

# National Wetlands Research Center

## Biological Resources Division Central Region



**Mission: The center develops and disseminates scientific information needed for understanding the ecology and values of our nation's wetlands and for managing and restoring wetland habitats and associated plant and animal communities.**

The National Wetlands Research Center (NWRC), located in Lafayette, Louisiana, is a 71,000 square foot facility on 20 acres of the University of Southwestern Louisiana's research park. It has saltwater and freshwater laboratories, greenhouses, created wetlands, conference facility, a library, and computer laboratories for graphics, training, data analysis, and processing satellite and mapped data.



Staff at the Center includes biologists, ecologists, geographers, statisticians, engineers, chemists, computer specialists, and information professionals.

NWRC maintains active partnerships with Federal and state agencies, universities, conservation organizations, and industries such as timber and oil and gas.

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For more information, please contact:

Or visit the Web site:  
<http://www.nwrc.usgs.gov>

# Core Capabilities and Project Offices

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## The Center's Core Capabilities

### Wetlands Ecology -

Researchers study causes and loss of threatened coastal ecosystems, and investigate how to stabilize, restore, and manage the coastal landscape. Inland grass beds and seagrass beds (the most valuable of fish nursery grounds, waterfowl foods, and beach stabilizers) are being diminished worldwide; barrier islands in the Gulf of Mexico will suffer if their seagrasses are lost. Coastal saltwater and freshwater marshes, particularly in Louisiana, have annual losses of 35-50 square miles. Coastal prairies in Texas and Louisiana have had dramatic losses with only about 1% of the original nine million acres remaining.



**Forested Ecology** - Most research focuses on forested wetlands, the most common type in the South. They include bottomland hardwood forests, cypress-tupelo swamps, and mangrove forests (these remaining forested wetlands account for more than a third of all wetlands in the contiguous 48 states). Investigations include studies on:



*functions* of southern forested wetlands; developing *computer models* to predict what will grow in the forest if flooding or other factors change; *reforestation and restoration*; *annual growth rings* of trees to assess the effects of ecological disturbances on forested wetlands.

**Spatial Analysis** - Natural resource managers and researchers need spatial data and the technology to analyze that data. The NWRC houses one of the largest geographic databases related to natural resources in the Southeast. Data bases include status and trends (1956-1990) of wetland, upland, and seagrass changes along the gulf coast; satellite images of landcover for the Southeast; contaminants for Atlantic and gulf coast estuaries; breeding birds and coastal restoration projects for Louisiana; and hydrology and vegetation for the lower Mississippi Valley. These data are used in conjunction with: *geographic information systems* for analysis of trends, natural resources inventories, and modeling; *remote sensing* research; *habitat mapping*

to represent ecological, biological, and other data derived from current and historical aerial photography, photointerpretation, and map transformation.

### NWRC Field Station and Project Offices

**Gulf Breeze Project Office**  
Gulf Breeze, FL 32561-5239  
904/934-9280

**Coastal Restoration Field Station**  
Baton Rouge, LA 70802-5364  
504/342-2077

**Nacogdoches Project Office**  
Nacogdoches, TX 75962  
361/985-6266

**Texas Gulf Coast Field Station**  
Corpus Christi, TX 78412-5503  
409-849-7771

**Project Office**  
Stennis Space Center, MS 39524-6000  
223/688-2717



