May - June, 1979

Volume 2, No. 1

Coastlines Georgia

COASTLINES GEORGIA is published by the Coastal Resources Division, Department of Natural Resources, 1200 Glynn Avenue, Brunswick, Georgia 31520.
Dr. Robert J. Reimold, Director
Bill Morehead, Editor
Funds defraying partial cost of this newsletter are made available to DNR from the Office of Coastal Zone Management, National Oceanographic and Atmospheric Administration, Washington, D.C.

4,500 copies printed at a cost of approximately $2,250.00

Editorial

by Dewey Benefield, Chairman
Coastal Management Board

Everyone concerned with Georgia's coastal zone management program was pleased that the federal Office of Coastal Zone Management did not suspend the Georgia program on the April 30 deadline for approval. OCZM agreed that the Coastal Management Board and the Georgia CZM staff had made substantial progress in meeting the federal requirements. They did state that additional "substantial progress" must be shown by June 15 or the funding of the program would cease.

It is encouraging to see that the federal bureaucrats are finally beginning to realize what coastal Georgians have known for many years -- that our coast is in good shape and that we are managing our resources wisely. We are optimistic that we can continue to document this fact and submit a coastal zone management plan acceptable to the federal government.

The success of our on-going management plan for the Georgia coast has been brought about with the cooperation of private property owners and a progressive state government working with responsible local and county governments. In comparison with other coastal states, even other southeastern states, the coast of Georgia is in excellent shape. We want to keep it that way and at the same time provide a plan for orderly and environmentally sensitive growth. This will insure that the Georgia coast of the next century will be at least as desirable as the one we enjoy today.

The ultimate goal is not the federal funds that will flow into the state even though they are most important, it is getting the citizens of coastal Georgia to agree on a plan to manage their own affairs. This is what's important and this is what we're going to do. And while we're doing it we will keep trying to convince the fedeal officials tha our program merits the support and funding of OCZM. It may not fit all the desires and designs of the Washington bureaucracy but it will be a program that will fulfill the hopes and aspirations of all citizens of this state.

Shad

(Georgia's Forgotten Fishery)
by Kathy Smith

The need for a shad catch effort study arose from an alarming decline in shad catches in recent years (Figure 1). The reasons for the decline are unknown. Man has a tremendous capacity to manipulate, change, and 'develop' his environment through channelization, dams and pollutants. These changes are affecting the shad, but to what extent is unknown. The market demand for shad could also be decreasing; therefore, fewer fishermen are fishing the rivers than in previous years. Whatever the reasons, shad catches have been steadily decreasing, and resource managers have seen the need for a comprehensive shad management program.

Although Georgia shad landings have been low, landings from as far back as 1880 indicate that the present landings fall within the normal range of fluctuation for the fishery. This season's landings totaled 227,111 pounds. Landings from the 1880's, early 1920's, and early 1930's are comparable to this season's landings. Landings have not reached the peak levels of 1902 and 1908, when catches of over one million pounds were landed. Landing statistics, however, reflect fishing effort, accuracy of landing data collection, and market value, but are not a good indicator of the actual shad population in Georgia's rivers.

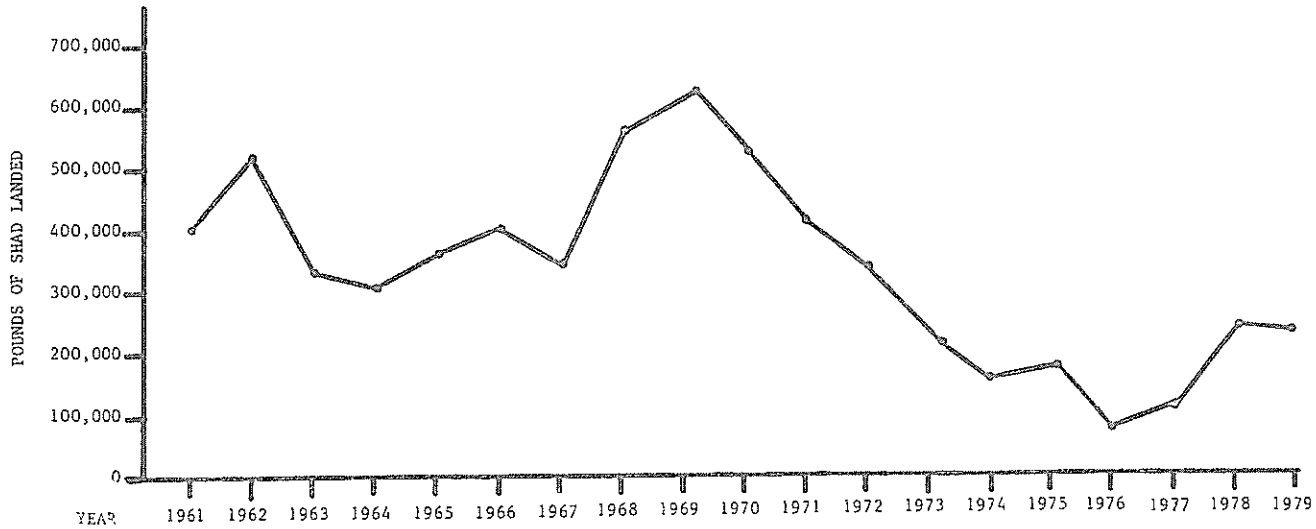
An unwelcome catch. Gar cause a lot of damage to shad nets, although gar roe can be sold for fish bait.

The America shad (*Alosa sapidissima*) is an anadromous fish. The word anadromous comes from the Greek word anadromos

FIGURE 1

ANNUAL COMMERCIAL SHAD LANDINGS IN GEORGIA

1961 - 1979



Winter on Georgia rivers. Sturgeon and shad nets line the banks.

meaning "running up." Shad annually migrate from the ocean into coastal freshwater rivers to spawn. Commercial shad fishing takes place during this freshwater migration. After spawning, spent fish return to the ocean. Little is known of their ocean habits. It is assumed shad spend most of their life on the ocean bottom for they are known to feed on bottom dwelling organisms. Shad belong to the herring family, Clupeida. They are the largest members of this family. The female weighs an average of 4½ pounds with a fork length (from head to the fork of the tail) range from 14 to 23 inches. The male weighs close to 3 pounds and has a fork length range of 13 to 23 inches. When shad first enter freshwater their sides and back are a shiny silver to blue metallic color. The farther shad travel into freshwater the more their backs fade to a dull brown.

Migration into freshwater depends on a variety of factors but water temperature plays the leading role. Migration begins from the southernmost rivers starting with the St. John's River in Florida to the Gulf of St. Lawrence in Canada. As the water temperature in the rivers reaches between 56 and 66 degrees Farenheit, the major numbers of shad ascend the rivers. In Georgia, the Altamaha River gets a good run of shad two to three weeks before the northern Savannah River.

Most female shad spawn for the first time when they are from three to five years of age. They can spawn from one to five times during their lifetime. It was once thought that the shad spawn in the same stream of their birth, return to a main school of shad, and migrate south for the winter. While shad may return to the same river of their birth for spawning, scientists now believe shad remain in offshore waters adjacent their native rivers, moving back upstream to spawn as temperatures rise. Their close proximity to their native streams while offshore indicates a lack of the refined homing sense of the salmon.

Shad do not usually feed during their upward migration, although they will strike at sport fishing lures. They rely on fat reserves in the bodies until spawning. During early migration males outnumber females whereas females dominate later in the season.

In Georgia, spawning usually occurs in April in areas usually located at the mouths of creeks where warm water mixes with cooler river water. The fish swim side by side in pairs with their fins projecting above the water. Their swimming movements are rapid and spasmodic. Their spawning behavior has been observed by onlookers from the riverbank. The shad violently churn the water with their movements, and their silvery bodies can be seen gleaming as they swim close to the surface of the water.

A roe shad coming out of Wallace Barwick's Altamaha River shad set net. The mesh size of the net is large enough to let smaller fish swim through.

TABLE 1.
1979 SHAD SEASON

		Spent* Roe (lbs)	White* Roe (lbs)	White* Buck (lbs)	Hickory* Roe (lbs)	Combined Totals (lbs)
January	Savannah River		5,817	2,500	8	8,325
	Ogeechee River		819	675	0	1,494
	Altamaha River		8,816	3,500	128	12,444
	Totals	0	15,452	6,675	136	22,263
February	Savannah River		20,269	11,500	195	31,964
	Ogeechee River		3,772	1,950	15	5,737
	Altamaha River		32,803	9,500	316	42,619
	Totals	0	56,844	22,950	526	80,320
March	Savannah River		50,558	13,077	153	63,788
	Ogeechee River		11,417	1,715	0	13,132
	Altamaha River		36,699	4,680	72	41,451
	Totals	0	98,674	19,472	225	118,371
April	Savannah River	133	4,671	404	0	5,208
	Ogeechee River	35	1,358	156	0	1,549
	Altamaha River	0	0	0	0	0
	Totals	168	6,029	560	0	6,757
				Season Total (lbs)		227,711
				Season Value		$141,181

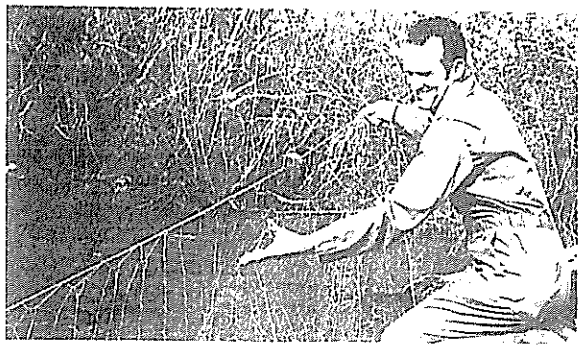
*Spent Roe - Female shad already spawned.
*White Roe - Female shad not yet spawned.
*White Buck - Male White shad.
*Hickory Roe - Female Hickory shad not yet spawned.

The eggs are deposited loosely in the water. A female shad will lay an average of 300,000 eggs. The male swims over the spawning area fertilizing the eggs. Many eggs fail to be fertilized and all are subject to predation. Fertilized eggs absorb water and slowly sink to the bottom. The hatching period is from six to ten days. Newly hatched shad are about a quarter of an inch long, but development is rapid and by fall, young shad are from three to seven inches. Young shad migrate to salt water during cooler weather. Most have left the rivers by December. During this oceanward migration, large numbers of young shad are caught in shrimp nets especially when shrimping in the sounds is allowed.

Commercial shad season began 15 January this year. Landings data were collected from fish dealers along the Altamaha, Ogeechee, and Savannah rivers as far upstream as the shad run. In the first part of the century shad migrated upriver until meeting with a natural obstruction. With the coming of dams and industries located on riverbanks, shad can no longer make such a long journey to their spawning grounds.

Two types of nets are employed in shad fishing in Georgia - set nets and drift nets. Set nets are anchored to one bank and stretch across the river a maximum of one hundred feet. Drift nets are pulled across the main channel of the stream by a boat and allowed to drift with the current. The nets range from 40 to 1,000 feet in length. At the start of this shad season the weather was still fairly cold and shad runs were few. January landings totaled 22,263 pounds (Table 1). The first week in

About The Cover

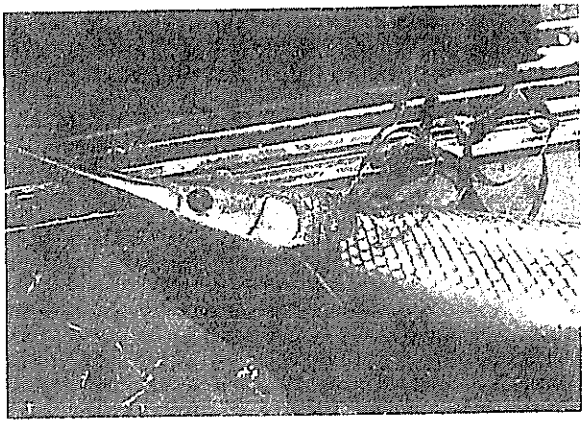


This past winter some 330 shad fishermen like Wallace Barwick of Jesup, left the comforts of home to brave a river and await the big shad run. (Photo by Mike Hardisky.)

February along brought in 23,315 pounds of shad. The first part of March netted the greatest amount of landings. This increase was not entirely due to more fish in the rivers. The warm, sunny weather increased the fishing effort.

Shad caught in coastal counties are shipped to northern markets. There is more of a local market for shad inland. The northern markets determine the money value of shad. As Georgia shad are the first to move to market, prices are fairly high at the start of the season. The female shad (roe) brings a better price than the male (buck), being a bigger, tastier fish and because she contains the roe (eggs) which are a delicacy. Combined buck and roe values averaged 78 cents a pound at the beginning of the season. When shad reach North Carolina and Virginia rivers, the northern markets are flooded with shad and the price drops -- almost overnight. When the price drops, fishermen stop fishing. The graph of shad landings versus shad values illustrates the sudden downfall in value and the subsequent decrease in landings (Figure 2). The season closed on 15 April, 1979. This shad season was a fair season, but as the graph of shad landings since 1961 shows (Figure 1) the catch is not up to former heights.

A recreational shad survey is in the making now that the commercial season has closed.



This poor fellow, a gar, swam through a plastic beverage holder when he was smaller. The device was choking him to death before it was cut off. Such litter is often a wasteful death trap for fish.

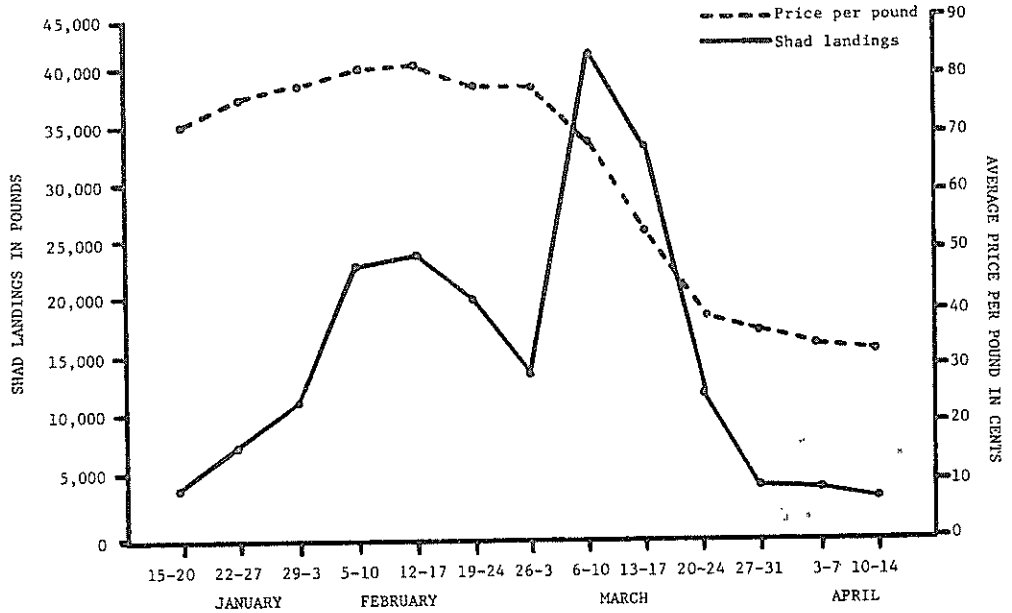
The impact of the sport fisherman on shad landings is not known at the present time.

While the commercial landings data were being collected, opinions from shad fishermen were also gathered. Shad fishermen are largely dissatisfied with the regulations governing shad fishing. The DNR board has been granted the power to regulate shad fishing through legislation passed this year. Perhaps mutual agreement can be reached between the fishermen and the resource managers so that there will be shad fishermen and shad in our rivers for years to come.

FIGURE 2

WEEKLY SHAD LANDINGS VS PRICE PER POUND

1979



Marshwalk Construction

by Bill Morehead

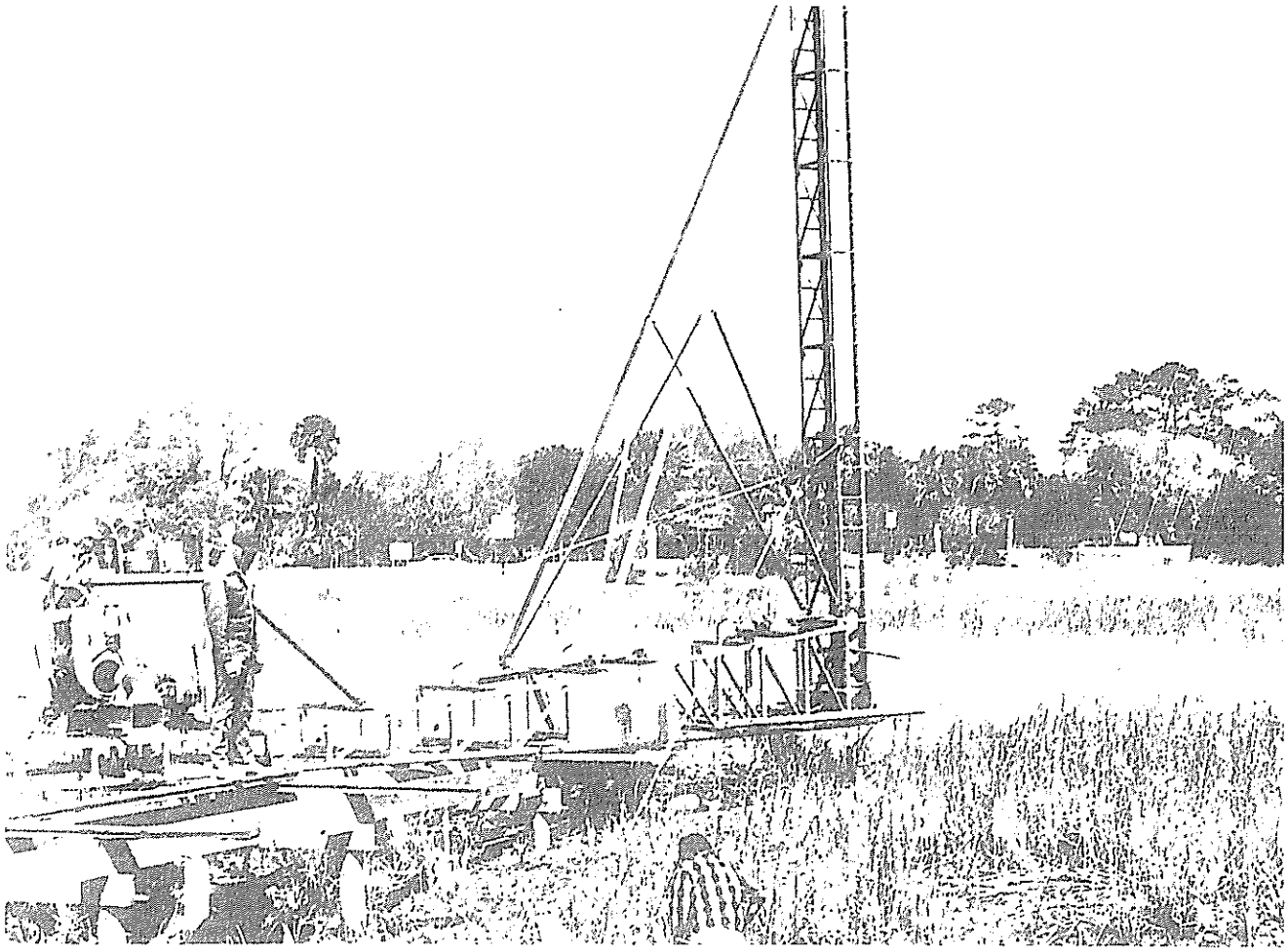
The Overlook Park marsh boardwalk in Brunswick, Georgia, funded by the Office of Coastal Zone Management's Estuarine Sanctuary program, is scheduled for completion by late spring.

When completed, the boardwalk will be used by the Coastal Marine Exhibit and Estuarine Sanctuary staff of DNR for guided tours for educational and general groups. The boardwalk is also designed with kiosks so self-guided tours of groups and tourists can use it.

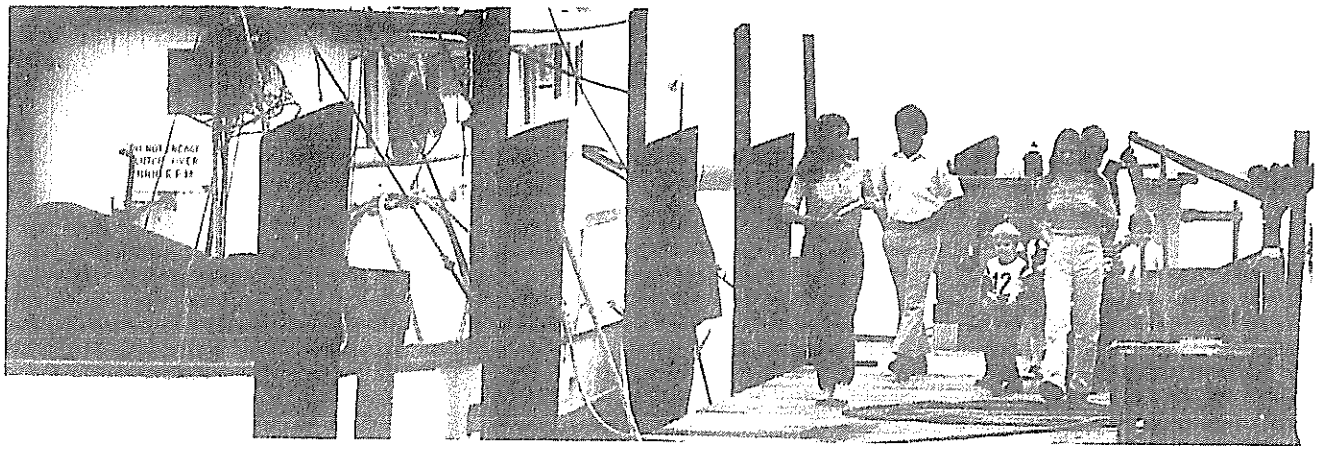
This marsh boardwalk is the first of its kind between Florida and the Carolinas. Especially designed to serve the needs of handicapped visitors, and minimize marsh destruction during construction, the boardwalk will serve both educational groups and tourists. The boardwalk adds a needed extension for the informal educational activities of the DNR Coastal Marine Exhibit and Estuarine Sanctuary programs.

The first informal education activity, the Coastal Marine Exhibit at DNR headquarters in Brunswick, is a cooperative effort of the Brunswick-Glynn County Chamber of Commerce, the Coastal Highway District, the City of Brunswick and Glynn County, and the Coastal Resources Division of the Department of Natural Resources.

The marine exhibit has been very popular with tourists and school groups alike. The marsh boardwalk will serve to introduce the general citizen to the nature and importance of Georgia's coastal marshes and their importance to Georgia's coastal economy and environment.



Employees of the Jerry Edwards Construction Company are shown here using a special machine designed to build the Overlook Park marsh boardwalk. When completed in late spring, the boardwalk will add an important dimension to the Coastal Marine Exhibit and Estuarine Sanctuary's informal education program.



At The Water's Edge

by Jenny Phillips

(photos by Andy Allen and Jenny Phillips)

Where can you go to see an otter trawl, a live shrimp, and a grazing snail -- all without peril to life and limb, and all absolutely free of charge?

These and other coastal curiosities are on display at Coastal Rsources Division headquarters, where you can arrange for a variety of informal education programs. Offerings range from guided tours of the CRD exhibit room and laboratories to discovery sessions in nearby marsh communities.

Since August 1978, over 300 members of school and community groups have participated in ecology programs at the Brunswick headquarters. Staff conducted marshwalks for another 200 people.

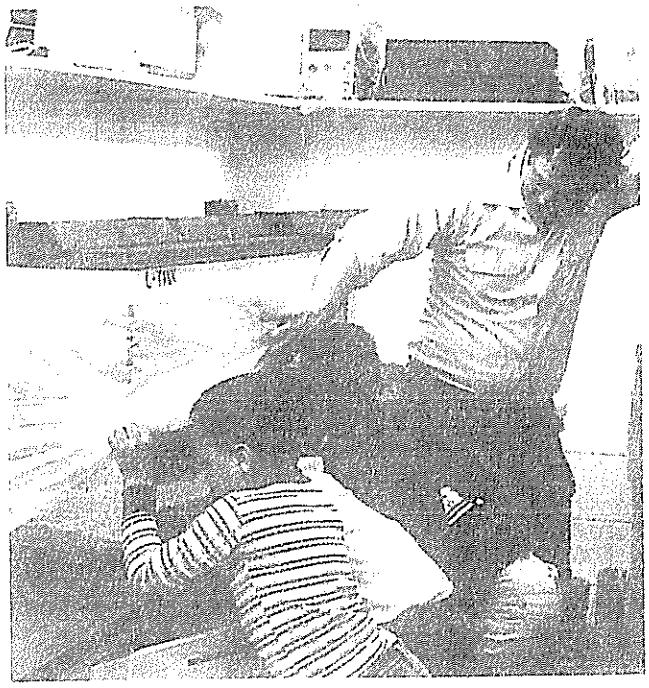
Coastal ecology programs and marshwalks can be arranged for groups of children or adults. YACC staff Gail Phillips and Andy Allen coordinate these activities and will be glad to schedule one for your class or organization. They can be reached at 264-7330.

DOCKSIDE--An ecology program for young students typically includes a walk on the DNR dock to look over research vessels and talk about the creekside marsh landscape. Here, YACC staffer Gail Phillips explains the functions of dockside gear.

HANDS ON EXPERIENCE--CRD's petting aquarium offers watery delights to visitors who, like this child, are willing to take the plunge.Tank inhabitants are carefully selected for their gentle natures. After watching several enthusiastic children crowd around the tank, it's reasonable to guess that the creatures in the tank have also developed a fair amount of patience and fortitude.

STARLIKE SHAPES--Young visitors compare a sea urchin with a starfish, two examples of echindoerms (spiny-skinned marine animals). YACC worker Barbara Harrington points out different shapes among the shells and skeletons in the exhibit room display.

HOW MANY LEGS?--Pre-schoolers watch the waving appendages, while this feisty male fiddler crab tries to pinch his captor, CRD Director Bob Reimold. One child guessed that a crab's legs numbered "Same as us -- three," but others took a more scientific approach and counted all ten legs.



TAKE A PEEK--Biologist Jerry Knowlton lets youngsters glimpse the private lives of shrimp housed in CRD's laboratory. The tank is kept covered because shrimp are easily frightened by sudden movement or tapping on the glass.

COOL AS A WHAT?--Sea cucumbers aren't green, and you don't use them in salads. They do have one unique talent, though: if their original set of internal organs get lost, the leathery "cucumbers" can grow replacements. Here, observers of various ages watch the interactions of Cuke and his tank mates.

Estuarine Sanctuary Developments

by Jenny Phillips

By late summer, increased facilities will be available to Sapelo Island visitors. Projected improvements, located at the mainland dock and on the island itself, will be financed with $150,000 in State supplemental funds recently approved by the General Assembly.

When the project is complete, people can await departure of the M/V SAPELO QUEEN in a functional exhibit center at Meridian Dock. Each Sapelo-bound tour group will be given a short audio-visual orientation session before embarking. The exhibit building will house restrooms, a drinking fountain and pay telephone for the convenience of all boat passengers.

Another part of the construction project is the building of restrooms and a picnic shelter behind the line of primary dunes at Sapelo's Nanny Goat Beach. These facilities will benefit both visiting and resident beachcombers.

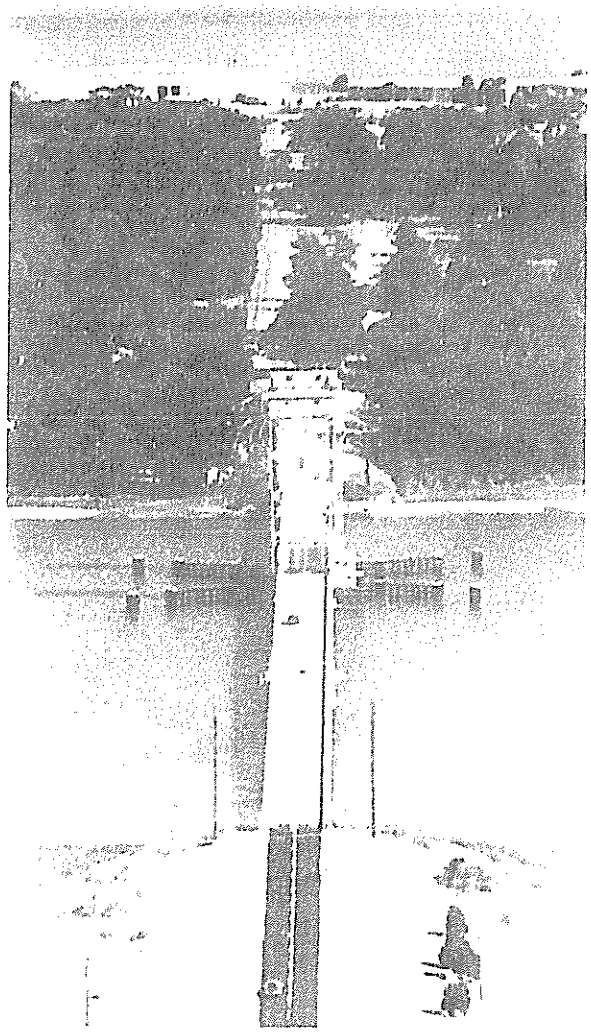
Two new boardwalks will offer sanctuary visitors a close look at marsh and beach vegetation and animal life without disturbing those systems. Creatures of marshes and dunes are notoriously shy and must be approached with caution to avoid scaring them off. The new structures should give people an excellent vantage point from which to observe all kinds of activity below.

Public tours of Sapelo Island National Estuarine Sanctuary continue year-round on a twice-weekly basis. Information on the visitation program may be obtained by calling (912) 264-7330.

Coastal Resources YACC's Now On Jekyll

by Bill Morehead

The causeway leading to Jekyll Island, shown here, will be a familiar sight to Coastal Resources Young Adult Conservation Corps members, at least between now and October.

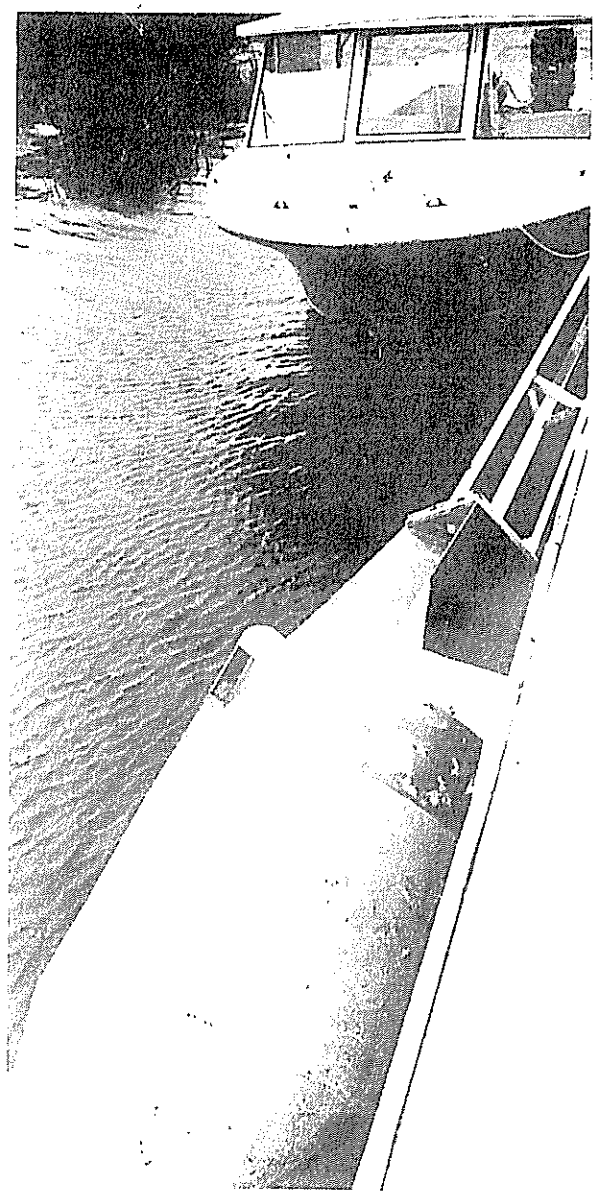


As a result of the success of the Coastal Resources YACC program in the last nine months, the number of enrollees was recently upped from 13 to 20 and Jekyll Island added to their efforts.

The YACC's on Jekyll will conduct sea turtle patrols in cooperation with the Coastal Georgia Audubon Society, make nature trails, conduct recreation programs and work on restoration projects under a cooperative arrangement between DNR's Coastal Resources Division and the Jekyll Island Authority (JIA).

JIA director Bob Case says, "Having the YACC program on Jekyll is very important to us. We have a tremendous potential on Jekyll, but to bring it to fruition in the face of a limited state budget is challenging. The YACC program, as I understand it, provides needed employment for young adults and needed work for us. We are delighted."

Vandals Hurt Reef Program



Acts of vandalism are hurting the artificial reef navigation system off the coast of Georgia, according to Dr. Robert Reimold. Reimold said DNR personnel found a buoy for artificial reef "L" drifting some four miles northwest of its station, 20 miles east of Ossabaw Island.

The new buoy was placed on the reef "L" last November, Reimold said. He said DNR divers found the buoy's achoring system in excellent shape and said the divers have evidence the pin connecting the buoy's shackles to anchor was illegally moved.

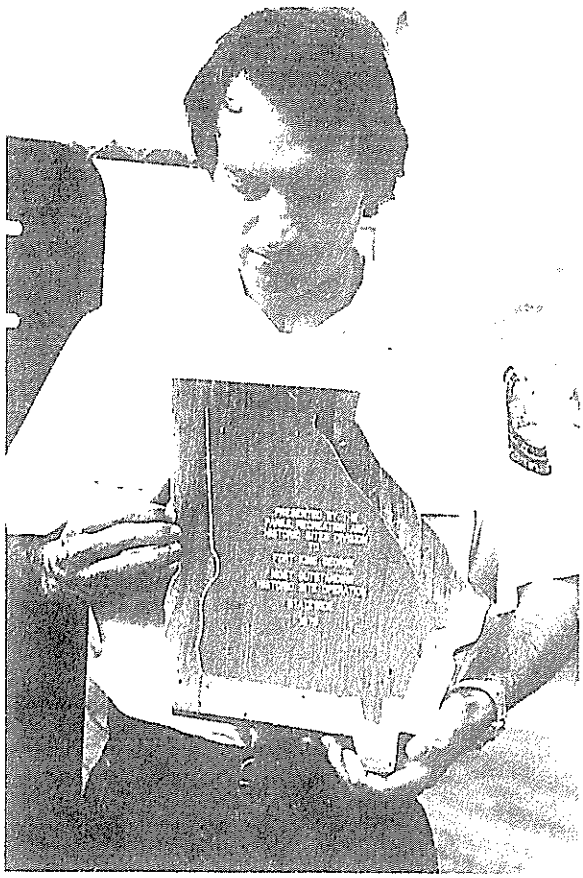
"The people of Georgia cannot afford to build and maintain an artificial reef system only to have it harmed by malicious acts," Reimold said. He said people who cut the buoys loose are trying to keep the reef locations known only to themselves.

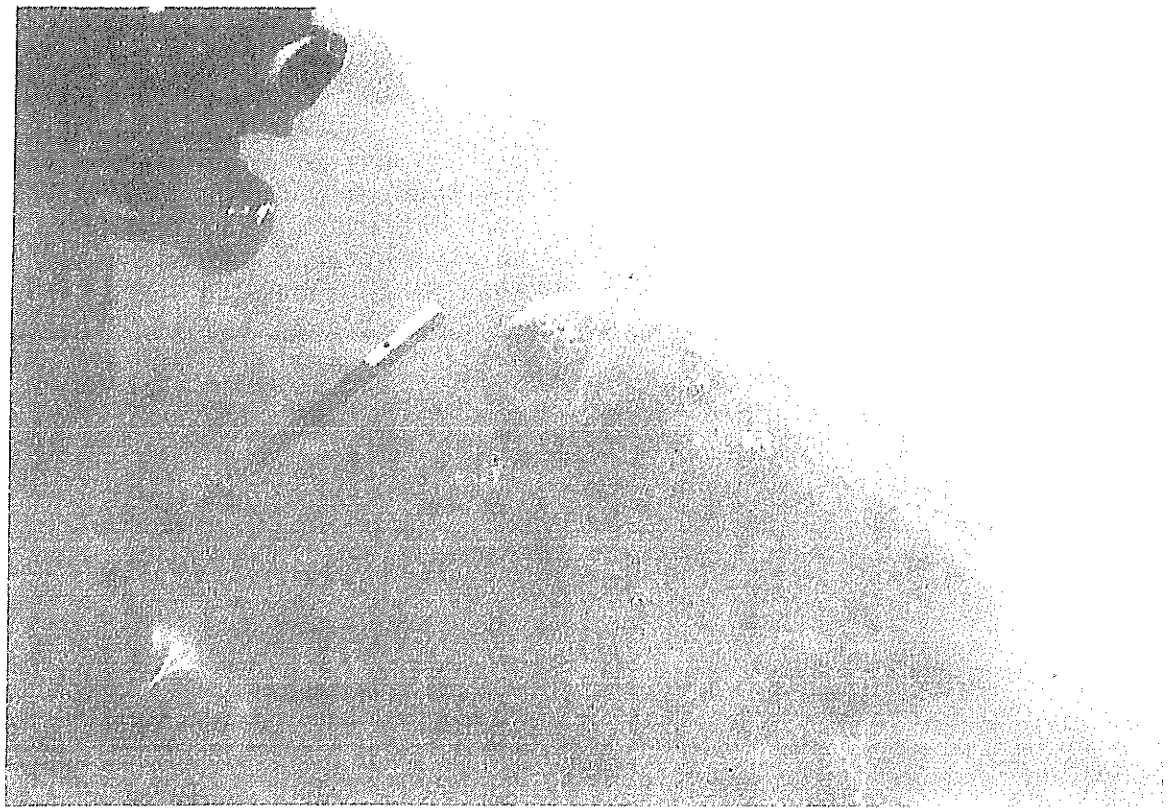
"I understand that malicious tampering with a U.S. Coast Guard approved aid to navigation is a criminal act, subject to a $25,000 fine and five years in prison," Reimold said.

He urged coastal boaters and fishermen to inform DNR of any such tampering "So we can see to it they are terminated."

Fort King George Wins Award

Norm Edwards, curator of DNR's Ft. King George historic site in Darien, Georgia, is shown here holding the "Most Outstanding" award he and the historic site claimed during a recent meeting of the superintendents of Georgia State Parks and Historic Sites at Unicoii State Park.





DNR Divers Turn A Turtle

Henry Ansley, DNR biologist, and David Ansley, first mate aboard DNR's Research Vessel GEORGE T. BAGBY, recently encountered a large loggerhead turtle at the Savannah snapper banks, some 45 miles off Savannah.

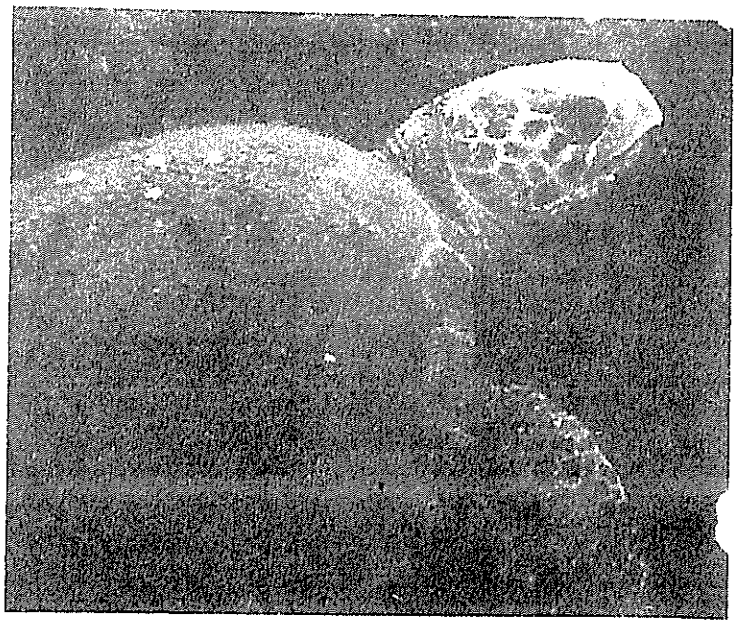
The Ansleys were diving as part of the Coastal Zone Management's funded offshore fishery assessment project. Diving in 110 feet of water, the Ansleys spotted three turtles, which they estimated to be mature adults weighing in around 250 pounds.

Since the Coastal Resources Division of DNR is engaged in a cooperative turtle tagging project with the University of Georgia and the federal government, the Ansleys decided to experiment with hand-capturing live turtles in an open-ocean environment, something which would be invaluable to discovering the migrational habits of the endangered loggerhead.

While Henry Ansley took photos, David moved in on a turtle, grabbed it and turned it around. Henry Ansley shot these photos using a Nikonos camera and Tri-X film.

While Henry Ansley snaps pictures, brother David moves toward a loggerhead.

Loggerheads are long-lived but endangered turtles, and grabbing hold of a 250 pounder 110 feet down is no easy task.



The turtle, apparently preferring to be ungrabbed, moves away from David Ansley, but not before David proved it was possible to tag turtles underwater.

One of the most delicious fish in the oceans, a scamp, surries away from the action. (Note the mature sponge in the lower left of the picture.)

Energy . . .

Georgia's Role In Helping Our National Energy Needs

by Michael Hardisky

Energy will continue to be a national issue for Americans to resolve for many years. We Americans are the largest global energy consumer and consume more energy than the Soviet Union, Great Britain, Japan and West Germany combined. Of our energy, 75% is supplied by oil and natural gas. Alternate energy sources may soon be developed but, realistically, oil and gas will continue to be our major energy source until maybe 1990.

The last potential frontier for discovery of new oil and gas reserves is the Outer Continental Shelf (OCS) of the United States. Approximately 5% of the total land area of the OCS has been offered for leasing. However, this small portion of land area already provides about 18% of our domestic oil and gas production.

Offshore petroleum development is not a new operation. Offshore drilling began as much as 30 years ago with an excess of 20,000 wells already drilled. U.S. technology also provides more than 40 countries around the world with the equipment and know-how necessary to operate offshore oil and gas production.

Offshore areas like the Baltimore Canyon, South Atlantic OCS, and offshore Alaska are the areas of most recent or planned exploration. However, unless very significant reserves are discovered these areas would have trouble topping the 75% of OCS oil and 90% of OCS natural gas which is now produced in the Gulf of Mexico.

Exploration and production of offshore petroleum is a costly and time consuming process. The preponderance of petroleum exploration to date has occurred in less than 600 feet of water. Within this water depth the rigs necessary to drill exploratory wells cost between $25,000 and $60,000 dollars per day to operate. Add to this expense the cost of leasing the area from the federal government. (2.3 million dollars per 5693 acre tract was the average in the South Atlantic), the fact that less than 10% of the wells produce marketable quantities of oil and gas, and the time between exploration and production (about five years), and you see why offshore energy resources are expensive. The total expense is even more inflated as exploration moves to deeper areas of the ocean.

Exploration, production and the logistics of accomplishing each are not the end of the problems of offshore hydrocarbon development. If a significant reserve is discovered a permanent platform is erected and numerous wells are drilled within the field. Through the technology of directional drilling, wells can now be drilled laterally about 1 mile. This assures the tapping of many of the pockets and folds in the earth which trap oil and gas. The numerous wells optimize the flow of petroleum to the surface, but water or natural gas often must be injected into the oil saturated rock to force the oil out. Even with the injection of water or gas, the normal recovery of petroleum from a reserve is only 30-50%.

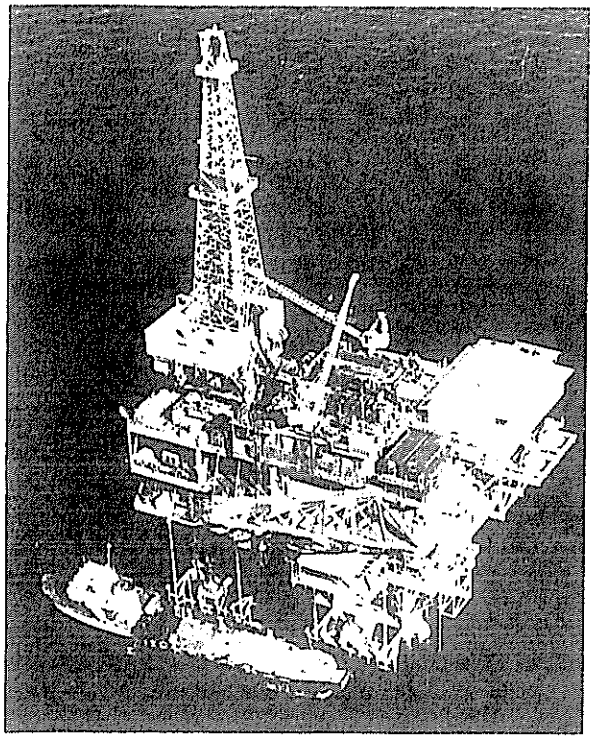
Although many problems associated with offshore energy opeations remain, technology has moved ahead. This progress has led the exploration for petroleum to areas of ocean floor covered by up to 2000 feet of water. Such advances have opened areas such as Georgia's Outer Continental Shelf and Blake Plateau (from the shelf edge eastward) to exploration.

The first leasing of OCS lands in the South Atlantic OCS for petroleum development occured in 1978. Another sale will occur in 1981 and the Blake Plateau will be leased in 1984. The 1978 sale yielded the leasing of 43 tracts at a total cost of $100,743,433. Most of the 43, five-year leases were granted in areas directly off the Georgia coast.

Petroleum development off the Georgia coast will soon become a reality. The Georgia DNR, Coastal Resources Division, has been working with the Federal Department of the Interior to ensure environmentally safe development of these offshore areas. The Department of the Interior conducts an Environmental Studies Program to aid the states in the decision making process related to

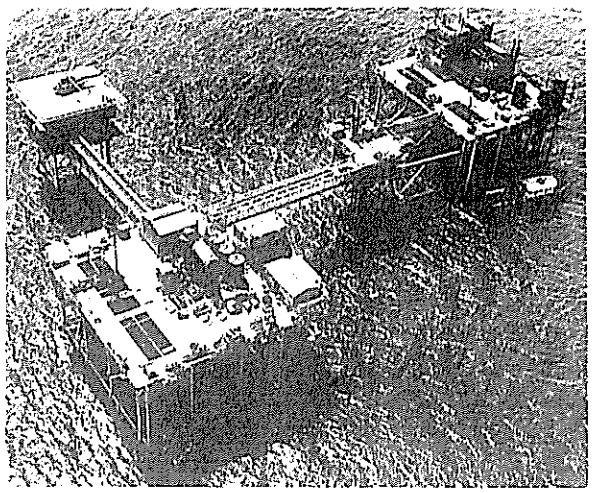
petroleum development. The DNR has been very active in this program to ensure sufficient data collection and synthesis occurs before development.

DNR personnel are also involved directly with the oil industry. Last week, a group of Coastal Resources Division and local government representatives visited the Exxon USA company for a field trip in the Gulf off Louisiana which provided on the spot inspection of a typical drilling and production rig. The two platforms were located off the coast of Louisiana and were in comparable water depths to those encountered in the South Atlantic OCS.



Exxon USA's South Pass Block drilling platform situated in 400 feet of water.

The first platform is pictured in figure 1. This platform was erected in 1978. There are presently two wells in production and a third is being drilled. Once the oil company decides a sufficient number of wells have been drilled the drilling derrick will be removed and additional production equipment will be added to the platform. The drilling operation was cleaner than one might expect and the number of safety devices and valves to control an unexpected pressure surge ("blowout") were impressive. Although blowouts are not extinct, the cinema's portrayal of oil and gas gushing from a well is not likely with present technology.



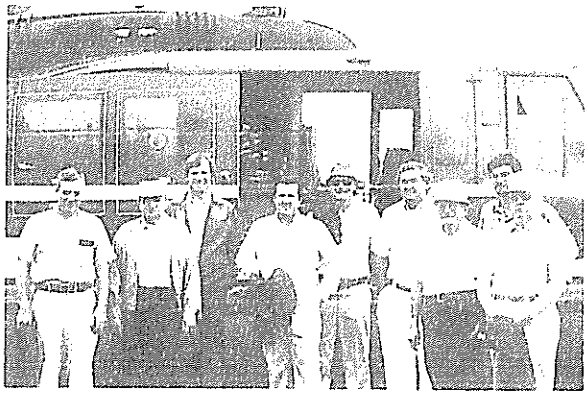
Exxon USA's West Delta Block production rig.

The second platform visited was a production platform (figure 2). This particular platform services some 152 wells by providing the pumping station necesary to transport the crude oil and natural gas to shore via pipeline. The crews which run these platforms live, eat and work on the platform for seven days at a time. Safety valves on each well are numerous and at every level and corner of the platforms are emergency shut-off switches which would stop all petroleum flow to the surface. A significant positive impact of these offshore platforms is exemplified in figure 3 which depicts a common scene of a party fishing boat moored to a platform. The platforms act as artificial reefs and fishing is very good in these areas.

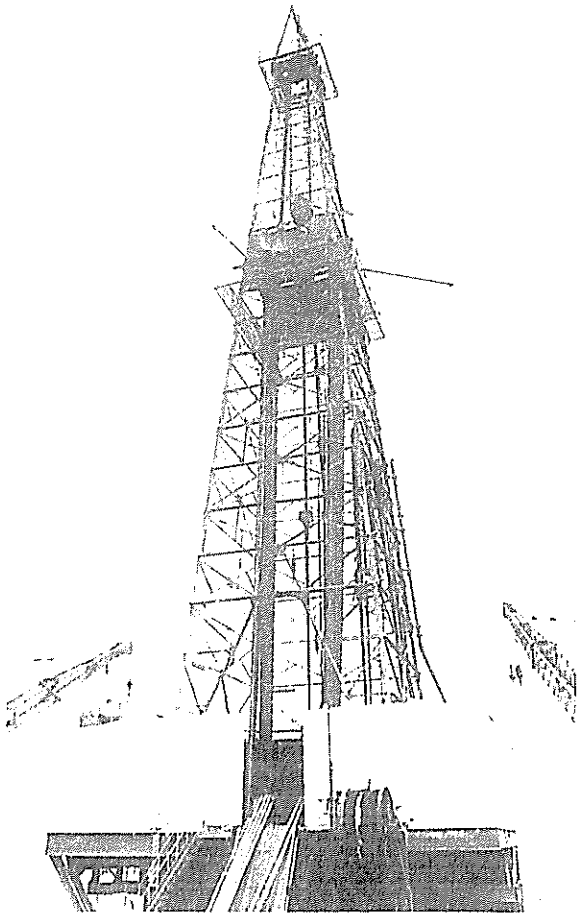
Safety and preservation of environmental quality is important to DNR and the oil industry. From the 20,000 wells already drilled in the offshore areas of the U.S. only 3 significant blowout and spills have occurred. The Santa Barbara, California spill in 1969 was to the oil industry as the Three Mile Island incident will be to the nuclear power industry. A flood of manditory government safety regulations were imposed. The environmental safety record of offshore oil operations has been good but both federal and state agencies are striving to make oil spills a thing of the past.

The GA DNR is taking an active role in the orderly and environmentally safe development of the ocean floor off our coast. As individuals

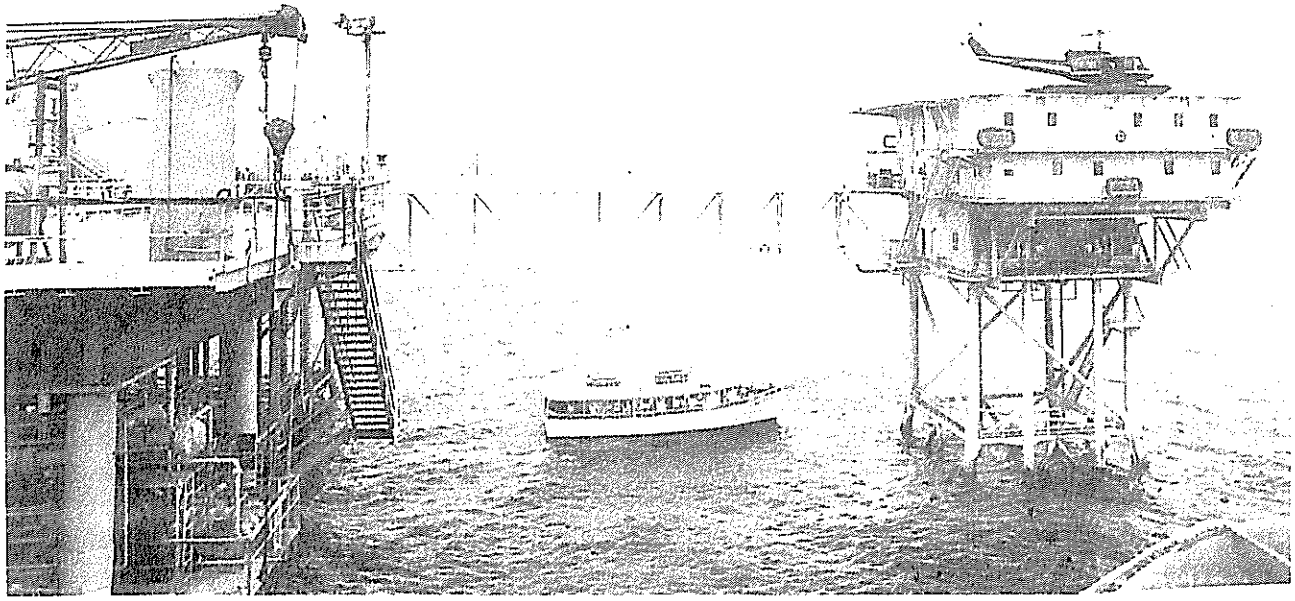
within the department become increasing knowledgable of the offshore environment and the technology necessary to tap our precious petroleum reserves, we can expect rational state decisions which will expedite oil and gas production and at the same time preserve Georgia's offshore live bottom fishing areas and onshore coastal environment.



Coastal Georgia representatives recently visited the offshore oil platforms in the Gulf of Mexico to check on safety and environmental regulations. From left to right: Mike Hardisky, DNR; Steve Osvald, U.S. Army Corps of Engineers; Dick Lindly, Exxon USA; Dewey Benefield, Georgia Coastal Management Board; Peter Smith, Brunswick-Glynn County Chamber of Commerce; Ed Stelle, Joint Planning Commission; H. J. Friedman, Coastal Highway District; Steve Olsson, DNR; and Dan Grant, DNR.



Driling derrick mounted on an offshore platform. This derrick will be replaced by production equipment if energy is discovered.



A party fishing boat moored to an offshore oil platform.

First Offshore Drilling Scheduled

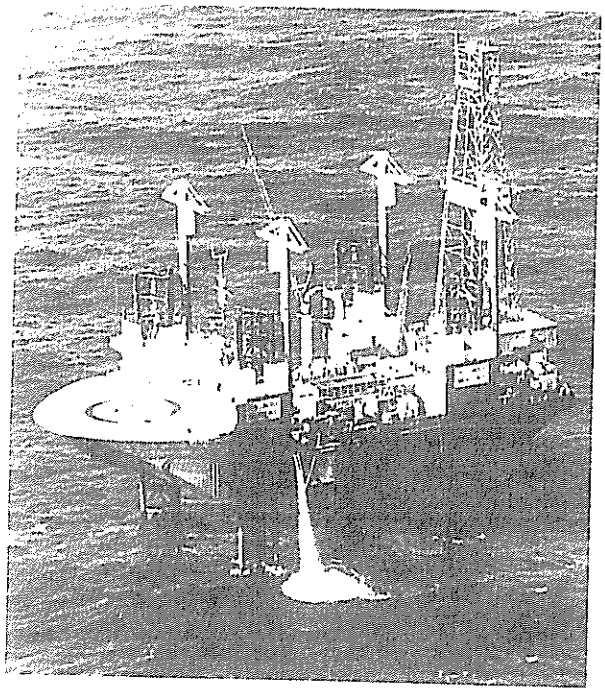
by Bill Morehead

Tenneco apparently will be the first company to drill for oil off the coast of Georgia. George Jackson, Director of Tenneco's office of public affairs in Houston, says the rig OFFSHORE MERCURY (see the January-February issue of Coastlines Georgia) should arrive from the North Sea sometime around May 19th.

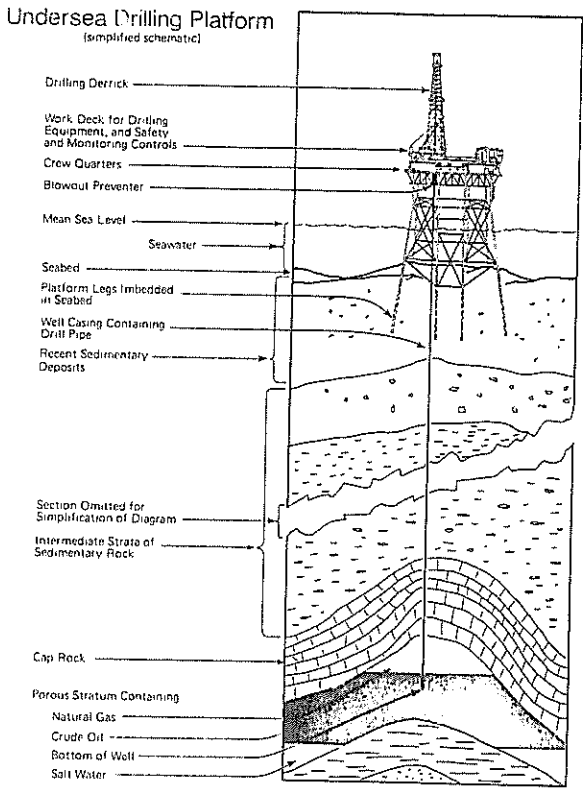
Jackson says it will take a day or two to get the OFFSHORE MERCURY ready for drilling. The first area to be drilled is known as Jacksonville Block 208, some 60 miles due east of Brunswick and 90 miles southeast of Savannah.

Block 208 is in 110 feet of water, but this water depth should pose no problem for the MERCURY, since it has been drilling in deeper water in the North Sea ever since it was built in Scotland.

Jackson says Tenneco has the option to drill another hole using MERCURY after it finishes with Block 208, but says the company



OFFSHORE MERCURY will be the first rig to drill for hydrocarbons off the coast of Georgia. Tenneco contracted for the rig to spud Jacksonville 208.



Courtesy of
the American Petroleum Institute

hasn't decided yet whether to release the rig to Getty Oil Company to drill its first well after Block 208 is completed. "Frankly, a lot depends on what we find in Block 208," Jackson said.

Tenneco estimates the hole spudded at Block 208 to go 11,000 feet deep and further estimates drilling time on the site to be from 45-60 days. According to Jackson, the company plans to spend up to $500,000 for casing on the hole and $35,000-$40,000 per day on contract services during the drilling.

Tenneco paid $9.4 million dollars for Block 208 at the March, 1978 lease sale in Savannah. "We wouldn't be there at all if the area didn't look a little bit promising," Jackson added.

If you would like to receive Coastlines Georgia regularly, write the editor, DNR, 1200 Glynn Ave., Brunswick, GA 31520

Sportfish Tagging Program

by Bill Morehead

Inshore Georgia saltwater sportfishermen are not only pulling in trout, flounder and channel bass this spring, but occasionally they haul aboard a one, five or ten dollar bill. They don't really haul the money aboard, but exchange yellow, spaghetti-like tags to DNR biologists for currency.

DNR coastal biologists are tagging the fish hoping to find answers to basic questions. Where do sea trout go? How fast does a channel bass grow? Do flounder remain in the same general locality or do they migrate, and if so, how far and how fast?

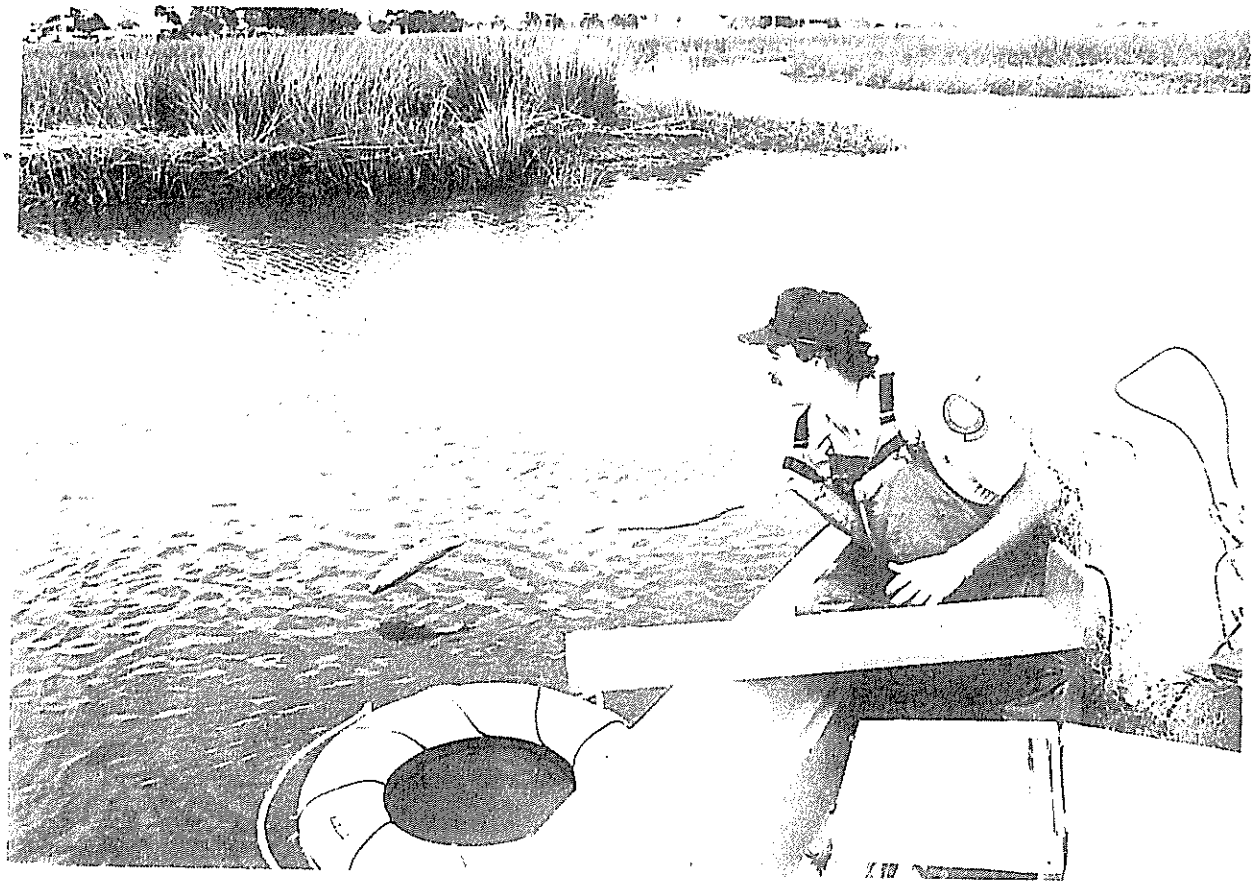
Answers to these and other questions can put to rest many of the uncertainties of inshore saltwater sportfish. "You'd be surprised at how little is known of the life histories of many saltwater inshore species," said Jim Music, the DNR biologist managing the tagging project.

Music said the program, funded through the Dingell-Johnson federal act, is scheduled to last four years. "By the first of June we should have 1,000 fish tagged in coastal waters," Music said.

Fishermen who catch a tagged fish should return both the tag and fish, if possible, to the Brunswick DNR offices at 1200 Glynn Ave., or call (912) 264-7330.

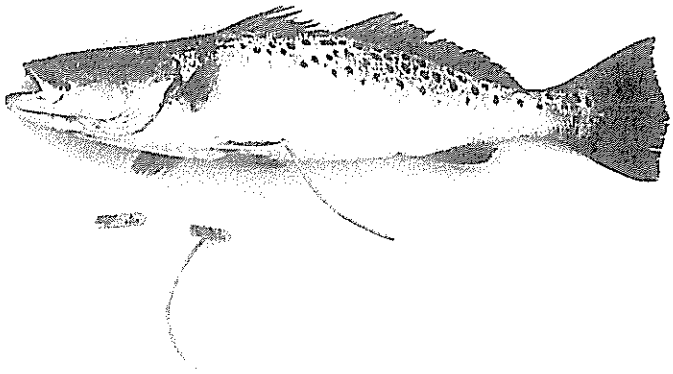
Biologist Tony Reisinger (right) and David Herrin, Assistant, check their gear prior to a fish tagging expedition.

After laying out the monofilament gill net, Reisinger and Herrin hoist it aboard. Trout and other fish are caught in the net and released, after tagging, unharmed.



After tagging the trout, in which the internal tag is inserted into the body cavity, Reisinger notes the fish's measurements and releases it.

Reisinger untangles a trout from the net.



The internal tag contains all the necessary information for fishermen to return the tag to DNR. The yellow, spaghetti-like streamer does not interfere with the fish's normal actions.

SEERS, Not SEARS

SEERS is not a catalog, but the Southeastern Estuarine Research Society, one of five affiliates of the parent organization, the Estuarine Research Federation (ERF). Founded some six years ago, SEERS consists of estuarine scientists and managers from North Carolina, South Carolina, Georgia and Florida. The membership of over 300, meets twice a year along the coast to discuss recent advances in estuarine science and technology.

At the 11th semi-annual meeting, recently hosted by Jacksonville University, several DNR staff presented papers. DNR Coastal Zone Management section chief, Rick Cothran, presented a poster session on "Coastal Georgia Management: providing assistance in the decision making process." Coastal educational specialist Jenny Phillips presented a talk on "Fine Arts in the Wetlands"; administrative assistant Steve Olsson's talk was on "The Young Adult Conservation Corps: Utilizing Youth Potential in Research" and gave everyone an idea of how the YACC program can benefit coastal science and technology. Mike Hardisky, chief of the Data Management and Special Projections section of DNR's Coastal Resources Division, discussed a timely topic, "Offshore Petroleum Development in the South Atlantic -- A preview of what to expect." Also, CRD's Director, Bob Reimold, presented a paper on "Resource Management Legislation: The Link Between the Coastal Technocrat and the Coastal Bureaucrat -- A Networking Process."

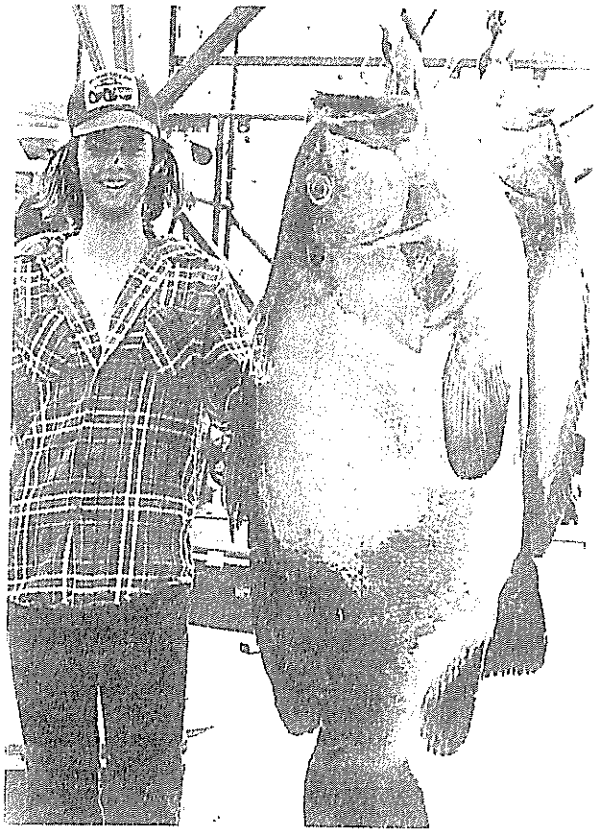
Reimold, president-elect of SEERS, is also the vice president and program chairman of the Estuarine Research Federation. ERF will hold its fifth international biennial meeting, a symposium on ESTUARINE PERSPECTIVES, on October 7-12 this year at Jekyll Island, Georgia.

This upcoming ERF international symposium will be one of the largest gatherings of scientists, managers and planners who are experts in estuaries. More information on this symposium will appear in future issues of COASTLINES GEORGIA. For additional schedules of events, etc., contact Dr. Robert J. Reimold, 1200 Glynn Ave., Brunswick, GA 31520.

To lend credence to the upbeat shrimp outlook, DNR biologists caught these fine white roe shrimp in Camden County in late April.

BULLETIN!

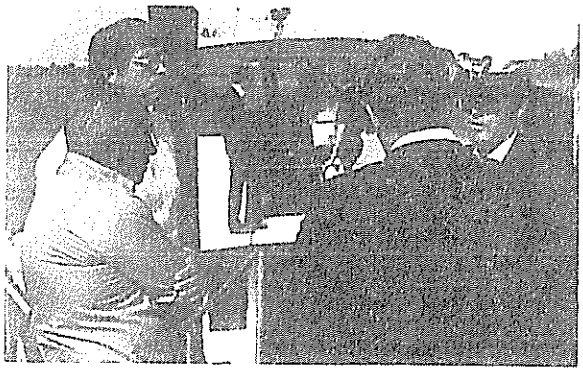
Coastal Georgia has begun to see fresh shrimp in the seafood markets again with the arrival of Spring. Shrimp boats in the southermost coastal counties of Georgia are landing an average of 1 to 4 boxes of white roe shrimp a day and have been since last couple of weeks in April. The predominant count sizes are 21/25's and 26/30's. McIntosh County boats are shrimping three or more miles offshore of St. Simons and Jekyll Islands, as are Glynn County boats. Camden County boats are shrimping three or more miles offshore of Cumberland and Amelia Islands. Shrimpers and biologists look for a better shrimp season than last year's and it looks like it's off to a good start.



Fishing is indeed picking up. Last March, Michael Duncan of St. Simons encountered this 133 pound Warsaw Grouper off the snapper banks and brought him in. It is a new state record for the species.

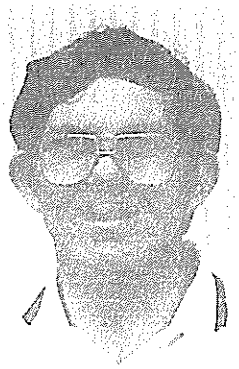
Now that shrimping is picking up, shrimpers should be on the lookout for tagged shrimp. DNR biologist, Bob Palmer, is shown here awarding Ken McKinney of Brunswick $25 for turning in a tagged shrimp. There are plenty more tagged shrimp in the waters.

David Herrin, technician in the sportfishing tagging project, holds a 10 lb. sea trout taken out of Christmas Creek on Cumberland Island. The trout, which would have beaten the state record by 8 ounces, did not qualify because it was taken with a gill net by a state employee.



Working toward a close-knit search and rescue program for coastal Georgia, members of the Coastal Resources Division (from left to right: Pard Andreu, Captain of the COBIA, and Perry Jones, operations coordinator) meet with U.S. Coast Guard and civil defense personnel to discuss coordinated operations. Their efforts paid off in April as two boats in distress in Sapelo Sound were found and surviving personnel rescued in short order.

People . . .



Tom Sills is the new YACC leader for Coastal Resources. Tom has a B.A. degree and, after his YACC year, wants to go into environmental law.

Tim Hightower, YACC Networker, shown with the trophy he won for most valuable defensive player in the Marsh Bowl, held last March in Brunswick between the Brunswick Jaycees and the law enforcement associations of Glynn County. The game was tied 26-26.

Steve Olsson, hired last October as the YACC leader, was recently appointed administrative assistant to Dr. Robert Reimold. Olsson, who has a B.S. degree in environmental health, is an example of the success of the YACC program, wich seeks to employ young adults aged 16-23 until they can find permanent jobs.

Susan Shipman is the new biologist with Coastal Resources' offshore finfish project. Susan is finishing her masters degree in marine science at the University of North Carolina at Chapel Hill.

Water Laboratory

The Environmental Protection Division maintains a Water Laboratory at its office in Brunswick, Georgia. This laboratory, operated by Environmental Scientist E. Merrill Tindall, is responsible for a number of water quality analysis programs. The primary program is the analysis of samples from sewage treatment facilities to determine if the pollutants being discharged are within the levels allowed by the facilities' National Pollution Discharge Elimination System Permit. These samples are collected by EPD Environmental Specialists during their inspections of sewage treatment plants, and the results are used as the bases for recommendations and enforcement actions. This program also includes analysis of water samples taken during complaint investigations and such emergency situations as fish kills, and chemical or oil spills. The laboratory presently handles samples for the Southwestern and Middle Georgia Regional EPD offices, as well as the Southeastern Regional EPD office.

Samples are also analyzed at the Water Laboratory for the Coastal Seawater Monitoring Program. These samples are collected by Brunswick Junior College personnel under the auspices of the EPD Water Quality Support Program. These samples are tested for such indicators of pollution as coliform bacteria and biochemical oxygen demand, as well as six other indicators of the quality of the water.

Approximately 30 sea water samples per week also are examined in cooperation with the Shellfish Sanitation Program headed by Tony Reisinger of the Coastal Resources Division. These samples are analyzed for the presence of coliform bacteria, and the results are used to determine the suitability of shellfish areas for commercial harvesting.

Besides these major programs, the laboratory is equipped to analyze drinking water supplies for bacterial contamination during disasters or emergencies.

The results of the testing programs are validated by an on-going quality control program. In addition, annual audit samples provided by EPA are analyzed to check the accuracy of the equipment and procedures used in this laboratory.

Merrill Tindall is in charge of the Brunswick water quality laboratory for the Einvironmental Protection Division.

Shellfish Sanitation Conference

A comprehensive shellfish sanitation conference will be held at the Coastal Resources Division office in Brunswick. The conference, scheduled to run from May 21 to May 25, is designed to bolster Georgia's shellfish sanitation monitoring program.

Topics to be covered include sanitary surveys, shellfish plant sanitation, shoreline reconnaisance, patrol activities and hydrographic surveys. Aside from Coastal Resources and other Georgia DNR personnel, speakers include professionals from state regulatory agencies in the south, state and federal marine research laboratories and federal regulatory agencies.

REMEMBER!
Ga. Department of Natural Resources
Emergency Search and Rescue Number
1-800-342-6630

Air Monitoring Station

An ambient air monitoring station has been recently added to the Department of Natural Resources office complex in Brunswick, Georgia. Housed in a small trailer along U.S. Highway 17, the station is the most recent addition to a state-wide air sampling network established by the Environmental Protection Agency, and Georgia's Environmental Protection Division. This station contains a sulfur dioxide monitor and a Hi-vol filter, and is manned by Lawrence Scoville, an Environmental Specialist with EPD in Brunswick.

The sulfur dioxide monitor continously detects emissions from the burning of fossil fuels. This machine supplements the periodic readings privided by two other sulfur dioxide monitors in Glynn County. The Hi-vol filters measures the levels of chemical dusts and naturally occurring dusts in the atmosphere. This device, like three others spread throughout Glynn County, collects samples for 24 hours every six days.

The samples from these stations are forwarded to the Environmental Protection Division in Atlanta for analysis, and the results of these analyses are published in an annual summary produced by the EPD Air Quality Branch. These results are also used by the Environmental Protection Agency in correlation with meterological factors to compute ambient pollutant levels as part of a nation-wide survey.

Shoreline Assistance Act Is Now A Law

Governor George Busbee signed the Shoreline Assistance Act into law on 27 April. The act, designed to aid coastal citizens by protecting the beach and primary dune areas from construction activities, also sets standards for construction in shoreline areas subject to the high energy of extrordinary winds, storms and tides.

Dr. Fred Marland, whose Coastal Protection Section of Coastal Resources will oversee the provisions of the act, said formal hearings on the rules and regulations of the Shoreline Assistance Law will probably be held in late May. He said, in the interim, he and Dr. John Bozeman are assisting architects and builders with permitting procedures and building standards. Following the hearings, Marland said his office will begin proving assistance to citizens involved in the shoreline activities under the bill.

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

BULK RATE
U.S. POSTAGE
PAID
PERMIT NO. 400
BRUNSWICK, GA.
31520