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

Blessing Winners



The Morning Star took top honors during the Brunswick Fiesta. The 72-foot vessel is owned by R. E. Knight and captained by St. Simons resident Lindsey Parker.



Winner of the Darien Blessing of the Fleet was the Cabaret, owned and piloted by John Sawyer.

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Cover: Altamaha Sound Oysters - Paul S. Galtsoff

Commentary -- Sam Cofer

Challenging Issues For The Future

As the Chairman of the Board of Natural Resources, it is my responsibility to oversee the management of the resources of the State of Georgia. Although I have lived on the coast all my life, I strive very hard to insure that equal attention is given to natural resource concerns for the entire state - from the mountains to the coast. Naturally I'm most familiar with coastal resources, but I have also had a good deal of experience with deer and turkey hunting, camping in our beautiful state parks, and helping establish rules and regulations for clean air and water throughout the entire state.

In thinking about the future of the coast of Georgia, there are several issues that I think we all will have to face in the coming years. We have been doing a good job developing new information and helping legislators with new laws related to better management of our shrimp and fish resources. We are, however,

extremely limited by only being able to manage our shrimp and fisheries resources offshore to the three mile limit. It seemed to me that it should not be difficult to extend our jurisdiction from three miles to twelve. However, after spending many days talking to many people from Georgia to Washington, D.C., I learned that this will be quite difficult, but I still believe it is important. At the present time I am seeking assistance from Congressman Bo Ginn in having the Secretary of the U.S. Department of Commerce establish the 12-mile limit for Georgia, solely for better management of our shrimp resources. I understand there is a possibility the federal government could contract with the State for such policy and administrative needs as would be required to manage the shrimp. I feel Georgia has proven to be responsible and effective in managing the renewable natural



Natural Resources Board Chairman Sam Cofer (R) with U.S. Senator Sam Nunn and family aboard the R/V Anna.

resources, including shrimp, in Georgia's waters seaward to the three mile limit. It is certainly not our intent to usurp any power of the federal government in this matter. We wish simply to protect and wisely manage Georgia's shrimp resources in the 3 to 12 mile zone where many of our Georgia shrimp spend a portion of their life cycle.

Another concern we must face in the next few years is consideration of a salt-water license fee for sportfishing. Some states have already done this. We have been told by many fishermen that they want the state to require a modest saltwater license fee so that everyone will know how many saltwater anglers there are. We all must recognize that such a concept could be very controversial. It will have to be considered in many public forums and will ultimately require consideration by the Georgia General Assembly. We have already reinstated the salt-water state records program and have had a great deal of interest from people competing for the new records in various species categories. Now we must begin the process of hearing from all the various interest groups before we make a final recommendation on what should be done. In any event, it is high time we start seriously facing this problem, too.

As I have told many people, I feel my first and most important responsibility is to protect and conserve out resources. Toward that end, I am interested in hearing from everyone with a legitimate concern, whether they be sportfishermen, commercial fishermen, or just Georgians who like to come to the coast and enjoy our recreational assets. My first obligation then, is to the taxpayers of the state; not to satisfy each one, because I know that is not possible, but to try to serve the needs of the majority while at the same time considering the life cycle of the fish and shrimp which we are managing. It is not an easy job, and there are very few "thank yous" involved. Even without the "thank yous", I still believe it is worth it. At the risk of being called corny, I must say that this state and this coast have been good to me over the years. Now I feel it is my turn to do my part for the benefit of our future generations. I challenge each one of you who are readers of Coastlines Georgia to do your part in helping me and the members of the Board of Natural Resources to deal with these tough issues that face us in the future. We must bite the bullet and start to work with these rather controversial matters if we are to continue to be a leader among coastal states in our conservation of our natural resources.

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Reimold Elected To SEERS Post

Dr. Robert J. Reimold, director of the Coastal Resources Division, was elected president of the Southeastern Estuarine Research Society (SEERS) at the semiannual meeting of SEERS in Wrightsville Beach, N.C.

The 300-member organization of scientists and resource managers is an affiliate of the Estuarine Research Federation (ERF) of which Reimold is also serving as president. ERF and its affiliates serve as a forum to exchange ideas, techniques and advancements in related fields of estuarine research. Approximately 10% of its 1,700 members are from foreign countries, giving the organization a broad base for information exchange.

The next meeting of SEERS will be held on Jekyll Island, GA in October, 1980.

EPD Advisory Committee

The Statewide Environmental Advisory Committee on Public Participation to the Environmental Protection Division (EPD), Department of Natural Resources, will meet June 26, 1980 at 10:00 a.m. in Room 605, 270 Washington St., Atlanta, GA.

At this meeting initial planning will begin for the Governor's Conference on Environmental Resource Management which will be held in the Fall of 1980. This conference will provide an exchainge of ideas on priority environmental issues between citizens, public officials, economic groups and special interest groups. Other committee business will be discussed such as sub-committee reports.

For further information contact Liz Carmichael Jones at (404) 656-4713 or write to EPD, Room 823-A, 270 Washington St., S.W., Atlanta, GA 30334. All Environmental Advisory Committee Meetings are open to the public.

A Beachcombing Guide To Georgia's Coast

Scratch the surface of most any coastal resident or visitor and you'll probably find a beachcomber. We all succumb to the fascination of poking through debris deposited along our beaches, from the waterline up to the wrackline.

Because of the gentle slope of Georgia's continental shelf, and the frequency of sandbars just offshore, most of our beaches do not collect the amounts of shells and other animal remains that characterize the shoreline in some other coastal states. Yet Georgia's beaches offer enough variety and quantity to satisfy all but the most demanding collector.

Here are some of the marine animals that wash ashore most frequently, as well as several plants and animals that live on the beach itself. If you are a seasoned beachwalker, you'll probably recognize most of these organisms, but may not know exactly what they are. If you're new at this pastime, we hope this guide provides a useful introduction to the realm of sand and sea.

ANIMALS

The following "beach creatures" have been grouped according to their most basic characteristics. These groups are technically referred to as phyla, the most general scientific classification.

SPONGES: Phylum Porifera

Most of us are familiar with the natural bath sponge, harvested commercially, and the synthetic one that replaces it. However, few



beachcombers are aware that many wild, bizarre-shaped clumps seen on the beach are actually sponges.

Sponges are very simple animals, although many people mistake them for plants. Lacking a mouth, internal organs, and a nervous system, the sponge functions by means of specialized cells. These cells remove oxygen and food particles from water passing through pores in the sponge's body. As the water leaves the body, it removes the sponge's waste products.

JELLYFISH, CORALS: Phylum Coelenterata

Coelenterates differ from sponges in having a true mouth and digestive cavity. The mouth is centrally located and is ringed by tentacles. All organisms in this phylum have stinging organs located in specialized cells.



Jellyfish contain long, coiled threads of toxic protein that uncoil rapidly to stab the animal's prey. The unhappy victim is immobilized by this sting. While jellyfish toxin is not powerful enough to paralyze a human being, anyone who has suffered the wrath of a jellyfish scorned would probably choose a lesser punishment instead.

The sea pansy is a coral colony forming a shape like a small lily pad. The colony's thick, leathery surface is pink; the individual animals are the white dots you see on the "pansy."



These flower-like creatures are also bioluminescent and many appear to glow in the dark at night. Sea pansies live in the sandy shallows along the water's edge and are often found on the beach.

You could probably easily mistake a sea whip for a piece of colored wire. These coral colonies form whip-like stems with slender branches. Their coloration varies, but the most common hues found on Georgia's beaches are purple, yellow-orange and white.



SEGMENTED WORMS: Phylum Annelida

The bodies of all annelids are divided into segments. Polychaetes (poly kētes), or **bristle worms**, are the largest group of annelids and almost all are marine. Some polychaetes burrow, others crawl and swim, while still others build tubes.

Worms are as prevalent in marine settings as they are in your garden. Walk along the mud flats at low tide and you will see a forest of tiny transparent tubes poking above the surface. These tubes are actually the casings for **bamboo worms**. When a shrimper says in disgust that his nets are full of "shredded newspaper," he means his catch included large



The beachcombers place of business. A cross section of the beach and dune area where these specimens can be found.

mats of these long worm tubes.



The **plumed worm** is a tube builder who adorns its parchment casing with small shells, seaweed and other debris. At first glance, this decorated tube looks somewhat like a narrow pinecone. You'll seldom find the worm still inside the tube on the beach, but if you spot one, you can identify it by the ruff of plumelike gills near the worm's head.



CLAMS, SNAILS: Phylum Mollusca

Molluscs are perhaps the most familiar beach finds, especially in the wake of a storm. They are available in many body forms but almost all have some type of eternal shell. These shells come in all shapes and sizes: coiled, bivalved (two-piece), tubular, or formed of overlapping plates. Most molluscs come equipped with a muscular foot, a mouth complete with rasplike tongue that scrapes food, and fleshy lobes that contain shellsecreting glands.

Knobbed whelks are often cast up on Georgia beaches. As you might expect, the shell is covered with knobs. The side opening of this spiraled creature reveals a smooth orange interior. Whelks feed mainly on other molluscs and are considered a delicacy in the West Indies and Europe.



If you look carefully along the wrackline, you may happen upon a **lettered olive** shell. This cylindrical mollusc usually has a light colored, very glossy shell with dinstinctive markings that look like frenzied Arab lettering. The olive, a rare find on most Georgia beaches, can grow to $2\frac{1}{2}$ inches in length.



Much more common is the **moon snail**, also called a shark eye. The spiraled shell is usually tan or gray and has a soft sheen. Abandoned moon snail shells are often claimed by wandering hermit crabs in search of a new home.



Bivalves are one of the most abundant molluscs found in the beach environment. Some bivalves, such as the oyster, anchor themselves to shell or rock by secreting a calcium-like material. Others burrow into the mud or sand; clams exhibit this behavior. Still other molluscs attach to large marine animals.

Here are several bivalve molluscs you may encounter on your beach forays.

The ponderous ark is equipped with a thick, heavy shell reaching $2\frac{1}{2}$ inches in length. The white shell has flat, radial ribbing.



The razor clam (or jack knife clam) has a thin, delicate shell approximately four times longer than it is wide. This clam grows to a length of two inches. Home to the razor clam is the lower intertidal and subtidal shore, where its muscular foot burrows deep in the sandy mud.



The angel wing is aptly named, not only because of its radiating ribbed shape, but also because of its pure white color. The shell is extremely brittle, so you'll have to search to find one that is not broken. This bivalve is large -- up to 7 inches long. It lives in the subtidal zone.



The tiniest of our common bivalves are coquina, miniature versions of their clam relatives. Their name comes from the Spanish word "little shell." Sometimes brightly colored, sometimes plain white, these small burrowing clams live in the high energy surf zone of the beach. It is here you will find their abandoned shells by the millions, crunching beneath your feet as you stroll on the wet sand. Georgia's shore has a healthy coquina population, but to really appreciate this mollusc you need to visit Florida's Atlantic Coast, where the tiny shells lie in heaps. Coquina from prehistoric times, deposited somewhat inland, became cemented and was quarried during Florida's Spanish colonial period. A good example of coquina construction is the Castillo de Marcos in St. Augustine.



The quahog, or hard-shelled clam of chowder fame, is usually associated with New England, but it inhabits the Georgia coast as well. The dull white shell has a purple stain inside. The quahog burrows in the muddy sand of ocean beaches or bays.



The great heart cockle is a resident of southern beaches. This shell, with its pronounced ribbing, looks somewhat like corduroy. When viewed from the side, the two hinged valves of this cockle form a heart shape, giving the organism its name.



HORSESHOE CRAB, HERMIT CRAB, LADY CRAB, MUD SHRIMP:

Phylum Arthropoda

The phylum Arthropoda is the largest in the animal world and includes an enormous variety of crustaceans, insects and spiders. All arthropods have a hard shell and jointed legs.

Most marine arthropods are crustaceans, but the **horseshoe crab** is an exception. Despite its name, this tank-like creature is more closely related to spiders than to crabs. A very primitive animal, the horseshoe traces back its



ancestry more than 350 million years. This "crab" scuttles through the shallow intertidal waters with amazing speed, twitching its long tail spike. Although its appearance is somewhat awesome, the horseshoe is harmless to man. At one time, this organism was harvested for fertilizer, but now its body fluid is extracted and used in the pharmaceutical industry for testing human blood for bacteria.

Short-browed mud shrimp or ghost shrimp are much less familiar to tidal flat enthusiasts than are their burrows, which are often surrounded by shrimp feces resembling chocolate shot. Mud shrimp burrows dot the flat landscape, you have to dig quickly to find the occupants. This mud shrimp looks somewhat like a miniature lobster, due to the large pincers on its front pair of legs.



Long-clawed hermit crabs are most often spotted inside the abandoned shells of periwinkle snails, mud snails, or oyster drills. They are a small member of the hermit crab family.



The lady crab shares with its fellow swimming crabs characteristic paddle-shaped legs. Its shell is pale grey with purple splotches. If you should meet this subtidal crustacean on the beach, handle it with care -- it is not at all impressed with your size advantage and will take you on at hand-to-claw combat.



SAND DOLLARS, SEA CUCUMBERS: Phylum Echinodermata

All echinoderms are marine animals, characterized by an external skeleton of calcium-like plates often covered with spines and a body form based on a five part pattern.

If you find a **five-hole sand dollar** fresh from the sea, you many not recognize it, for it has a mosslike covering of green spines. As the sand dollar dries on the beach, this outer layer disappears and the plated skeleton bleaches to its familiar white color. This flat disc-shaped skeleton has five keyhole slots near the outer edge of the shell.





Although sea cucumbers may look like a sponge or sea anemone they do have the skeletal plates characteristic of every echinoderm. These plates have simply degenerated and embedded themselves in the cucumber's fleshy body. This animal's tubed feet are a common characteristic of echinoderms.



PLANTS

The elements of salt spray, constant wind, intense light, and high temperatures combine to make the dunes a harsh place for plants to grow. Unlike their animal neighbors, plants cannot burrow to escape climatic extremes. The soil itself is a problem: sand is not noted for its ability to hold moisture. You won't see a large variety of vegetation along the beach, but those plants you do encounter are indicative of site conditions. Grasses and vines dominate the foredunes, just back of the wrackline. Dunes further from the waterline are older and have, over time, become more stable because of the network of plant roots holding the sand in place. On these dunes you'll find additional herbs and a few woody plants.

Here are a few species common to Georgia's dunes and interdunes.

Sea Oats (Uniola paniculata) may be the best-known dune stabilizer. Protected by law from the ravages of dried plant collectors, this grass can reproduce either by sprouting seeds or by sending out underground runners, called rhizomes. Sea oats are not alone in this regard. Many beach grasses reproduce by sending out such new stems, with nodes that root and form new plants. These grasses depend on soil undisturbed by foot or vehicle traffic to allow their rhizomes a chance to spread and take hold. If these rhizomes and roots are destroyed, so is the dune, for a healthy network of stems and roots is the key to stablilizing sand.

Sea oats are valuable stablizers of sandy soil for another reason: They can withstand burying by sand drifts, sending up new shoots from the submerged plants.



Salt meadow cordgrass (Spartina patens), a relative of the widespread marsh plant, smooth cordgrass, grows in wispy bunches in the dunes. Its habitat is not confined to beaches, but includes brackish and salt marshes along the coast from Maine to Texas. If you look at a salt meadow cordgrass leaf, you'll notice that it is not flat, but the edges curl up into a U-shape.



Another dune plant with kin in the salt marsh is **beach elder** (*Iva imbricata*). This shrub looks similar to its cousin marsh elder, having a woody stem and fleshy leaves, arranged opposite each other on the stem. Salt spray, wind and winter frost cause beach elder to grow in a low, domed shape.



Sea-beach panic grass (*Panicum amarum*), also called "bitter panic" or "beachgrass," is a dominant feature among the foredune community. This grass begins growth in spring, it forms flowers in summer, and its millet-like grain matures in early fall.



If you're one who frequents the coastal regions, **beach pennywort** (*Hydrocotyle bonariensis*) is no doubt a familiar sight. This plant, whose scalloped, round leaves poke above the sand in profusion, is related to many other species of Hydrocotyle commonly found in coastal areas. Some species crop up in lawns and flower beds, much to the frustration of conscientious gardeners.





Spanish bayonet (*Yucca sp.*) can be grown just about anyplace where the climate is mild and the soil sandy. Two species grow in beach environments: one is common on the dunes themselves, the other inhabits the interdune recesses. This shaggy, upright plant has sharply pointed leaves and is characterized in spring or early summer by a crown of delicate white blossoms.

> --Jenny Phillips, Susan Shipman Photos: Jenny Phillips, Steve Olsson

For Further Information:

Voss, G. L., 1976. Seashore life of Florida and the Caribbean. E. A. Seemann Publishing Inc., Miami. 168 pp. * * * *

Gosner, K. L., 1976. A field guide to the Atlantic seashore from the Bay of Fundy to Cape Hatteras. Houghton Mifflin Company, Boston. 329 pp. * * * *

Rudloe, J., 1971. The erotic ocean: a handbook for beachcombers. World Publishing Company, New York. 448 pp.

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Information Directory Available

Copies of the Directory of Information Sources from the Sea Island Characterization Project are presently available to the public from the U.S. Fish and Wildlife Service. The directory identifies sources of physical, socioeconomic and ecological information concerning the sea islands and coastal region of South Carolina and Georgia. Data sources for a variety of coastal subjects such as aerial photography and mapping, endangered and threatened species, sport fishing, shellfish, transportation and solar energy are covered in the directory. It is available from Information Transfer Specialist, National Coastal Ecosystems Team, U.S. Fish and Wildlife Service, NASA-Slidell Computer Complex, 1010 Gause Blvd., Slidell, LA 70458.



Red Drum

Found from Massachusetts to Texas, the red drum (Sciaenops ocellata) is an important East and Gulf Coast gamefish. The red drum, known along the Georgia coast as channel bass, spot-tail bass, and red fish, are really members of the croaker family.

Red drum are bottom feeders, eating mostly crustaceans, molluscs and small fish (notably mullet). Popular live baits include shrimp, crabs, clams, sandbugs, squid and cut bait such as spot and mullet. The large specimens, 40 pounds or more, are usually caught in the Atlantic portion of their range from the Georgia coast to New Jersey.

Although the color of the red drum may vary, it can be distinguished from the black drum, which it resembles, by its lack of chin barbels and the presence of at least one large black spot on it's tail (see **Coastlines**, March-April, 1980, **Fishing for Black Drum**).

Many Georgia anglers consider the spotted sea trout to be the number one coastal sportfish because of its year round abundance and distribution. However, very few anglers even begin to compare the sporting qualities of spotted trout with those of the red drum. The current state record red drum in Georgia is a 45-pound specimen caught at Egg Island in July 1969. The world record came from Rodanthe, N. C. in 1973 and weighed 90 pounds.

Small red drum from one to five pounds are excellent table fare and preferred by many residents over all other fish. However, once red drum top the fifteen pound mark, their flesh becomes strong-flavored and the meat is coarsely textured. School drum, (those that run less than five pounds) show up in numbers sometime around the 4th of July and remain in our coastal waters throughout the fall until around Christmas. By January, their numbers become very low. However, a few stragglers are still caught by winter trout fishermen on artificials while trolling or plugging for trout.

Much of the life history for red drum in Georgia is lacking. Very few instances of gravid (roe bearing) female drum have been observed along the Georgia coast. Spawning undoubtedly occurs offshore from our beaches during the winter months, but to date, there is little evidence as to where spawning is concentrated.

Although Georgia does not presently have creel limits on red drum, fishermen should exercise discretion when catching the large specimens. Since these large fish are not considered to be top live fish for eating, the catch/release practice should be exercised with most of these fish. It is both a waste and an injustice to catch a dozen or more large specimens and then go around looking for someone to give them to. As Georgia's red drum population has (according to many local sport fishermen) reached a longtime low in abundance, fishermen should take the initiative and make every effort to insure that these large specimens have a chance to replenish low population stocks. One thing fishermen could do is to take a camera along while fishing. This way the fisherman can take a picture of the fish and release it if he doesn't plan to eat it. Nothing beats a picture as a trophy or as a conversation piece.

For those fishermen that catch only few fish and wish to save them for both bragging and eating purposes, there are several ways one can prepare them. If you are a fried fish fan, cut them into one-inch fish sticks or fillets and batter or meal them with lots of salt and pepper before deep frying. Another easy to prepare dish is fish chowder. Recipes can be found in most any seafood cookbook. Probably one of the best ways to prepare red drum is to boil and debone the meat and make fish patties in the same manner as you would make salmon croquets. These are fried and result in darn good eating.

Since there are two basic size classes of fish specifically sought after by fishermen, we have listed the two different methods most often used to catch them.

The first method is for the small "school bass" and employs the same basic tactics and



A standard deep floating terminal rig.

gear used to catch spotted sea trout. This is done with a standard depth-floating terminal rig and conventional bait-casting rod and reel. The bait used is either live or dead shrimp either hooked through the head (live shrimp) or threaded lengthwise from the tail (dead shrimp) to the head. The primary areas fished are around major shell beds, pilings, rock jetties or in the surf where good wave action is dominant.

Fishing for large drum is strictly a bottom fishing proposition. Surf fishing from the bank requires a long surf rod for long distance casting. When fishing from a boat, however, most any casting type equipment is good. Most anglers use 30 pound test monofilament line and terminal rigs consisting of 4 oz. pyramid or egg sinkers rigged as a fish-finder rigs with 7/0 to 9/0 hooks. The most popular bait is fresh cut-mullet. Areas where large breakers occur such as Pelican Spit near Hampton River, the breakers off Altamaha, and Racoon Key at Ossabaw Sound offer ideal fishing. Many fishermen also utilize deep channels in the Altamaha near Wolfe Island for bottom fishing at night for excellent results.

The University of Georgia's Marine Extension Service in Brunswick has made some excellent fishing charts showing some of the better fishing drops along the coast. They are free at their offices on Bay Street in Brunswick, or \$0.50 by mail to: Box Z, Brunswick, Georgia 31523. The summer fishing season is at hand, so take advantage and get away fishing--you'll feel good about it.





--Jim Music, John Pafford

Boat Ramps, Fish Camps And Marinas

Below is a listing of boat ramps, fish camps, and marinas along Georgia's coast. A handy reference for access to coastal waterways, the listing does not claim to be exhaustive. Several sources however, have been referenced. Any additional listings should be sent to **Coastlines Georgia**, 1200 Glynn Ave., Brunswick, GA 31523.

BRYAN COUNTY Public Boat Ramps

Demeries Creek – Southeast of Hwy. 17 on Ga. 144 at DNR Game and Fish Regional Office on Demeries Creek.

Richmond Hill State Park -- Southeast of Hwy. 17 on Ga. 144 Spur. At fork, go left to end of spur. One is on Ogeechee River. Another is on Red Bird Creek.

Morgan Bridge -- On Ga. Hwy. 204 at Ogeechee River on Chatham/Bryan County Line.

Canoochee Park -- On Ga. Hwy. 30 at Canoochee River at Evans/Bryan County Line.

Fish Camps and Marinas

Kilkenny Fish Camp -- Take Ga. 144 southeast from U.S. Hwy. 17, turn left on Kilkenny Rd. Go to dead end. Kilkenny Creek.

Ogeechee Fishing Camp -- Take Ga. 144 southeast from U.S. Hwy. 17; turn left at Rabbit Hill. Ogeechee River.

Dashers Fishing Lodge -- On U.S. Highway 80 on Ogeechee River at Bryan/Effingham County Line.

Ogeechee Sportsman Center -- On U.S. Hwy. 17 on Ogeechee River at Bryan/Chatham County Line.

CAMDEN COUNTY Public Boat Ramps

Crooked River State Park -- East of Interstate 95, turn north on Ga. 40 Spur off Ga. 40. At dead end on Crooked River.

Little Satilla River -- On U.S. Hwy. 17 at the Little Satilla River Bridge.

Kingsland -- On U.S. Hwy. 17 at St. Marys River. Georgia/Florida line.

Harrietts Bluff -- East of Interstate 95 off Harrietts Bluff Road on Crooked River.

St. Marys -- Take Ga. 40 to dead end in St.

Marys. Turn right, ramp on left on St. Marys River.

Satilla River -- Off U.S. Hwy. 17 in Woodbine on Satilla River.

White Oak -- On U.S. Hwy. 17 at White Oak Creek.

Burnt Fort (Charlton County) -- On Ga. 252 at Camden/Charlton County line. Satilla River.

Fish Camps and Marinas

Hickory Bluff Fish Camp -- East of Interstate 95 off Dover Bluff Road at Hickory Bluff on Little Satilla River.

Ocean Breeze Camp Ground -- Same as above.

Ray Pounds -- East of Interstate 95 off Harrietts Bluff Road. Crooked River.

Hubert Barber-Gordon Fulford -- Same as above.

Lang -- End of Ga. 40 in St. Marys, St. Marys River.

Jack's Marina -- East of Interstate 95, turn north on Ga. 40 spur off Ga. 40. Go to dead end. Crooked River.

John's Fishing Camp -- Southwest of Kingsland on Ga. 40 thru Greenville to St. Marys River.

3 R Fishing Camp -- At the Camden/Charlton county line. Satilla River.

CHATHAM COUNTY Public Boat Ramps

Bells Landing -- Apache Street off Abercorn on Hoover Creek.

Port Wentworth -- U.S. Hwy. 17N (Old Bridge) on Front River.

Coffee Bluff – Coffee Bluff Road at Forest River.

Island Expressway -- East of bridge on Wilmington River.

King's Ferry Park -- U.S. Hwy. 17 South. Ogeechee River.

Montgomery -- End of Whitfield Ave. South Vernon River.

Lazaretto Creek -- U.S. Hwy. 80 to Tybee Island at Lazaretto Creek.

Tybee -- On Tybee Island, 16th Street. Back River.

Silk Hope -- Old U.S. Hwy. 17 South. Salt Creek.

Thunderbolt -- U.S. Hwy. 80 on Armstrong Island (Savannah Marina). Wilmington River. Skidaway Narrows -- Diamond Causeway

at the Narrows. Skidaway River. Lake Mayer -- Off Montgomery Avenue

before Skidaway Road.

Savannah National Wildlife Refuge -- Off U.S. Hwy. 17. North on Back River.

Fish Camps and Marinas

Tidewater Boat Works, Inc. -- North of U.S. Hwy. 80 in Thunderbolt. Wilmington River.

Thunderbolt Marina -- Same as above except turn south.

Love's Fishing Camp -- On U.S. Hwy. 17 south at Ogeechee River.

Turner Creek Marina -- Off Ga. 367 at Turner Creek.

Young Boat Rental -- Same as above.

Isle of Hope Marina -- Off Skidaway Road at Isle of Hope on Isle of Hope River.

Lazaretto Boat Club -- Off Wilmington Island Road on Wilmington River.

Coffee Bluff Fishing Camp -- Coffee Bluff Road at Forest River.

Bellaire Woods Campgrounds – Northwest off Ga. 204, just past Savannah and Ogeechee Canal on left. Ogeechee River.

Chimney Creek Fishing Camp -- Tybee Island. South of U.S. Hwy. 80 on Chimney Creek.

Tybee Fish Camp and Marina -- Southwest side of Tybee Island on Horse Pen Creek.

Tuten's Fishing Camp and Marina -- Off Skidaway Road at Herb River.

Sapp's Fish Camp and Marina – Off Shipyard Road on Shipyard Creek.

Harrison's Fishing Camp -- Same as above. Bona Bella Marina -- Livingston Ave. at Williamson Creek.

Benny Horton's Pier 13 -- Off U.S. Hwy. 80 on Armstrong Island. Wilmington River.

Savannah Marina -- Same as above.

Riverside Marina -- South of U.S. Hwy. 17 in Thunderbolt on Wilmington River.

Savannah Yacht Club -- Off Bradley Point Road on Wilmington River next to Bradley Creek.

Bandy's Bait and Tackle -- 7012 LaRoche Ave. on Herb River.

GLYNN COUNTY Public Boat Ramps South Brunswick River -- Ga. 303 at South Brunswick River.

Blythe Island -- Turn right off Ga. 303 on Blythe Island Drive. Go past Interstate 95. Turn right on second road on right. Two ramps are at the end of the road on Turtle River.

Turtle River -- On Ga. 303 at Turtle River. MacKay River -- On Torras Causeway at MacKay River.

Harrington -- On St. Simons Island, turn right off Frederica Road at the Red Barn, then go to dead end at Village Creek.

Altamaha Fish Camp -- Northeast of U.S. Hwy. 341 at Everett on paved road. Approx. 1¼ miles to Altamaha River.

Fish Camps and Marinas

Mac's Bait -- East of U.S. Hwy. 17 on Colonels Island at Jointer Creek.

Jekyll Marina -- On Jekyll Island, go north on Riverview Drive. Jekyll River.

Harry Jones -- On Ga. 303 just north of Turtle River.

Brunswick Marina -- U.S. Hwy. 17 just south of Torras Causeway. Clubbs Creek and Terry Creek Basin.

Troupe Creek Marina -- North on Hwy. 17 past Glynco traffic light. Turn right at marina sign.

Two Way Fish Camp -- On U.S. Hwy. 17 north at Altamaha River.

Golden Isles Marina -- On Torras Causeway at Frederica River.

St. Simons Marina -- On Gascoigne Bluff. Frederica River.

Taylor's Fish Camp -- On Lawrence Road. On St. Simons Island north on Frederica Road North. North of German Village on Hampton River.

LIBERTY COUNTY

Public Boat Ramps

Sunbury -- East of Interstate 95 off Ga. 38 at Sunbury on Sunbury Channel (Medway River).

Fish Camps and Marinas

Colonel's Isle Marina -- East of Interstate 95, off Ga. 38 on Drum Point Landing turn off. Newport River before the landing.

Yellow Bluff Fishing Camp -- East of Interstate 95 on Ga. 38 at dead end. Ashley Creek.

Lake George -- Between U.S. 17 and Interstate 95 on Gress River approx. 1 mile from Liberty/Bryan County line.

McINTOSH COUNTY Public Boat Ramps

Champney Island -- Turn west off U.S. Hwy. 17 on south side of Champney River Bridge.

Darien -- On U.S. Hwy. 17 north of 1st traffic light in Darien. Turn left, ramp is $\frac{1}{2}$ block down on left on Altamaha River.

Old Fort Barrington -- At Old Fort Barrington on Altamaha River off Ga. 251 past Cox.

Harper Lake -- At Harper Lake on Altamaha River off Ga. 251 past Cox.

White Chimney -- On Shellman Bluff road at second White Chimney River Bridge.

Ridgeville (public docks) -- Off Ga. 99 at Ridgeville on North River.

Fishing Camps and Marinas

Harold's Fishing Camp -- East of U.S. Hwy. 17 off Ga. 131 south of Barboar Island River. Kip's Fishing Camp -- East of U.S. Hwy. 17

at Shellman Bluff on Broad River. Fisherman's Lodge -- Same as above. Belle Bluff Island Marina -- East of U.S.

Hwy. 17 between Pine Harbor and Shellman Bluff on White Chimney River.

Barboar Island Marina -- East of U.S. Hwy. 17 on Harris Neck Road, past end of Ga. 131 on dirt road at Swain River.

Harris Neck Fish Camp -- Same as above. Dasher's Marina -- East of U.S. Hwy. 17 at Pine Harbor on Belleville River.

McIntosh County Rod and Gun Club -- Off Ga. 99 at Ridgeville on North River.

Blackbeard Cove Marina -- Same as above. Contentment Bluff -- East of U.S. 17, proceed through Shellman Bluff to

Contentment Bluff on Julienton River. McLamb Fish Camp -- East of U.S. Hwy. 17 on Shellman Bluff at White Chimney River.

--Compiled by Jack Hutchinson

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 31523.

Coastal Georgia Sport Fishing Tournaments

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SPONSORS The Landings Harbour Skidaway Island	TOURNAMENT Kingfish	DATES June 7, 1980	CONTACT Chuck Mangos (912) 352-3101
Two Way Fish Camp	Tarpon	June 15 - Labor Day	Two Way,Fish Camp (912) 264-9723
Savannah Shark Hunters	Shark Firecracker 1000	July 4 & 5	Mary Lou Boyd - (912) 233-4516 Alvin Berry - (912) 233-1000
Golden Isles Sport Fishing Club Sponsors: Emeline & Hessie Jack's Minit Market Edwards Construction Varsity Supply James A Mauphin	King Mackerel	July 12 - 13	Gene Wells June Wells (912) 638-3678
Savannah Sport Fishing Club	Kingfish	October 4, 1980	Sav. Sport Fishing Club Bradley Point Savannah, Georgia

*If you know of any sport fishing tournaments in your area you would like published in future editions of **Coastlines Georgia**, please contact the Department of Natural Resources at (912) 264-7330.



St. Catherines: A Unique Barrier Island

A sable antelope herd basks in the sunlight on a grassy field. Nearby, crowned cranes feed along the shores of a freshwater pond. Is this somewhere on the plains of Africa? No, it's the coast of Georgia, the island of St. Catherines.

Located between Ossabaw and Sapelo Islands, St. Catherines' special uniqueness stems from its special inhabitants. On St. Catherines is located the site of a rare and endangered animal research facility maintained by the American Museum of Natural History and the New York Zoological Society. Since 1972, these groups have worked in conjunction with the Edward J.Noble Foundation, owners of the island, in an attempt to breed certain species of animals in captivity. It is thought that someday these captive stocks may be needed to replenish native populations under pressure of extinction.

A small staff of zoologists who reside on the island care for a variety of species, especially antelopes and cranes. Within spacious seminatural enclosures are the oryx, a light colored antelope with long straight horns; the addax, an antelope with beautiful spiraled horns; sable, one of the largest and most aggressive antelopes; and several other species of antelope native to Africa. Flocks of cranes include the sandhill crane, an endangered North American species; the crowned crane, a distinctive bird with a straw-colored crown; and wattled crane, a large crane with two feathered wattles, or fleshy projections, hanging from its chin. Other animals kept on St. Catherines include Grevy's zebra, red kangaroo, tortoises, and Hawaiian geese.

By no means are these exotics the only

species of animals on St. Catherines. The Island supports tremendous numbers of whitetailed deer that can often be seen grazing in the back-dune area. Wild pigs are also in abundance, as are small mammals including raccoon, eastern mole, gray squirrel, marsh rabbit, and several species of mice and rats, Birdlife is plentiful and is as varied as the habitats of the island itself. Highland areas total approximately 6870 acres. Supported here are resident populations of songbirds, woodpeckers and migrants such as warblers, sapsuckers, and phoebes. Also found in wooded areas are birds of prey, such as the bald eagle and the osprey, which has a concentrated nesting area in an open pine



Animals such as this addax led an exotic atmosphere to St. Catherines.



A family of gazelle roams the confines of a breeding research area.

forest area on northern St. Catherines. Marsh and slough habitats (roughly 7770 acres) are populated by egrets, herons and migratory waterfowl, while shorebirds frequent the 11 mile beach zone.

A unique feature of St. Catherines is the high bluff overlooking the ocean on the northern end of the island. This 25 foot high bluff that extends for approximately one mile is anchored by live oak trees. A bluff of this size and length is atypical of Georgia's barrier islands, and perhaps this is what attracted the Creek Indians to form a large settlement on St. Catherines. Archeological research since 1974 has shown the island to be one of the most important early Indian sites in the southeast.

The first coastal Spanish mission was established on St. Catherines in 1566. It was not until Georgia was colonized in the early 1700's, however, that the island was permanently settled by white colonists.



St. Catherines' 25-foot high bluff extends for over one mile overlooking the island's pristine beaches.

Perhaps the islands most famous resident was Button Gwinnett, a signer of the Declaration of Independence. He owned a plantation on St. Catherines between 1765 and 1777 and helped write the first constitution of Georgia. After several changes of ownership, his house was restored in the early 1900's and still stands in the northern part of the island. In 1943, Edward J. Noble purchased the island and raised cattle there until his death in 1958. The non-profit foundation named in his honor has owned St. Catherine's since 1969.

Due to the sensitivity of current archaeological and breeding research, the Noble Foundation has severely restricted public access to St. Catherines. Visitation is by invitation only, but if the opportunity to visit the island should arise, it is an experience not to be missed.

--Ron Essig, Susan Shipman

Artificial Reef Brochure Available

Flat. Sandy. Barren. For the most part, this is a typical description of the ocean floor off Georgia's coast. Until lately, good sport fishing was limited to a few nearshore live bottom (limerock outcropping) areas and fish habitates some forty miles offshore. Good nearshore locations for SCUBA diving and sport fishing were virtually nonexistent . . . Together with assistance from the National Marine Fisheries Services' Artificial Reef staff, Georgia DNR began a nearshore artificial reef construction and research program in 1972. Since then, the reef project has resulted in the construction of nine reefs . . .

The above are the opening paragraphs of the most recent "Coast Card" which describes and gives the locations of Georgia's artificial reefs. This "Coast Card" and others are available by contacting the CRD library at 1200 Glynn Ave., Brunswick, Georgia 31523, phone 912-264-7330.

--Eleanor Y. Waters

1980: The Year Of The Coast

Governor George Busbee has proclaimed 1980 as Year of the Coast in Georgia to focus attention on the importance of Georgia's coastal resources. The Governor's action follows a national proclamation by President Jimmy Carter in his second environmental message in an attempt to provide a new national awareness of coastal issues.

The Coastal Resources Division (CRD) of the Department of Natural Resources has been actively promoting "Year of the Coast" (YOTC). Brunswick Mayor Reggie Holtzendorff proclaimed 1980 as the Year of the Coast in Brunswick and the Brunswick Spring Fiesta was declared a YOTC event. The CRD had an exhibit at the Brunswick Fiesta and the Darien Blessing of the Fleet that emphasized YOTC. DNR tours to the Sapelo Island National Estuarine Sanctuary will feature the importance of YOTC activities and the many school groups that visit CRD will be told about YOTC.

In April, the Coastal Georgia Audubon Society sponsored a YOTC beachwalk on Jekyll Island and the Golden Isles Sailing Club has scheduled all of its activities as YOTC events. Other agencies and organizations are encouraged to plan or declare their events and activities as YOTC occasions.

The Coastal Management Section of CRD is coordinating YOTC happenings for the State and informs the National Coordinator, the Coast Alliance, of all YOTC activities. If you or your organization has a YOTC idea or event, please contact Rick Cothran at 1200 Glynn Avenue, in Brunswick, Georgia 31523, phone (912) 264-7218.

A few ideas for the Year of the Coast activities are listed below:

*Urge your governor, mayor, or city council to declare 1980 as YEAR OF THE COAST.

*Establish and promote science fair awards for coastal resource projects.

*Collect signatures on petitions calling for wiser management of coastal resources and present them to key elected officials.

*Invite a coastal speaker to address an organization to which you belong, or offer to provide a speaker to civic organizations, neighborhood groups, schools, etc.



*Set up tours of wetlands, tidepools, beaches, islands, and other coastal areas in all four seasons aimed at increasing awareness of ecological processes and coastal geology or arrange a tour after dark to explore night creatures of the beach environment.

*Sponsor walking tours of a historic coastal building in a town, seashore resort, or fishing village. Sponsor a community beach walk.

*Survey an area of the coast to identify sources of polution, development in highhazard zones, and other examples of unwise use of coastal resources.

*Ask local radio stations to designate coast appreciation days with public service announcements, interviews, and debates on coastal issues, with music programming on coastal themes.

*Invite your congresspersons and candidates for public office to speak on coastal issues during 1980. Urge them to support coastal legislation and the coastal zone management program in their state.

*Develop special library activities, exhibits, slideshows, movies, and booklists on coastal topics. List and describe famous local shipwrecks.

*Arrange open house in/on: commercial fishing boats, tug boats, fire boats, ferry boats, oceanographic research boats, seafood processing plants, and shipbuilding facilities.

*Organize a Great Bike Ride along the coast with stops along the way for events that draw attention to coastal issues.

*Establish an annual prize for awarding by a coastally-oriented organization to the individual or group best serving the interest of the coast.

*Organize a marshland restoration project or a clean-up beach or estuary project.

*Arrange float trips down rivers to the coast.

*Set up a demonstration exhibit of watercrafts such as shipbuilding, sailmaking, ropemaking and waterfowl decoy carving.

*Arrange a scavenger hunt in a coastal area based upon identification and location of seashells, shorebirds, geological features, historic sites, etc.

*Sponsor a kite flying and sand sculpture contest.

*Hold a tall fish story, coastal poetry, and coastal photography contest.



Bolton Receives Rock Howard Award

The Rock Howard Award, presented annually to the person who has done the most toward the conservation of the natural resources of Georgia, was given this year to Arthur Bolton, Attorney General of Georgia. Bolton received the award at the second annual celebration of Georgia Heritage Day on May 1, 1980. The award was presented by Natural Resources Board Chairman Sam Cofer at Jarrell Plantation Historic Site, in Jones County, Georgia.

Cofer pointed out the many years of involvement by Bolton, first as a member of the General Assembly and later as Attorney General. Among Bolton's many accomplishments has been involvement in protecting the coastal marshes from destructive mining operation, perservation of the beaches and tidelands, and drafting of legislation, codes and regulations dealing with flood plain protection, aquifer penetration, dam safety and the Chattahoochee River Basin. Cofer said, "The State of Georgia and its people are fortunate indeed, to have Arthur Bolton as a defender of its environment and natural resources."

The Rock Howard Award is given in honor of the late R. S. Howard, Jr., first director of the Environmental Protection Division of the Department of Natural Resources, who became internationally known for his courageous and dedicated leadership in clean water, air and public awareness of our responsibility for maintaining the quality of the total environment.



Sea Turtles In Georgia

Creatures of the sea, fantastic in shape and size, are fascinating to man. Sea turtles are no exception. The enormous size of the sea turtle attracts special attention. The leatherback turtle is the largest of the five Georgia species, weighing between 700 and 1600 lbs. The smallest sea turtle is the Atlantic Ridley, which rarely weighs over 100 lbs.

The sea turtle is a shell-covered reptile. Unlike it terrestrial relatives, the marine turtle cannot retreat into its shell. The shell on sea turtles, with the exception of the leatherback, is made up of bony plates which are fused to the internal skeleton. The leatherback has a soft-shell. The upper portion of the shell is called the carapace. The lower portion of the shell is called the plastron. Flippers, rather than feet, make the sea turtle well adapted to the sea. But, when a female turtle comes to shore to nest, her flippers cause her travel to be slow and deliberate.

Size and strength, do not guarantee survival. Sea turtles are threatened by many creatures and their activities. Raccoons, pigs, ghost crabs, and people consume great numbers of turtle eggs. Shore birds feast on the hatchlings as they head toward the sea.

There are laws protecting sea turtles. In 1973, Congress enacted the National Endangered Species Act, amended in 1978, to protect all species of turtles entering U.S. waters. The green, Ridley, leatherback, and hawksbill turtles are considered endangered. It is unlawful to tamper with these turtles. The loggerhead turtle is listed as threatened. While it is unlawful to tamper with this turtle, dead or alive, one will not be penalized for incidentally capturing a loggerhead, provided care is taken with the turtle and it is promptly returned to the water. This legislation affects shrimpers, property owners, beachcombers, scientists, conservationists and island developers.

In order to answer the many concerns of different interest groups, a great deal of new information is needed. Each interest group has a different view of the situation. To a Georgia shrimp fisherman, the sight of a loggerhead may bring to mind the expense of a damaged net, the difficulty of handling a 300 pound turtle, the fear of prosecution for having an endangered turtle on board, and the fear that there will be more regulation on shrimping activities. A shrimper has many valuable observations and a great deal of personal experience with sea turtles. Summarization of the number of turtles and the places where the shrimpers see them, will result in a more accurate picture of the turtle population.

Conservationists may have a different perspective. The sight of a dead loggerhead turtle, washed ashore, concerns people. Why is it there? What proportion of the population is washing ashore? Is the population of loggerhead turtles increasing or decreasing? The sight of a nesting female brings different questions and concerns to a conservationists mind. Turtles are guided by instinct; are they significantly disoriented by the shore lights? Eggs hatch during the night and the hatchlings head toward the sea. How do these myopic creatures know where the ocean is? Do lights have something to do with it? A conservationist may be concerned with the impact of the island development on nesting habits of turtles.

Fortunately in Georgia, there are developed and undeveloped islands which give researchers a variety of survey areas. Island developers in Georgia are also concerned about turtles. They encourage studies and are anxious to cooperate with research programs. A wealth of information is gathered through the cooperation of concerned island developers and managers.

A realistic turtle management plan must be developed that addresses the issues of each interested group. In order to do this, and insure that each group is fairly represented, a great deal of information must be gathered.

The Coastal Resources Division of the Department of Natural Resources and the Institute of Ecology of the University of Georgia established a Georgia Marine Turtle Management Team. Information is being gathered by the management team that is essential to the management plan being developed.

As a part of the Georgia Marine Turtle

Management Team, a standing network exists on Cumberland Island, Little Cumberland Island, Jekyll Island, St. Simons Island, Little St.Simons Island, Sea Island, Sapelo Island, Blackbeard Island, St. Catherines Island, Ossabaw Island, Wassaw Island and Tybee Island. Beginning in April, beached carcasses were counted and recorded by a volunteer turtle-stranding observer. The stranded turtle, once measured, is marked or buried to avoid double counting. Information of location, sex. and condition of the turtle is recorded. Presence or absence of tags is recorded. After necessary information is gathered, disposal personnel are contacted. The disposal personnel are quite helpful in gathering information and contacting members of the management team before burying the decomposing turtle.

Little Cumberland Island, Jekyll Island, Wassaw Island, and Ossabaw Island have turtle hatchery programs. On these islands, nesting females are tagged and released. Eggs are taken from the nests to simple hatcheries. Wire boxes protect eggs from ghost crabs, racoons, hogs and people. Important research is conducted through these hatchery programs. Not only are hatchlings tagged for future information, they are also closely monitored during incubation. Important information is gathered in this manner. Beaches are patroled during the night, since this is the time the loggerhead chooses to nest. Dedicated individuals conduct these patrols. Interested persons can accompany the Jekyll Turtle Patrol, created and staffed by the Coastal Georgia Audubon Society, Jekyll Island Authority, and Coastal Resources Division, Georgia DNR. Sign up sheets are at the American National Bank on Jekyll Island.

Wassaw Island also has a hatchery program. Each patrol team lives on Wassaw Island and for one week performs a variety of activities dealing with loggerhead turtle research. Interested persons should contact Gerry Williamson at the Savannah Science Museum, 4405 Paulsen Street, Savannah, Georgia 31405. Ossabaw Island and Little Cumberland Island have private hatchery programs. A tremendous amount of data is collected on these islands. Thousands of turtles have been tagged on islands with hatchery programs, providing information about growth and migration of loggerhead turtles.

The gathering of information leading to understanding of growth, migration, and population size requires cooperation. Designated people are tagging loggerhead turtles with multiple plastic and metal tags. Tags are often returned by shrimpers when they catch the turtles in their nets. When a shrimper catches a tagged turtle, he should remove one tag, resuscitate the turtle if necessary, return the loggerhead to the sea and contact one of the members of the Marine Turtle Management Team. There is a reward for returning one tag with pertinent information.

A beach walker may see a tagged nesting female. Do not disturb the turtle. Feel free to observe it, the nesting process is remarkable. Read and remember the tag number, but do not remove the tag. The turtle may return several times in a nesting season and the tag will document this occurrence. Contact a member of the management team with the information.

If a turtle carcass has a tag on it, remember the number and call a member of the management team. The laws protecting sea turtles make this the wisest process to follow.

A marine turtle recovery team, consisting of a geographic spread of marine turtle experts, meets regularly to discuss management plans, progress, and problems. Integration of information from many different sources will result in the formulation of a plan that will allow the sea turtle to inhabit these waters and take the goals of concerned interest groups into careful consideration.

Any information or questions concerning marine turtles should be relayed to: Anne Mullins or Chuck Cowman, Georgia Marine Turtle Management Team, 1200 Glynn Ave., Brunswick, GA 31523, (912) 264-7218.

> --Anne Mullins Loggerhead turtle illustration courtesy of Georgia Sea Grant Program



Volunteer turtle networker William Patterson measures the carapace width of a stranded loggerhead turtle on St. Simons Island.



Canoeing The Okefenokee

Lying just outside of southeast Georgia's coastal plain region is a 400,000-plus acre bog swamp ideally suited for exploration by canoe. The cypress bays and sphagnum bogs which make up more than half of the swamp's acreage give the swamp its Indian name of "land of the trembling earth". Actually the "earth" that the Indians were referring to consists of sphagnum masses continually rising from the bottom to form quaking mats. Prairies are also distinctive Okefenokee habitats consisting of large marsh areas without trees and choked with aquatic vegetation. Island habitats, only about 5% of the swamp's total acreage, are either pine barrens of primarily slash pine or hardwood hammocks of oak and magnolia.

Details

One or all of these different environments may be traversed during either day trips or wilderness canoe trips coordinated by the Okefenokee National Wildlife Refuge. Wilderness trips, which range in length from overnight (12 miles) to 6 days (55 miles), are by permit only, while day trips require no reservations. Due to the popularity of Okefenokee wilderness canoeing in recent years, trips should be reserved well in advance. Current refuge policy is to issue permits only up to two months in advance through the refuge office, PO Box 117, Waycross, GA 31501 (912/283-2580). Be aware that at certain times of the year, especially lat fall or winter, low water may force the closure of some of the trails, so there is always the possibility that a long-awaited trip may be cancelled.

Starting locations are either Kingfisher Landing, 13 miles north of Folkston off U.S. Route 1; Suwannee Canal Recreation Area or Camp Cornelia, 11 miles south of Folkston off State Highway 23; or Stephen C. Foster State Park, 17 miles northeast of Fargo on State



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Road 177. All three locations are situated in cypress bog habitats, but the first two are also in the vicinity of several large prairies while the third is nearby to numerous island habitats. Canoes can be rented at either the Suwannee Canal Area for day or overnight trips or Stephen Foster for day trips only. Trails are well marked and designated campsites are either located on hammocks or wooden platforms above the swamp.

Craven's Hammock

One of the three overnight trips which start and end at the same point (thus eliminating the need to shuttle cars) is the trail to Craven's Hammock. Leaving from Stephen C. Foster State Park, this trail passes through Billy's Lake, formed at the junction of the Middle and East Forks of the Suwannee River. This pickerelweed-lined lake is a popular fishing spot for those seeking largemouth bass, bream, and warmouth bass. The next couple miles are a test of a canoeist's fortitude, as most of this stretch is covered by water lilies and spatterdock which often protrude more than a foot above the water surface. Also in abundance is bladderwort, a yellow-flowered plant with submerged leaves bearing animaltrapping bladders. Dragonflies and their more delicate relatives, the damselflies, seem to be everywhere as the trail passes by fetterbush shrubs heavily laden with rows of white flowers when in bloom during April and May.

Halfway to the hammock the trail skirts a

portion of the earthen dam built on the Suwannee River for flood control. Since this is the only solid ground encountered until reaching the hammock itself, it is a good opportunity to stretch one's legs and look for signs of common swamp mammals such as marsh rabbit, raccoon, and otter, or the more rare round-tailed muskrat. The final portion of the trip is along a series of open watercourses winding through cypress forests and stands of maiden cane grass. Large chiseled holes in bald cypress trees are evidence of the pileated woodpecker, a large bird similar in appearance to the ivory-billed woodpecker. This latter species is also believed to be still present deep in the swamp though rarely seen. Prothonotary warblers and white ibises seen in this section are two of many bird species common to the Okefenokee.

Upstream of an area ponded by a cypress log jam, the hammock is finally reached, and camp is made among southern magnolia and saw palmetto. In the darkness of night one gains a full appreciation for the life of the swamp by just listening to the variety of sounds. Against a background chorus of bullfrogs, the distinctive call of the barred owl and an occasional alligator bellow dominate the natural music of the Okefenokee. Thoughts of another full day of exploration of this vast wilderness prevail as one's weary body easily succumbs to the day's rigors.

--Ron Essig



Et Cetera.



Gary Altman of Brunswick landed this state record bluefish while live lining on Artificial Reef G. The 17 lbs. 12 oz. specimen was among 400 lbs. of blues caught by Altman and companions Chuck Hall, Ken Doss, and former bluefish record holder, Allen Woods.



Marine biologist Chuck Cowman (R) was recently appointed a DNR deputy conservation ranger. This appointment will aid Chuck in performing his duties as head of CRD's endangered species program.



Clemson graduate Anne Mullins is coordinating efforts between CRD and the University of Georgia for a cooperative marine turtle research project. The project involves a network of workers along the coast on the alert for sightings of stranded and swimming loggerhead turtles.



New data management section chief Ron Essig holds a Masters in fisheries biology from the University of Massachusetts. His articles on canoeing the Okefenokee and camping on St. Catherines Island appear in this issue of *Coastlines*.



Coastal Resources Division

Department of Natural Resources 1200 Glynn Avenue Brunswick, GA 31523

(Photo by Virginia Baisden)

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