

CLIMATE ADAPTATION SCIENCE CENTERS

FLORIDA

Florida falls within the domain of the Southeast Climate Adaptation Science Center (SE CASC)



Southeast CASC Consortium Institutions

Host: North Carolina State University

Consortium:

Auburn University
Duke University
Savannah State University
United South & Eastern Tribes
University of Florida

University of Arkansas University of South Carolina University of Puerto Rice University of Tennessee University of Virgin Islands

OUR WORK IN FLORIDA



since **2010**

Key Science Topics

Wildlife & Plants
Forests
Freshwater
Wetlands
Sea-Level Rise & Coasts

PROJECT HIGHLIGHTS

The Gulf Coast's Migrating Mangroves

Coastal wetlands purify water, protect coastal communities from storms, store carbon, provide habitat for fish and wildlife, and offer opportunities for recreation and fishing. They are also vulnerable to changing climate conditions.

WHAT:

The Southeast CASC examined how changes in temperature and rainfall could alter coastal wetlands in Florida, Alabama, Mississippi, Louisiana, and Texas.

RESULTS:

Warmer winters will transform coastal wetlands in the Gulf of Mexico by 2100. Mangrove forests (comprised of trees) will expand northward and replace salt marshes (comprised of grasses). These shifts in vegetation could affect the ecological and economic services wetlands provide.

IMPACT:

Helps wetland managers in Florida and other Gulf of Mexico states plan for future changes in wetlands and prepare for the related impacts to fish, wildlife, and ecosystem services.





Integrating Sea Level Rise Scenarios into Everglades Restoration Planning

Everglades restoration efforts are likely to be impacted by climate induced sea level rise.

WHAT:

The Southeast CASC is working with multiple stakeholders to identify restoration questions that consider sea level rise, provide insight on choosing scenarios relevant to each project and methodology to incorporate sea level rise scenarios through ecological models.

RESULTS:

Incorporating sea level rise scenarios into Everglades restoration project planning processes will better determine whether projects will maintain or improve the Everglades' ecological integrity.

IMPACT:

Improve managers' ability to decide between competing restoration plans as Comprehensive Everglades Restoration Plan projects continue to be implemented across the landscape.