

Knowing the Landscape:

Successful Initiatives for Improved Coastal Resource Management in Georgia

**Fred Hay
Georgia Coastal Management Program**

Coastal Resources Division

Board of Natural Resources

Commissioner Lonice Barrett

CRD Director Susan Shipman

Public Relations / Accounting /
Computer Support Services

Marine Fisheries Section
Spud Woodward

Ecological Services Section

Recreational
Fisheries
Program

Outer
Continental
Shelf
Program

Commercial
Fisheries
Program

Interjurisdictional
Fisheries
Management

Administration

Operations

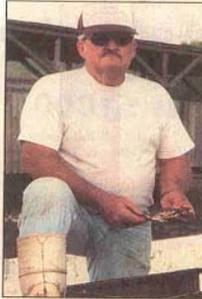
Habitat
Management
Program

Environmental
Health
Program

Coastal
Management
Program

Drought blamed for light crab hauls

By Jeff Whitten
Staff Writer



CRABBER — Joe Allen shows off one of the crab's he caught last year.

As Georgia's drought continues into at least its third year it may be hitting a portion of the population you might not expect.

Those who make their livings from the sea.

Some reduce blame to the 1,000+ McCart day now "Las This yet McC suffer, a Natural Last crab ca well be million Music.

commercial fisheries.

"The drought is causing adverse conditions in the seafood industry," he said. "I don't know if the drought is the only factor, but it's a major factor."

A factor because without rain the saltwater in crab fisheries is saltier, perhaps too salty for the crabs to successfully

that too many soft shelled "peeler" crabs are being caught. "I can shoot holes in those theories," he said.

Yet Jeffers, like McCartney and Music, said the lack of rain has left the water saltier than it usually is.

"The salinity in the water is way

Crabbers look for help after bad harvest

Associated Press

BRUNSWICK, Ga. — Georgia crabbers are turning to state regulators after the worst season on record.

Last year, the state crab harvest was less than half the average catch of 8.3 million pounds. Crabbing problems in recent years have been blamed on drought, but now some crabbers say overfishing is a problem, too.

Among them is George Thomas, a Eulonia-based crabber who has been in the business for 50 years. He said a temporary ban on collecting peeler crabs — mostly young females ready to mate —

would help the industry.

"I've seen it bad before, but not get bad and stay bad," Mr. Thomas told *The Brunswick News*. "If I said we need to close the peeler crab season, I'd be shot before tomorrow, but we need to do something."

The Georgia Department of Natural Resources tracks crab landings and reports they've gotten consistently lower during the past three years.

With less water from the drought comes higher salinity levels, and that is said to drive crabs farther inland, away from crabbers' traps.

Saltier water also can cause a parasitic one-cell organism called hematodinium to plague crabs.

A 10-member committee met with DNR officials Thursday to discuss the problem.

"The crabbers asked us to put together options that can be taken for when crab numbers are depressed," said Doug Haymans, a liaison between the commercial crabbers and the DNR Coastal Resources Division.

"We're in the exploratory phase. Nothing may come of it."

The DNR last week proposed to crabbers that they quit harvesting sponge crabs, the egg-laden females. The crabbers voted 5-3 against the idea. The DNR could propose the limit to the state without the crabbers' agreement.

opposed state regulation on how many crabs may be trapped. But member officials Thursday problem. The two net several times

s asked us to put that can be taken numbers are Doug Haymans, the commercial the DNR Coastal on. "We're in the ie. Nothing may

week proposed to y quit harvesting egg-laden females.

Disease killing area blue crabs

Illness has crabbers worried about the future of their industry and the environment.

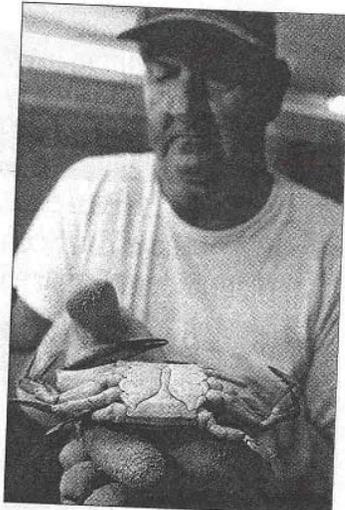
By Gail Krueger
Savannah Morning News

Some Georgia blue crabs have been diagnosed with a fatal blood disease that leaves them weak and lethargic — prone to die before they ever make it to market.

The disease is called hematodinium and is caused by a parasite. Environmental factors such as higher-than-normal salinity and warm weather seem to trigger the parasite's activity in infecting the crabs.

Crab retailers and wholesalers such as James Holland and Robert DeWitt can spot an infected crab in a heartbeat. They scoop them out of their bins, saying they just don't look right, don't act right. Yet the disease leaves no external signs; instead it makes the crab's blood milky in color and leaves its meat bitter-tasting.

Crabbers are worried — dead crabs don't sell. The disease has no known impact on humans who may eat the infected crabs, how-



Steve Bleson/Savannah Morning News

James Holland holds up a crab with hematodinium, characterized by a dull, pink shell.

See CRABS, Page 12A

Crab season falls to bottom

By JACQUELINE BERLIN
News Staff Writer

Though not over yet, this year is already tying last for the state's worst crabbing season on record.

"For the first eight months of both years we were 68 percent below the 10-year average," said Jim Music, a biologist for the Coastal Resources Division of the Georgia Department of Natural Resources. "I expect this year to finish much like 1999."

The drought covering both seasons is the culprit in the decline, he said.

Less water causes higher salinity levels, which in turn is believed to have led crabs to move farther inland from where crabbers set their traps.

Higher salinity is also associated with a proliferation of a parasitic one-celled organism, hematodinium, plaguing the crabs.

"A dinoflagellate gets in the crabs' blood and basically it suffocates them," Music said. "When you catch crabs in your traps that have this disease they may be alive but they die before you can get them to market."

Suffering the most are the state's 159 licensed crabbers, already besieged by high fuel prices and their second year of paltry catches.

For Daryle Brinson, a Sterling man who has been a crabber for 27 years, the year has been so poor that he took three weeks off during what is usually his busiest time of the year, at the end of July and August.

"It's been real bad. I had traps all the way down in the sound and up in the river and I wasn't catching anything," he said. "Finally, I took my stuff out and came home for awhile. It didn't seem feasible to work."



Joan Parker/The Brunswick News

The crab season has been so poor for Daryle Brinson of Sterling that at one point he took a three-week vacation at the height of it.

Last year 3.9 million pounds of blue crabs, which make up more than 90 percent of the catch in Georgia, were landed, compared to a several year average of 7 million pounds. The economic impact is a dockside value half that of the \$4 million average.

The crabbing industry is the second most important crustacean industry in the state,

though it falls far behind the \$20 million shrimp industry.

Crabbers report their catches are improving now that there is increased rainfall on the coast. However, because the total was so low going into September, Music said this year will almost certainly be as bad overall, or only marginally better, than 1999.

7/30/87 SAVANNAH AM NEWS

Georgia crabbers are looking for answers after experiencing worst harvest on record

Some crabbers propose limits on crabbing

THE CRAB HARVEST

The

opposed state regulation on how many crabs may be trapped. But member officials Thursday problem. The two net several times

s asked us to put that can be taken numbers are Doug Haymans, the commercial the DNR Coastal on. "We're in the ie. Nothing may

week proposed to y quit harvesting egg-laden females.

Sorry
we HAVE
NO CRAB



CATCH ME
LATER

© 2004
S. J. S. J.

Operations Management

Water Quality Monitoring

- **Pfiesteria**
- **Nutrients**
- **Coastal Assessment**
- **Beaches**
- **Shellfish**



Habitat Management

Regulatory Permitting and Compliance

- **Commercial and Recreational Docks**
- **Bulkheads**
- **Beachfront Development**
- **Federal Consistency**

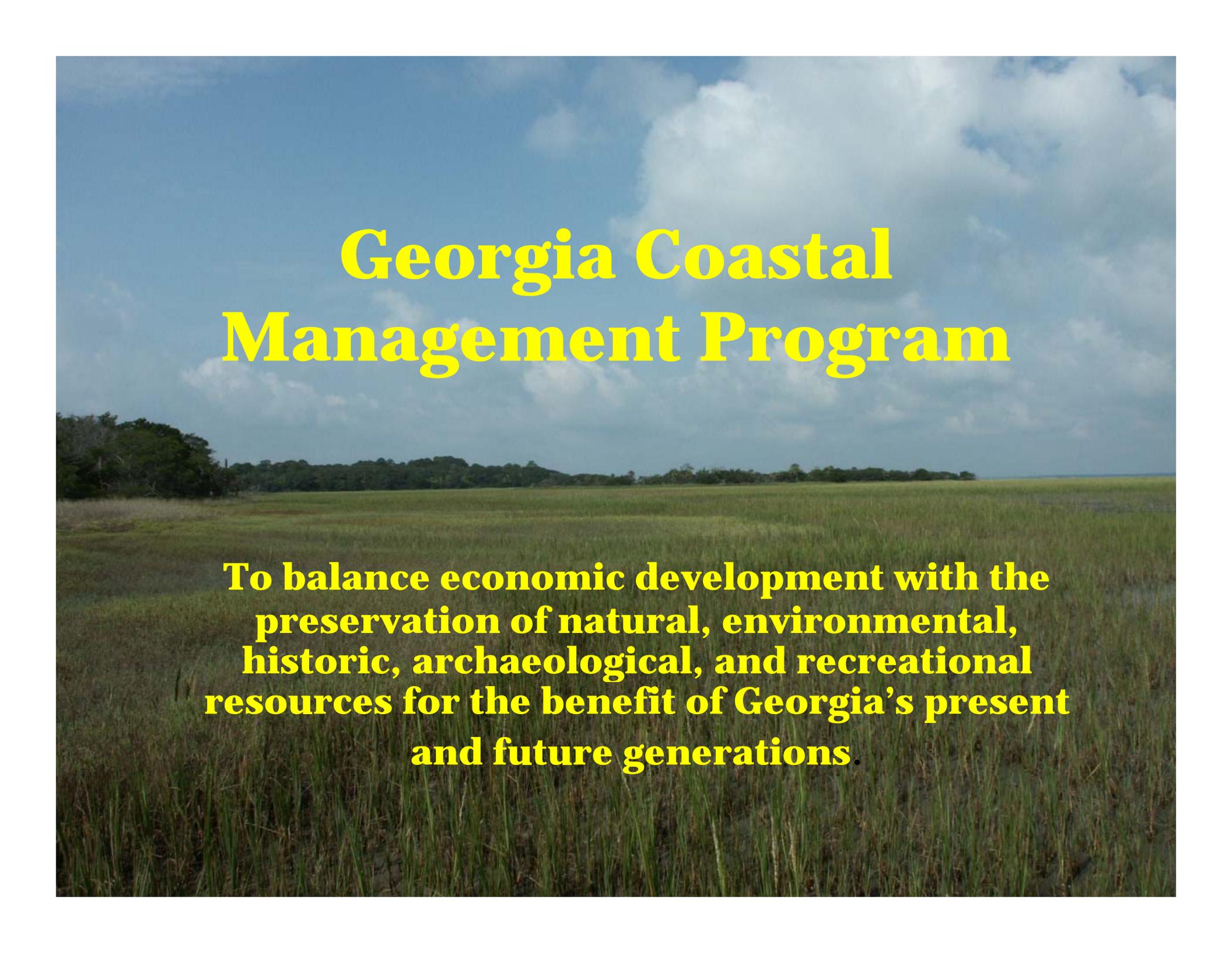


Coastal Marshlands Protection Act



Shore Protection Act

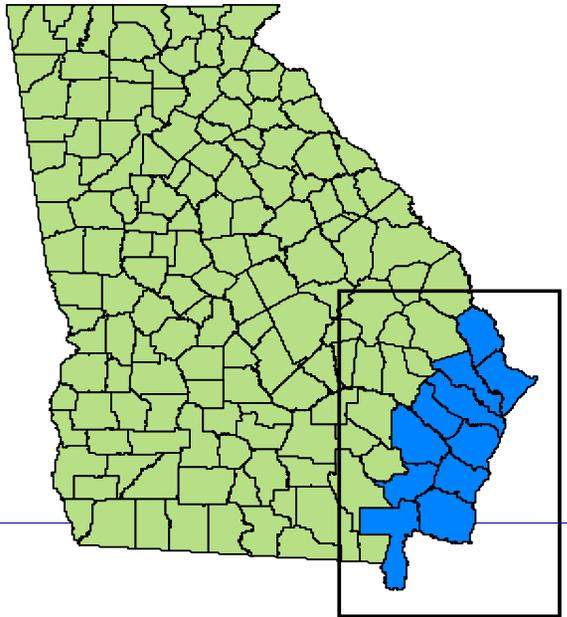




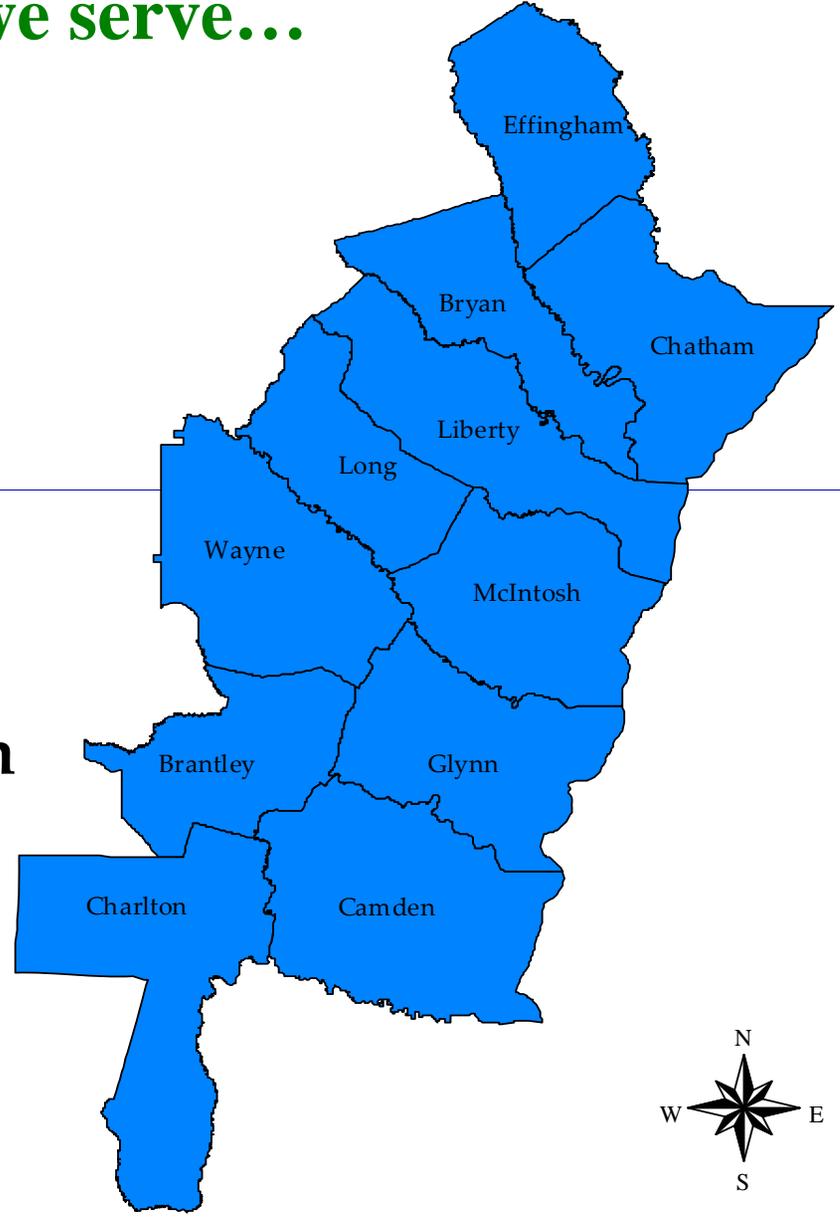
Georgia Coastal Management Program

To balance economic development with the preservation of natural, environmental, historic, archaeological, and recreational resources for the benefit of Georgia's present and future generations.

Who we serve...



Georgia
Coastal Management Program
Area



Intent of the Coastal Management Program

- **Provide conflict resolution mechanism**
- **Provide educational programs for awareness and understanding**
- **Promote information links to stakeholders and the citizenry**
- **Address cumulative impacts**
- **Enhance enforcement and monitoring of existing regulations**
- **Enhance public access**
- **Provide simplified and efficient permitting process, with adequate and early review of significant projects**



Coastal Incentive Grant Projects

Soil and Water Conservation District

Coastal Erosion and Sediment Control Inspector

Board of Regents of University System of GA

GIS Water Quality Database

The UGA Research Foundation, Inc.

Public Perceptions Concerning Water Use and Planning along the Georgia Coast

Ribotyping to determine the host origin of fecal contamination in Georgia's Coastal Waters

Chatham County

Director of Comprehensive Planning

City of Port Wentworth

Port Wentworth Natural Resources Management Plan

Coastal Georgia RDC

Stormwater Management Regulations Project

City of Richmond Hill

Richmond Hill Wetlands Education Center

Richmond Hill Wetlands Boardwalk

City of Midway

Cay Creek Wetland Education Center

City of Tybee Island

Tybee Island Ecological Specialist

City of Darien

Darien Waterfront Project

Brantley County Board of Commissioners

Satilla River Recreational and Historic Resource Survey

Coastal Incentive Grants Municipal Waterfront Restorations

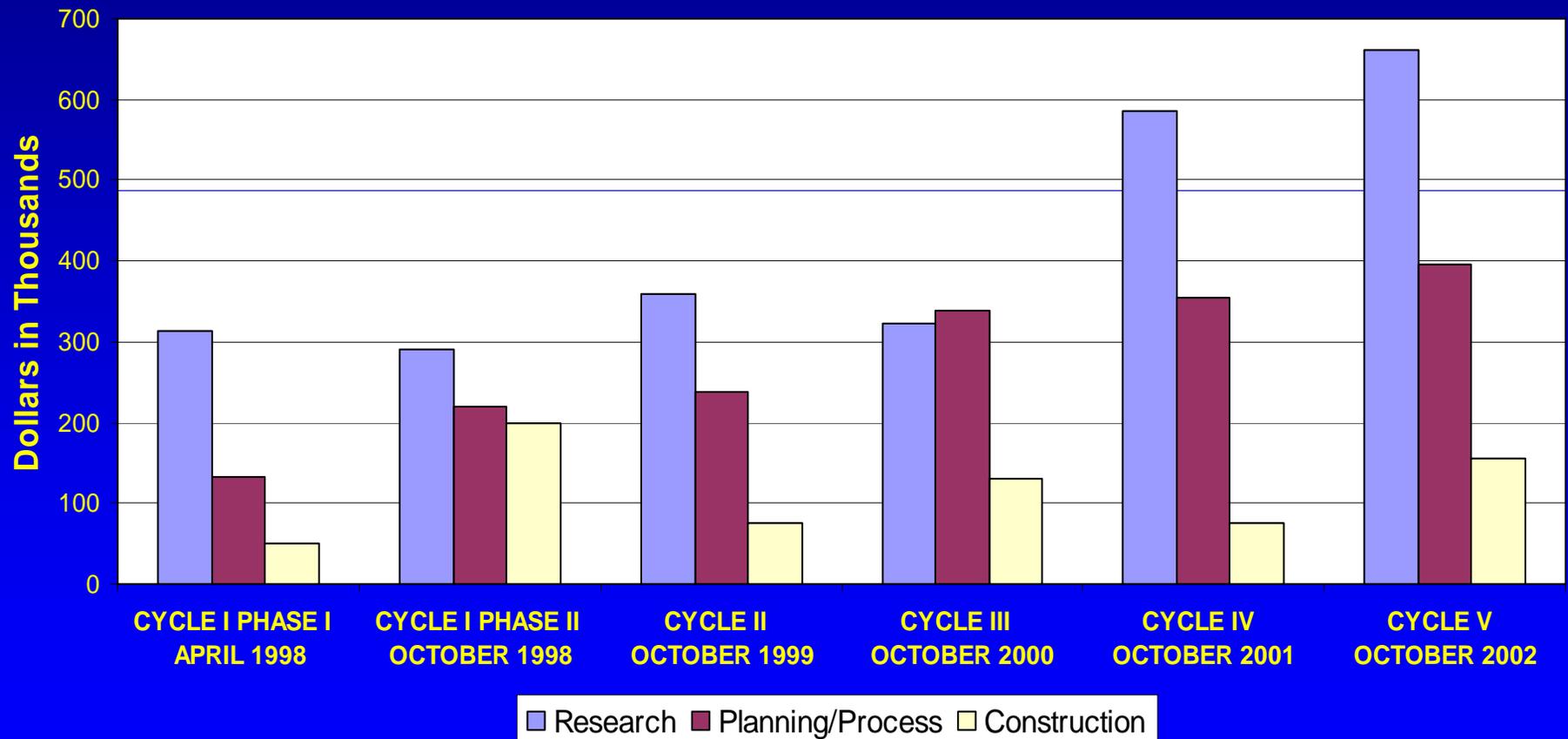


City of Darien

- Construction and Access
- Research and Monitoring
- Planning



CIG Funding by Project Type



Role of Technical Assistants

- Facilitate conflicts with state, federal, or even other local agencies;
- Help local governments understand permitting processes and state environmental regulations;
- Research funding sources for local and watershed-type projects; and
- Host workshops or training sessions according to local and regional needs.

Coastal Management

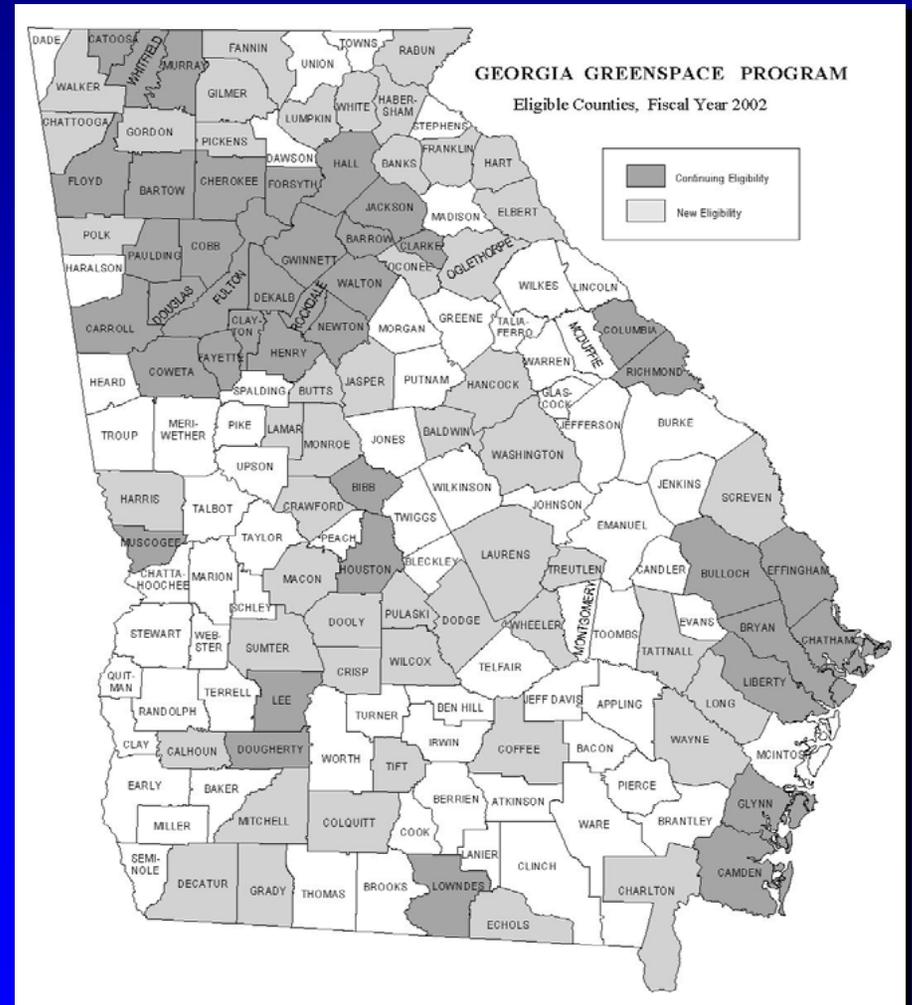
Local Government Assistance

Helping local governments to implement sound growth management strategies to ensure the maintenance of coastal ecological integrity while providing for quality economic development.



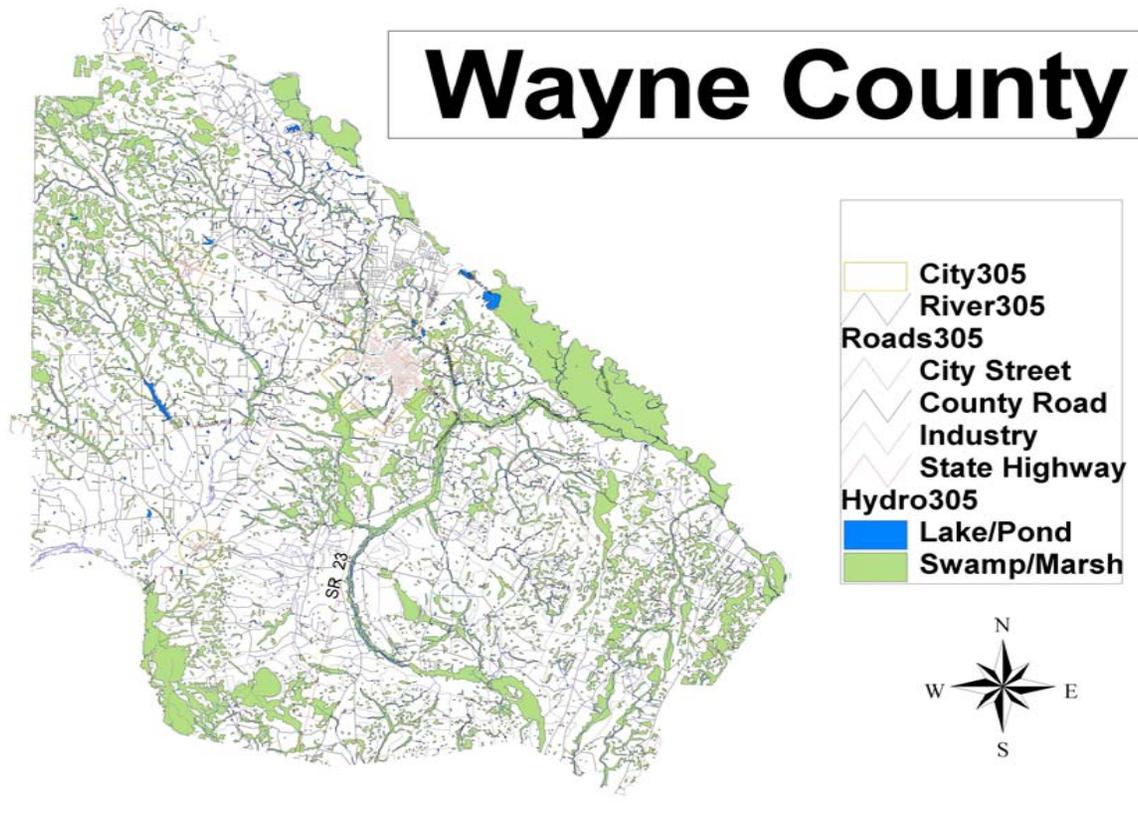
Coastal Management Local Government Assistance

Coastal Management Program staff assist eligible counties in applying for Community Greenspace funds through the Department of Natural Resources

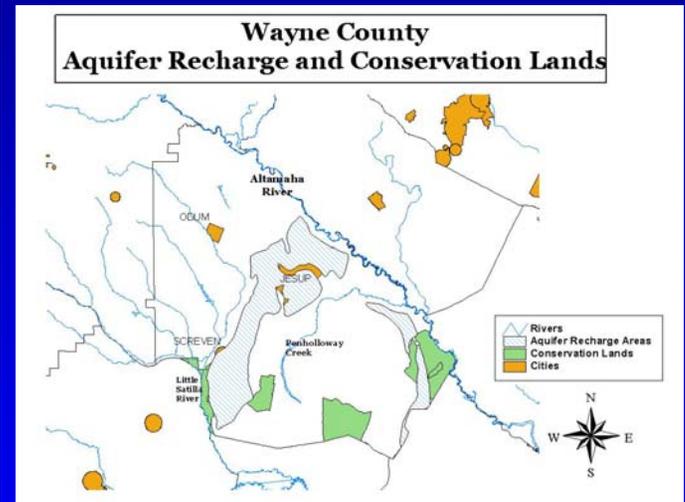


Coastal Management Local Government Assistance

Wayne County



Wayne County Aquifer Recharge and Conservation Lands

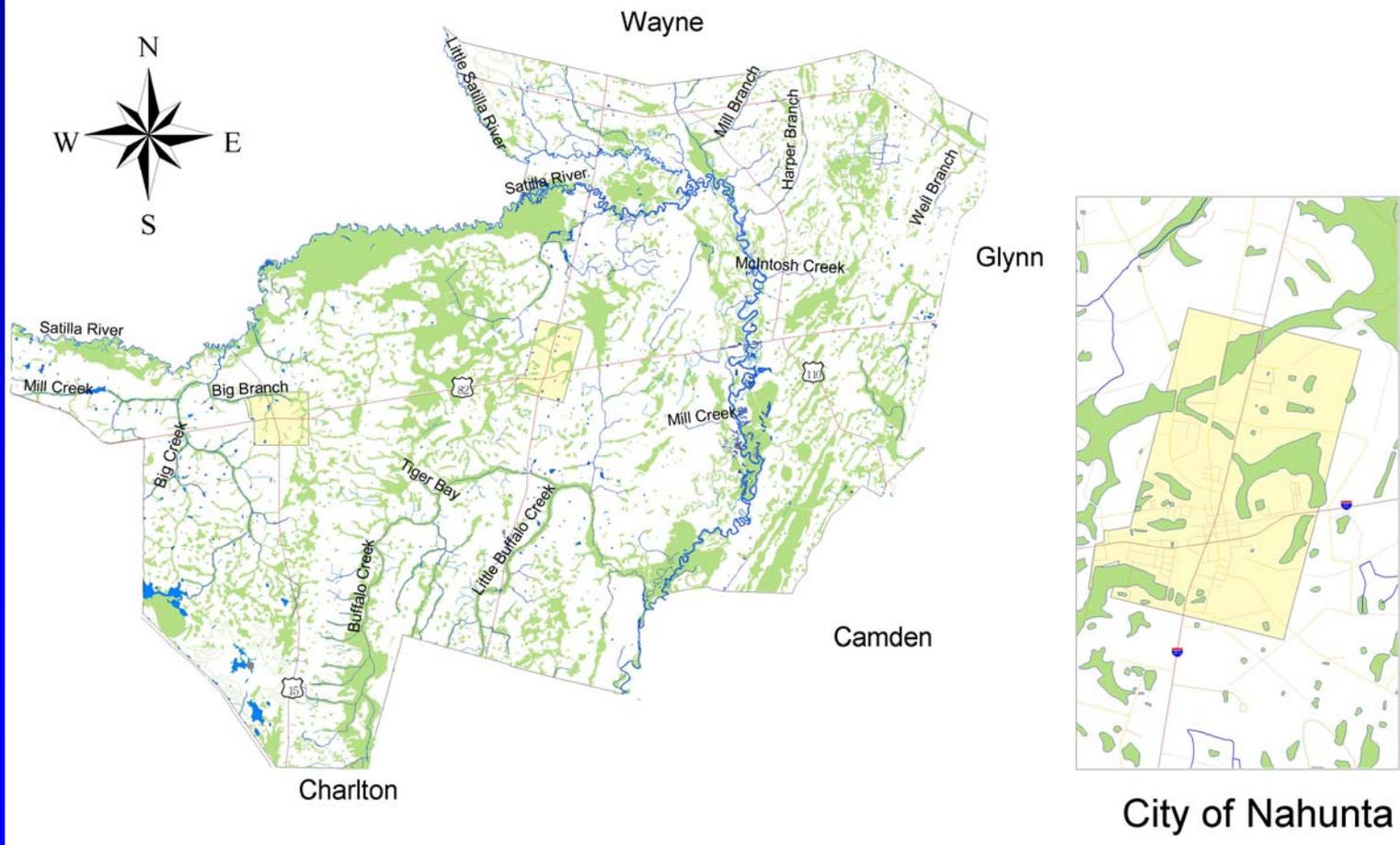


Technical assistants work with Wayne County to determine Greenspace lands.

Coastal Management

Local Government Technical Assistance

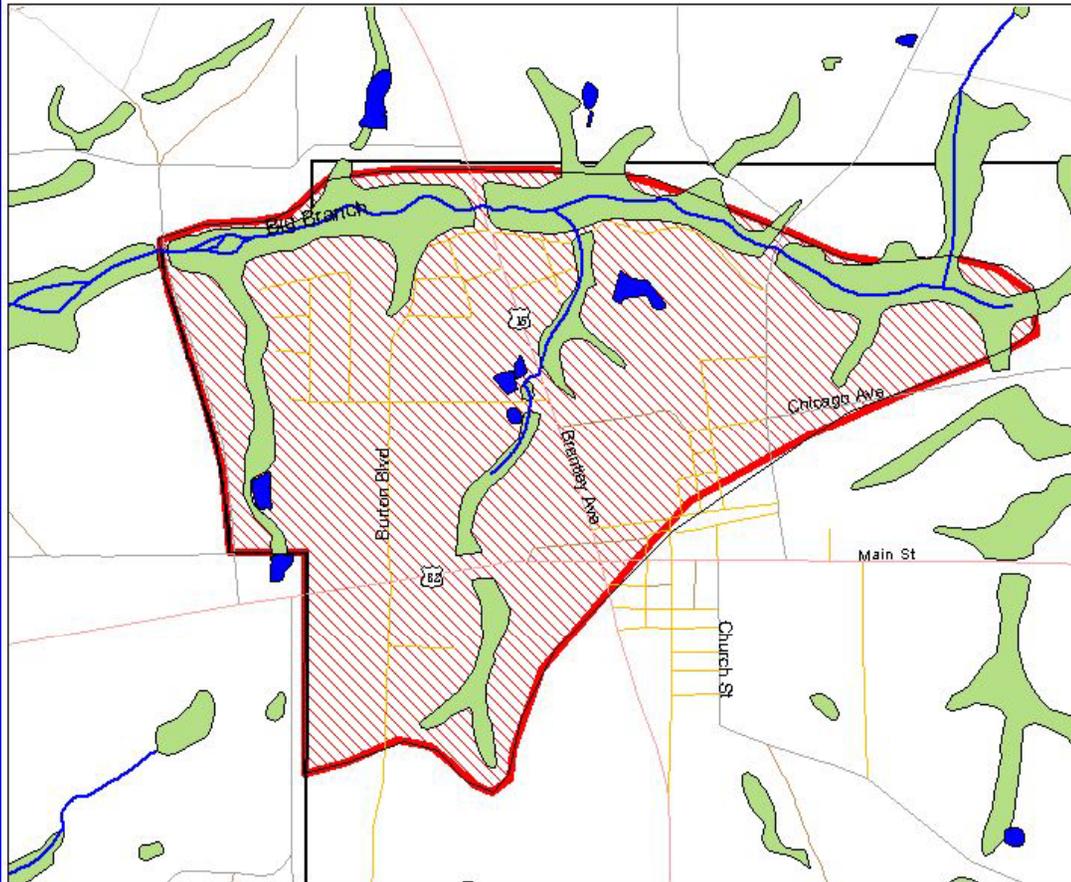
Brantley County



Technical assistants work with counties in creating land use maps.

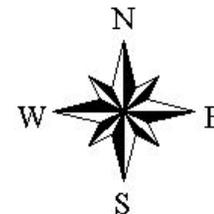
Local Government Technical Assistance

Aquifer Recharge Areas, City of Hoboken



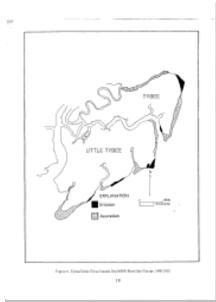
This map is provided for discussion and planning only. Field verification is necessary to determine accuracy.

-  Rivers
- Hydrography**
-  Lake/Pond
-  Stream/River
-  Swamp/Marsh
-  Aquifer Recharge Area



Coastal Management

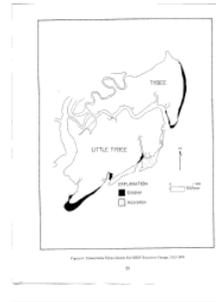
Local Government Education and Outreach



1866-1913



1866-1974



1913-1925



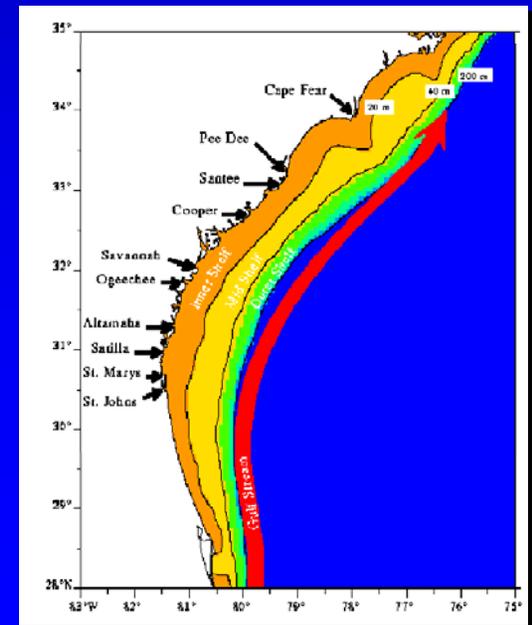
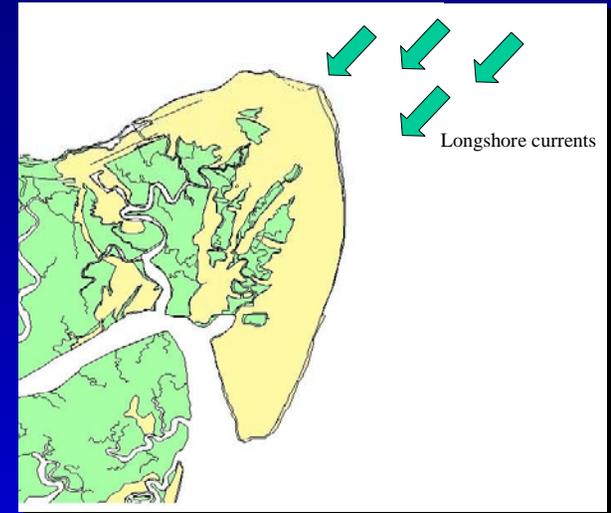
1978



March 1965



1990



Technical assistants speak to city officials on Barrier Island Dynamics



Make the Connection:

Economic Development and Environmental Awareness in Coastal Georgia

A one-day workshop presented by McIntosh SEED and sponsored by the Sapelo Island National Estuarine Research Reserve to promote conscious use of natural resources and the promise of economic development in Coastal Georgia.

TOPICS OF DISCUSSION

Coastal Economic Development Trends • Conscious Use of Natural Resources • Conservation Planning • History of Economic Development in Coastal Georgia • Industry Trends • Marine Aquaculture • Nature-Based Tourism • Rural Economic Development • Sustainable Building • Quality Growth • Value of Coastal Resources

SPEAKERS WILL INCLUDE

Sarah Bobrow-Williams, Southern Rural Development Initiative;
Laurie Fowler, University of Georgia Institute of Ecology;
Elizabeth Judge, South Carolina Sea Grant Consortium;
Jan McKinnon, Coastal Zone Management;
Buddy Sullivan, Sapelo Island National Estuarine Research Reserve;
Local Businesspeople; and **others**.

October 23, 2001

10am – 3pm

**Sapelo Island Visitor's Center
Meridian, Georgia**

Catered lunch will be provided

Registration is FREE and space is limited. Register now!

Call McIntosh SEED at 912-437-7821 or email McIntosh SEED
Environmental Task Force Chair, Ann Mason, at amason@darientel.net.

A HEALTHY ECONOMY IS DEPENDENT ON A HEALTHY ENVIRONMENT

CMP staff take part in Decision Maker's workshop

- Coastal History of Economic Development
- Tourism Trends in Coastal Georgia
- Adding Value to Local Resources
- Development without Degradation
- *Loving our Coast to Death:*
Conservation for the Future
- Finfish Aquaculture



Aims to encourage nature based tourism and environmentally sound economic development along the Altamaha River

Valuing our Resources

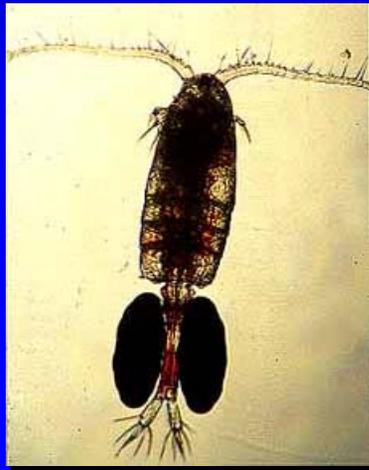
*Education through on-site
Programming for elected officials*



Historic Preservation



Endangered and Threatened Species



Ecological Conservation

Coastal Management

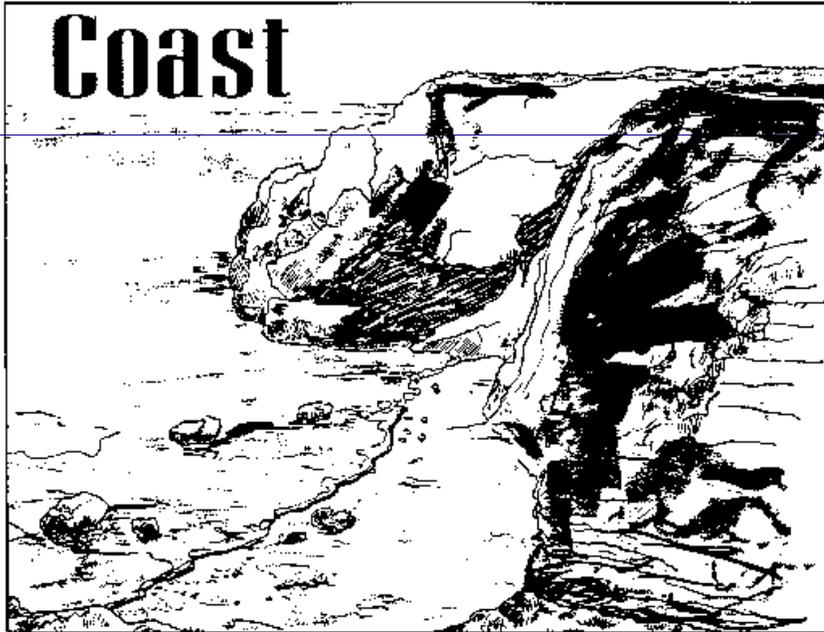
Education and Outreach - Coastal Ark



This educational component to the Coastal Management Program is a mobile training platform equipped with GIS tools, mapping capabilities and other decision making tools



Science, Policy, and the Coast



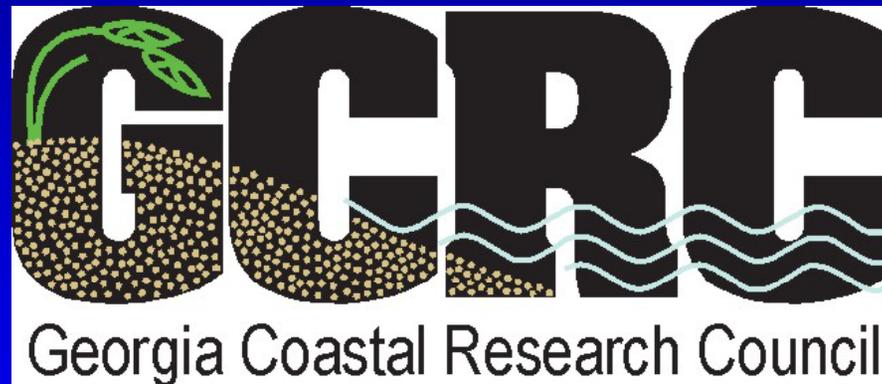
Improving Decisionmaking

NATIONAL RESEARCH COUNCIL

Finding:

Coastal scientists and policymakers do not interact sufficiently to ensure that decisions and policies related to coastal areas are based adequately on science.

Georgia Coastal Research Council



www.marsci.uga.edu/coastalcouncil/

Georgia Coastal Research Council - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://www.marsci.uga.edu/coastalcouncil/>

Site Index

GCRC Organization

- [Coastal Georgia Colloquium](#)
- [GCRC Staff](#)
- [Affiliated Scientists and Managers](#)
- [Meetings](#)

GCRC Focus Areas

- [Freshwater Inflow](#)
- [Marsh Dieback](#)
- [Marsh Hammocks](#)

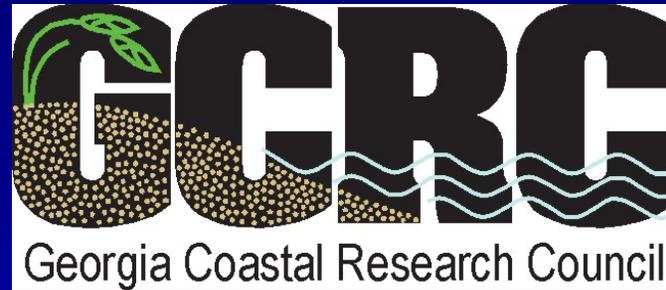
[Georgia Coastal Research](#)

Summaries of scientific research projects on the Georgia coast.

[Links](#)



Document: Done



Goals:

- To provide mechanisms for **improved scientific exchange** between coastal scientists and decision makers.
- To promote the incorporation of **best-available scientific information** into State and local resource management.

Approach

Encourage informal interactions

Biennial meetings (Coastal Georgia Colloquium)

(<http://www.marsci.uga.edu/coastalcouncil>)

Address specific issues (e.g. freshwater withdrawal, marsh hammocks, marsh die-back)

White papers

Develop management tools (e.g. SqueezeBox)

Organize study groups

Establish a formal partnership between academics & managers

Regular meetings with CRD

Issues Identified at Colloquium

Fisheries

- Habitat delineation
- Stock assessments
- Blue crab decline

Cumulative impacts

- Docks
- Marsh hammocks

Flow

- Instream flow
- Groundwater/surface water interface

Emerging issues

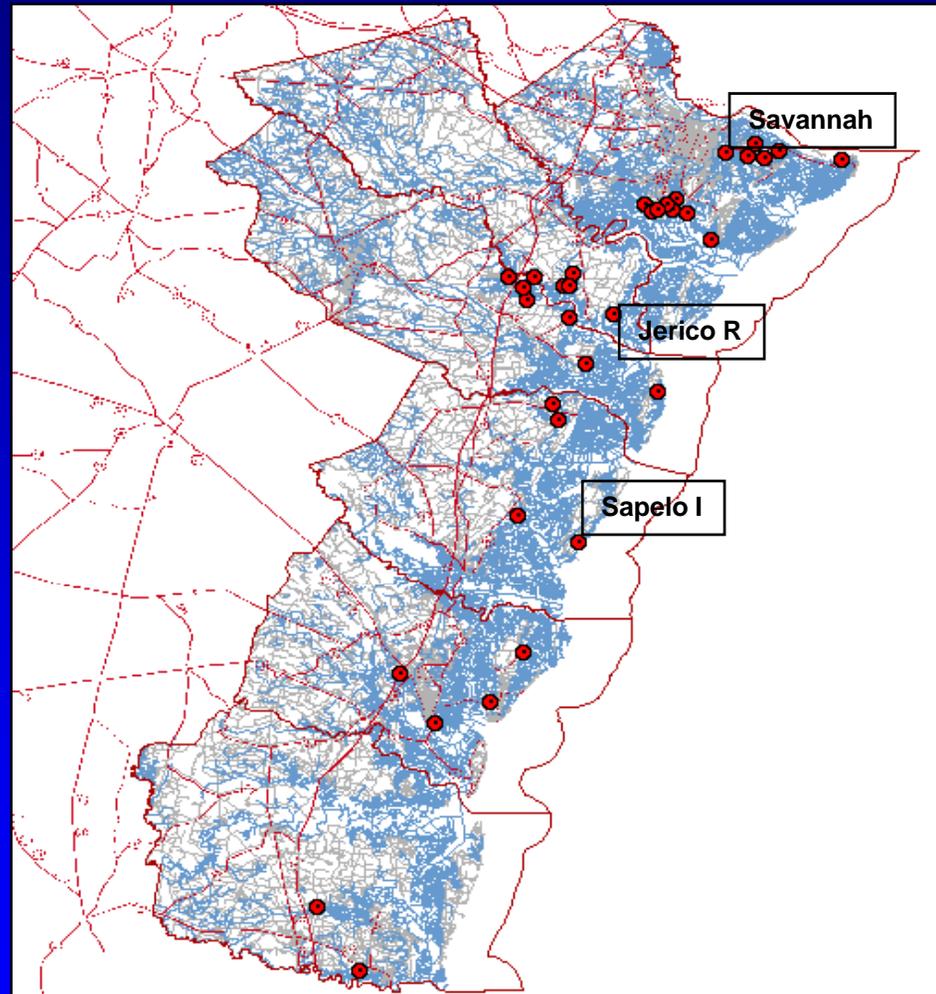
- Salt marsh dieback

Saltmarsh Dieback



Saltmarsh Dieback

- **40 Sites**
- **1000 acres**



Jerico River



Liberty County



Juncus die-off



DEAD MARSH “BIOBLAST”

October 2002



GCE-LTER and DNR CRD

Ongoing work

- Aerial surveys (CRD)
- Remote sensing (NMFS)
- Standardized monitoring
- Continuing research efforts
 - Transplant experiments
 - Georgia Sea Grant funding opportunity
 - Marsh restoration proposal

