the YACC (Young Adult Conservation Corps) answered an invitation from the Crisp County Lions Club to assemble an educational display at the Crisp County Fair, October 15-20.



**"OUTSTANDING"--was one visitors comment. Was he looking at the display or YACC worker Lisa Fales?**

After a harrowing ride for both passengers and aquarium specimens alike, we arrived safely in Cordele. The CRD exhibit was scrutinized by several thousand people, and one visitor summed it up with one word: "outstanding."

DNR employees handled the booth without incident with the exception of nearly stepping on Oscar, CRD's pet turtle who went along for the ride.

The display, consisting of photographs, live petting aquariums, and information on various points of public interest in the coastal Georgia area, was centered on the theme "Public Education: Key To Conservation, Tool For Change." Judging by the number of

shrimp that disappeared mysteriously from the CRD aquariums, everyone cultivated a true appreciation for Georgia's natural resources.

The combination CRD, Environmental Protection and Parks Recreation and Historic Sites display showed that "Public Education" truly is the "Key To Conservation -- and a Tool For Change."

--Andrew J. Allen

## YACC Program Broadens

They're assisting with valuable shrimp research on Georgia's coast and sprucing up Brunswick's Overlook Park.

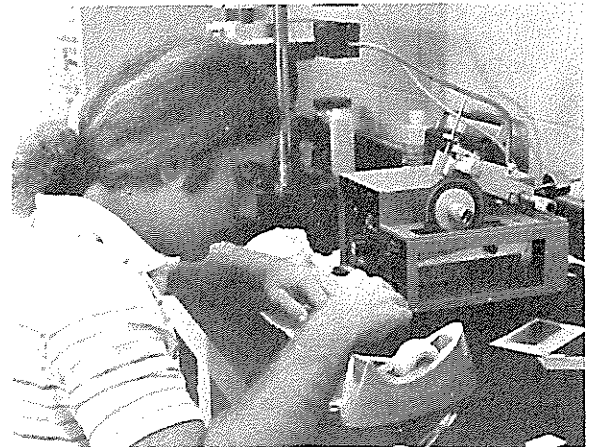
They're conducting tours and education programs for the Sapelo Island National Estuarine Sanctuary Program.

In Glynn, McIntosh, Effingham, and Camden counties, they're providing labor to build boardwalks, clear nature trails, do research for the National Register of Historic Places, do landscaping, and other conservation oriented projects.

And they're celebrating their first birthday.

In October 1978, ten YACC enrollees began work with the Coastal Resources Division on a variety of conservation related projects. Since then, the number of enrollees has increased to 25 and the projects have become more interesting and educational.

The additional work force will allow the Corps to take on a wider variety of projects. This year YACCs will be involved in clearing



**Enrollee Dwight Varnedoe assisting in a fisheries research project, using fish earbones (*otoliths*) to determine the fish's age.**



**YACC enrollees Larry Lane and Wayne Carver prepare for the opening of Wormsloe Plantation in Savannah.**

nature trails for a county park, planting stabilizing grasses to control beach erosion, and sampling specified marsh sites to determine productivity. Enrollees are presently assigned to assist fisheries biologists, research vessel captains, and other DNR personnel to gain firsthand experience in possible career activities.

Dr. R. J. Reimold, Director of the Coastal Resources Division credits the growth of our program to the Division's ability to provide unique career opportunities for people wanting jobs in conservation oriented fields. He adds that many of the jobs assigned to enrollees are similar to what other people would call a combination of education and entertainment. For example, you may go to a vocational college to learn small boat navigation in coastal waters and you may pay a seasonal guide to take you salt water fishing, for the same experience YACCs get on the job. One enrollee has learned how to navigate coastal waters and has assisted in catching, tagging, measuring and releasing a number of Georgia's sport fish. It is a useful combination of education and work experience for the coastal YACC enrollee and at the same time provides them a better understanding of the wise use and management of Georgia's coastal

resources.

While projects completed in the first year were impressive, enrollee accomplishments are more impressive. One enrollee has become a striker on a local shrimp boat; one is now Public Services Chief for the Coastal Resources Division; one has joined the Air Force; one is night manager of a local restaurant and going to college; one is Assistant Coordinator of the YACC Program; and the list goes on. These are only a few of the YACCs whose year proved worthwhile and enabled them to find a better and higher paying job.

The YACC program has definitely proved to be beneficial, and in the next year will continue to be a successful, meaningful program for the young adults of coastal Georgia.

—Ann Cullens, Gail Phillips

## S.A.F.M.C. Hearing

Georgia Fishermen who shrimp in the Gulf of Mexico's fishery conservation zone may be interested in reviewing the South Atlantic Fishery Management Council's latest management plan. The Council will conduct a public hearing on the Gulf of Mexico Shrimp Fishery Management Plan at 7 p.m., Wednesday, December 12, 1979, in the McIntosh County Courtroom in Darien, Georgia.

Permanent records will be made of all public comments on each phase of the plan. These records will be reviewed by the Gulf Council and given full consideration before the plan is finalized.

Interested persons are encouraged to attend and express their views.

Summary copies of the Gulf Shrimp Fishery Management Plan will be available for review purposes well in advance of the hearing date.

For further information contact David H. G. Gould at Coastal Resources Division, (912) 264-7218.

### Coastlines Georgia . . .

is delivered to you free of charge. If you or someone you know would like to receive this publication, please write: Steve Olsson, editor, Coastlines Georgia, 1200 Glynn Avenue, Brunswick, Georgia 31520.





The slow, dark water of the Penholloway provides a picturesque one day trip for canoers and gives its travelers time to reflect.

## Canoeing Penholloway Creek

Ahead, the creek takes a hard bend to the left, gazing into the shrouds of water tupelo, fetterbush and possum haw surrounding us, we pause, sending the canoe into a waiting cypress knee. We budge . . . the cypress does not. Although a slow and serene journey, Penholloway Creek still provides a navigational challenge as well as some beautiful scenery.

As it twists and turns through cypress, water oaks, Ogeechee limes and many a trout line, the Penholloway first joins the Old River and later splices into the Altamaha. The dark brown water, high in organic content, derives its color from substances known as tannins which give the stream its mirror-like quality.

The fishing is good, the surroundings peaceful and the location remote, though by no means inaccessible.

Rewards such as this are many to visitors and residents of the coastal area. This is the first in what we hope to be a continuing series of articles on canoeing in our region. Here's what to expect on the Penholloway:

In average water levels the creek can be run

from its crossing with Ga. Highway 341. In lower water levels (usually October and November), it may be easier to put in at the Bethlehem Church outside of Gardi.

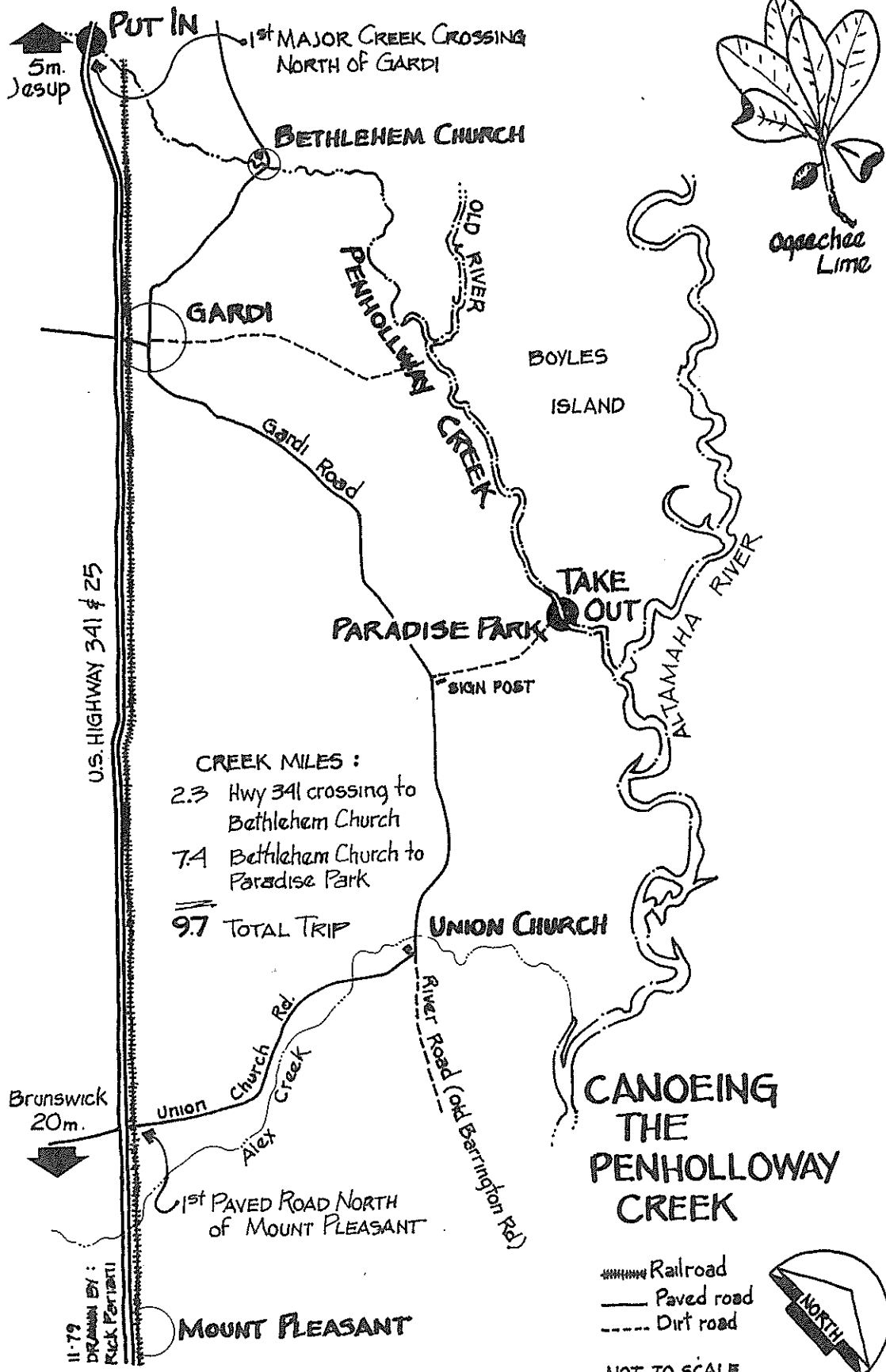
In any season or water level, be particularly careful when reaching the junction with Old River. Here is where the Penholloway is greatly enlarged by the additional flow from the Altamaha via the Old River. Do not be fooled by the slack water (backing up as the Old River swings into the Penholloway) which must be traversed before reaching the junction. The upper portion of the creek normally is a black water stream which will lend additional patterns of interest as it mixes with sediment loads from the Old River.

--Rick Pariani, Steve Olsson

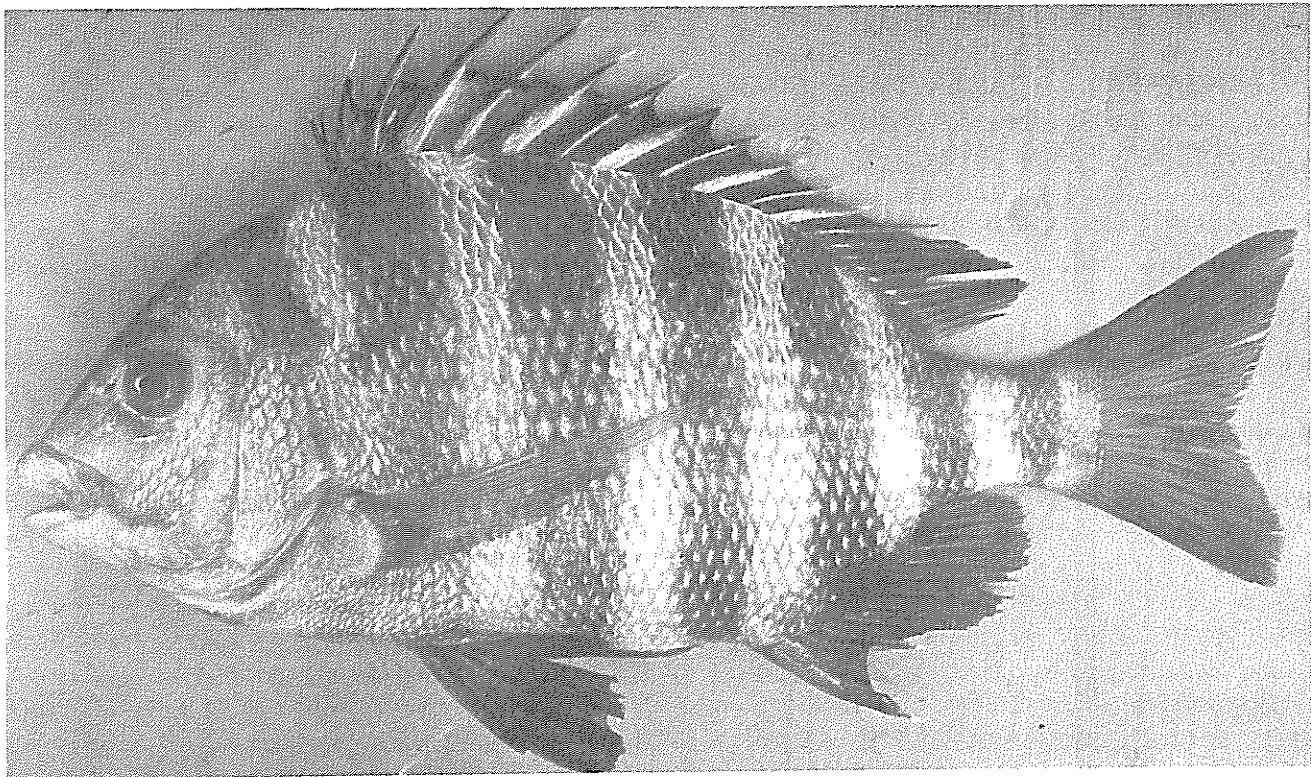


Co-author Rick Pariani is a graduate of the University of Georgia and a resource planner for the Coastal Protection staff.





Penholloway : Finn Holloway : Pinholloway : Phenholloway : Phin Holloway : Fin' holloway : Penholloway



## Fishing For Sheephead

Found from Cape Cod, Massachusetts to Tampico, Mexico, the sheephead (*Archosargus probatcephalus*) is a popular game and food fish of considerable commercial importance. An experienced bait stealer, the sheephead gets its name from the resemblance of its teeth to those of a sheep. These strong teeth are used to pick, gnaw and scrape oysters, barnacles, crabs, and clams off underwater pilings and rocks. Concentrations of sheephead thus can be found in areas where shellfish are plentiful. Because of the skill required to catch sheephead, some sport fishermen specialize in angling for them.

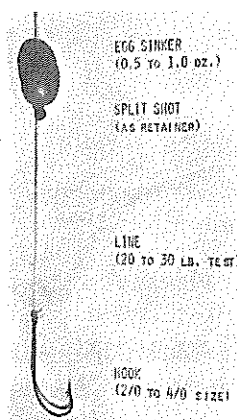
The most common bait for sheephead on the Georgia Coast is the china-back or purple fiddler crab. Fiddler crabs can be collected by hand on any high sand flat located within the coastal salt marshes during low tide levels. Only time, experience and a little luck will give the average fishermen the skill he needs to land the elusive sheephead. The novice may find it helpful to fish near pilings or rocks with his line hanging vertically and his bait just off the bottom. A typical method of rigging for sheephead fishing is depicted in the following illustrations.

--Jim Music, John Pafford

### STEPS:

1. Thread line through egg sinker.
2. Tie on a 2/0 to 4/0 size number hook.
3. Clamp the split shot to the line between the hook and sinker 4 to 12 inches above the hook.

The recommended methods to bait a hook with a fiddler crab are to insert (A) the hook through the mouth or (B) through the side between the walking legs of the crab, taking care to leave the barbs of the hook inside the crab.



## Fish Tagging Review

The current inshore fish tagging study (designed specifically to determine migration and movement patterns) has been underway less than ten months and CRD biologists now have approximately 3,000 sportfish tagged in the St. Simons and St. Andrews sound systems.

To date, several fisherpersons have caught more than one tagged fish: Mrs. Ann Purvis, Mrs. Ann Burgess and Mr. Henry Cate. Approximately 75 tagged fish have been recaptured out of the 3,000 fish released and tag returns are coming in daily. The following people recently caught fish with \$5.00 rewards: John Zwynenvurg, Tracy Youmans, Terry Nichols and Winston Wildons.

Tag returns have come from as far northward as Savannah and as far southward as Matanzas Inlet and Ormond Beach, Florida. To date, most movement of recaptured fish has been random, ranging less than five miles.

If fishermen know where fish are abundant and want CRD biologist to tag in a particular area they should call or write the CRD office. Biologists are especially interested in tagging black drum as this species has shown the greatest movement so far. Anglers are urged to send in tags promptly and should receive their rewards within two weeks.

--Jim Music

## Draft Program Approved

The Coastal Management Board approved the Draft Georgia Coastal Management Program document on November 14, 1979, and instructed the staff to print the document, distribute it to the public, and hold public hearings. The draft culminates five years of program planning in Georgia. The Board directed the staff to develop standards and criteria for the implementation of the program and to draft a review process designed to ensure that the goals are being met.

The Coastal Management Board will hold its next meeting on December 5, 1979 to review the comments and make changes as necessary to the document.

## ERF In The Surf

Mix liberally: 500 estuarine scientists and graduate students, a Jekyll beachfront, locale, scholarly presentations, vats of coffee, afternoon field trips, and what have you got? An ERF. Or, more precisely, a five-day conference for members of the Estuarine Research Federation.

Every two years, the scientific communities of NEERS (Northeastern Estuarine Research Society), SEERS, (Southeastern Estuarine Research Society), GERS (Gulf Estuarine Reserach Society), and PERS (Pacific Estuarine Research Society), converge as the full membership of ERF. This year's biennial session used Jekyll's Buccaneer Motel as its headquarters, spilling over into the adjacent Holiday Inn.

Each day's agenda offered a variety of sessions for attendees. Topics ranged from wetland value and management to barrier island research. Evenings brought informal poster sessions -- sort of adult science fairs -- with refreshments and spontaneous meetings among colleagues. Many participants enjoyed field trips to the Okefenokee Swamp and Sapelo Island, and also used a free afternoon to trek forth on their own.

Planning and local arrangements for the large scale conference were the responsibility of Dr. Robert J. Reimold, Director of CRD, who was aided by CRD staff and CRD YACCs. Their's was the unenviable task of ensuring there would be enough slide projectors, and folding chairs, timely coffee breaks, and a tram to shuttle scholarly bodies between Jekyll motels.

At week's end, both CRD staff and Buccaneer employees were reeling from fatigue, but undaunted ERF members were already scheming ways to attend the 1981 conference in Oregon.

### ERF Note

*During the 1979 Convention Proceedings, Dr Robert J. Reimold was elected President of the Estuarine Research Federation. A charter member and former vice president of the organizaiton, Reimold has been active in ERF since its beginning in 1971.*

## Et Cetera . . .



DNR personnel Vic Vansant, (left), a wildlife technician on the island managing the hunt, Regional Wildlife Supervisor C. V. Waters, (center), and Mechanic Jack Hoyt show two of the 22 deer shot by bow and arrow on the Sapelo hunt. The three will also be supervising a parent-child firearm hunt Dec. 17-19.

## Successful Sapelo Hunt

The Department of Natural Resources managed the first bow hunt on Sapelo Island October 17-20. Hunters from Georgia and surrounding states combed a 2700 acre tract in search of an estimated 1,200 to 1,400 deer. Before the hunt, wildlife technician Vic Vansant collected data to determine the health, age and general condition of the island's deer population. A good hunt would hopefully thin the enlarging numbers of deer.

The bow hunters success ratio was about 25% with a total of 22 deer being taken over the three day span. The average number of points on a deer was seven with the largest rack being 14 points on a 95 pound deer. The deer weighed between 60 and 131 pounds. According to Vansant the deer have plenty to eat this season due to a good acorn crop.

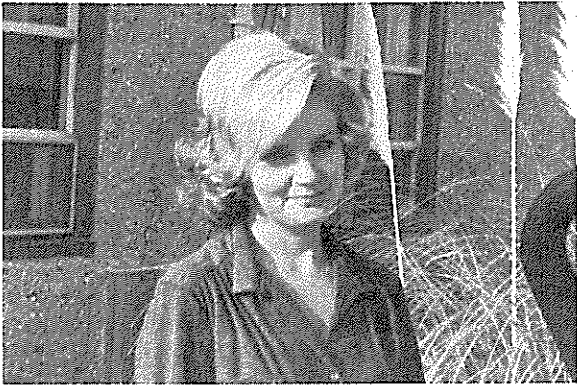
(Text and Photo courtesy of Kathleen Williamson, The Darien News.)



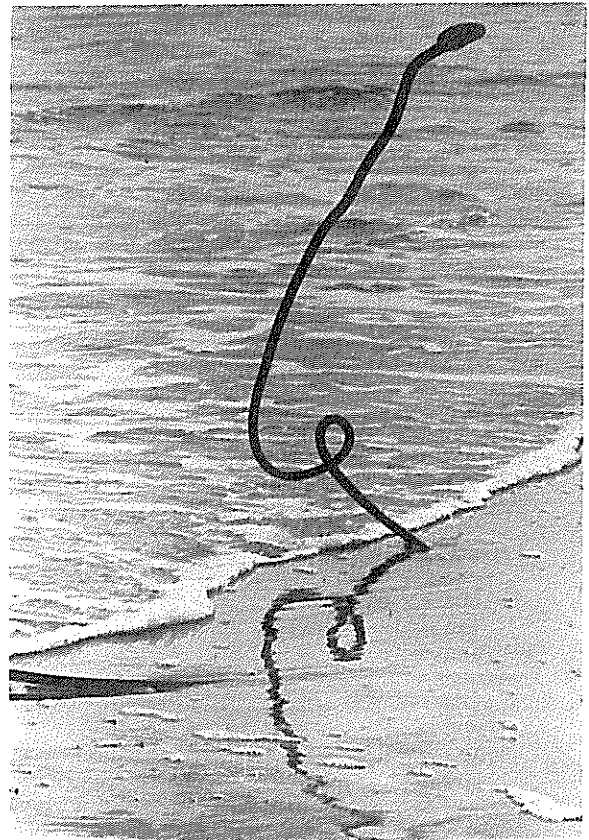
Brunswick angler Henry Cate displays one of several fish he has returned for rewards ranging from one to ten dollars. This one, a summer trout, was caught in Dubignon Creek.



New biologist Chuck Cowman's primary duties will center around CRD's Shellfish Sanitation Program. Chuck is a graduate of the University of Washington with a degree in fisheries biology.



New administrative assistant Linda Connally returns to CRD after a short time with the Georgia Department of Labor. Director Bob Reimold keeps her busy with a steady flow of new assignments.



A WHAT?--Estuarine Sanctuary Coordinator Jenny Phillips' as yet untitled photo won first place at October's Estuarine Research Federation Conference. Speculation rests with the beholder as to identity of the mysterious item photographed on Sea Island beach.

## DNR Board Visits Coast



Enroute to Ossabaw Island, Board members enjoy coastal cooking aboard the R/V ANNA. The board toured Ossabaw on Thursday, October 25 and met in Savannah on Friday the 26th. Shown are (left to right) Alton Draughon, Mrs. Wade Coleman, Linda Billingsley, and Wade Coleman.



CRD Director Bob Reimold points out a few highlights to (left to right) Board Chairman Wimbric Walker, members Linda Billingsley, Lloyd Summer, Leo Lanman, DNR staff member Jay Sargent, and board member Mary Iazard. The Board became familiar with the unique assets as well as special problems experienced by the coast while visiting here.





**Sunrise on Buttermilk Sound.**

**--Photo by Virginia Baisden**

**Coastal Resources Division  
Department of Natural Resources  
1200 Glynn Avenue  
Brunswick, GA 31520**

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