

Listening to & Learning from Local Ecological Knowledge:

A Social Science Pilot Study in McIntosh County (MC) Georgia

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The views presented here are those of the interview participants and researcher and do not represent the opinions of the University of Georgia or its agents, Georgia Sea Grant, North Carolina Sea Grant or the Sapelo Island National Estuarine Research Reserve.



Background

The Georgia Coastal Ecosystem (GCE) is 1 of 11 Maps and Locals (MALS) LTER sites nationwide. MALS research combines spatial analysis and social science to study socio-ecological change near LTER sites. Spatial analysis of McIntosh County was completed in 2011. (Runfola and Pontius)

Research Contributions

- Compile resident's descriptions of land use, environmental change, and concerns about McIntosh County (MC)
- Connect GCE LTER research to local issues of importance
- Develop framework for collecting and integrating social science into LTER research

Research Questions

- How do long term residents of McIntosh County describe land use and environmental change over last 50 years?
- What concerns do residents have about McIntosh County?
- What environmental concerns do they express?
- What reasons do they give for environmental and land use changes they identify?

Participants

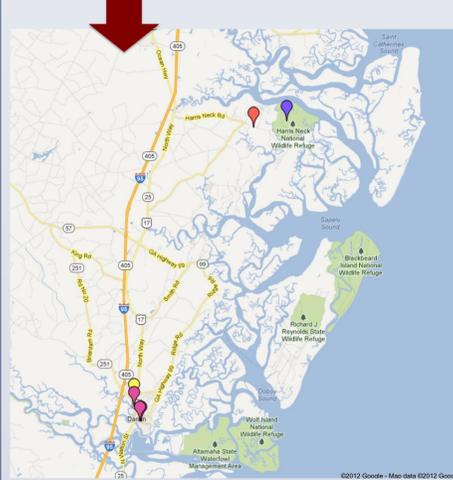
Total participants	19
Age range	30-90 years, Average 63
Female	5
Male	14
Years in MC	12-90, Average 52.7
Commercial fisher/shrimper/crabber	12
Extension agent for UGA MAREX	1
Former forester in MC	1
Member of Harris Neck Community Land Trust	5

Local Ecological Knowledge

- "Knowledge held by a specific group of people about their local ecosystem"
- Blend of experiential, practical and scientific knowledge
- Helps recognize and account for links between ecological and human social systems (Olsson and Folke 2001)

Methods

- Structured & Semi-Structured Interviews with follow up questions from 2011 spatial analysis study
- Residential history and land ownership maps



- * **Plot 1**- family land, owned, forced to leave 1942 (eminent domain)
- * **Plot 2**- settled after leaving plot 1, rented
- * **Plot 3**- current residence, rent
- * **Important places**- public schools

Harris Neck Community Land Trust

An organization of African American (Gullah) descendants of skilled farmers, fishers, hunters and business owners who have lived in McIntosh County since 1865. They aim to "preserve their unique culture" and "re-create a community" on land they once owned in the present day Harris Neck Wild Life Refuge. Their efforts to reclaim this land are controversial within the county, conservation circles, and institutions charged with establishing and maintaining protected public lands because of concerns about wildlife protection, tourism, and tensions over land use.



Findings

Family history and land ownership	# of participants
Have parents from MC	15
Have grandparents from MC	13
Own current house spot	15
Own other land in McIntosh County	8
Own family land- land acquired from family through inheritance or sale	10
Lived at only one residence in MC	3
Moved once within MC	5
Moved at least twice within MC	9
Lives in Glynn County, works in MC	2

Land ownership and location of residence is greatly influenced by family and intergenerational land transfer

6 participants included environmental issues when listing their greatest concerns about McIntosh County

Greatest Environmental Changes and Concerns

- Hardhead/Saltwater Catfish have virtually disappeared
- Sea turtle and shark populations have increased and both are abundant
- Black gill disease was first noticed about 10 years ago and causes periodic spikes in shrimp mortality
- Changes in salinity are impacting habitat, distribution, & health of blue crab and other marine organisms & long term monitoring using stationary sample points does not adequately reflect population size and distribution
- Swamps have been drained and wells, ponds, and freshets are drying up
- Swamps and live oak trees have been replaced with pine for the timber/pulp industry

"I don't want wildlife to take my place"
Members of the Harris Neck Land Trust say their greatest concern is that they regain land taken from them through eminent domain in 1942. They feel that wildlife is being privileged over their human rights.

Demographic and Land Use Change Identified by Long Term Residents

- Influx of northerners and part time residents
- Decline in shrimp and crab industries and conversion or abandonment of canning and processing plants
- Increase in building regulations along waterfront
- Inflation of property values
- Lack of jobs/industry
- Young people don't stay

Scientists Should Study Trawling in the Sounds

Many fishers have not seen evidence that occasional trawling causes damage in deep areas like Sapelo Sound. Some believe trawling "purged" and "flushed out" the sounds and now there is an abundance of bottom growth and the sounds are no longer "clean". They think it is possible that without trawling the sounds can "go sour" which may contribute to a decline in water quality and the health of shellfish and finfish populations.

These changes are attributed to timber companies, high upstream water use, and drought

"We used to hunt in swamps to kill deer and hogs. Now we hunt pine trees." ♦ "20 years ago there was nobody here. You could have lay out on the highway for an hour."

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References

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