

# SOUTHEAST CLIMATE ADAPTATION SCIENCE CENTER

- We help to ensure that the wildlife, places, and cultural resources we value endure the climate changes ahead.
- We equip and empower local managers to craft their own adaptation strategies.
- We work with stakeholders to provide them with decision support tools.
- We use the best available science about climate change to achieve climate adaptation action.



E. SEEKAMP

## SE CASC by the NUMBERS

We cover  
**8** states and  
**2** U.S. territories –  
that's **21%**  
of the U.S. population

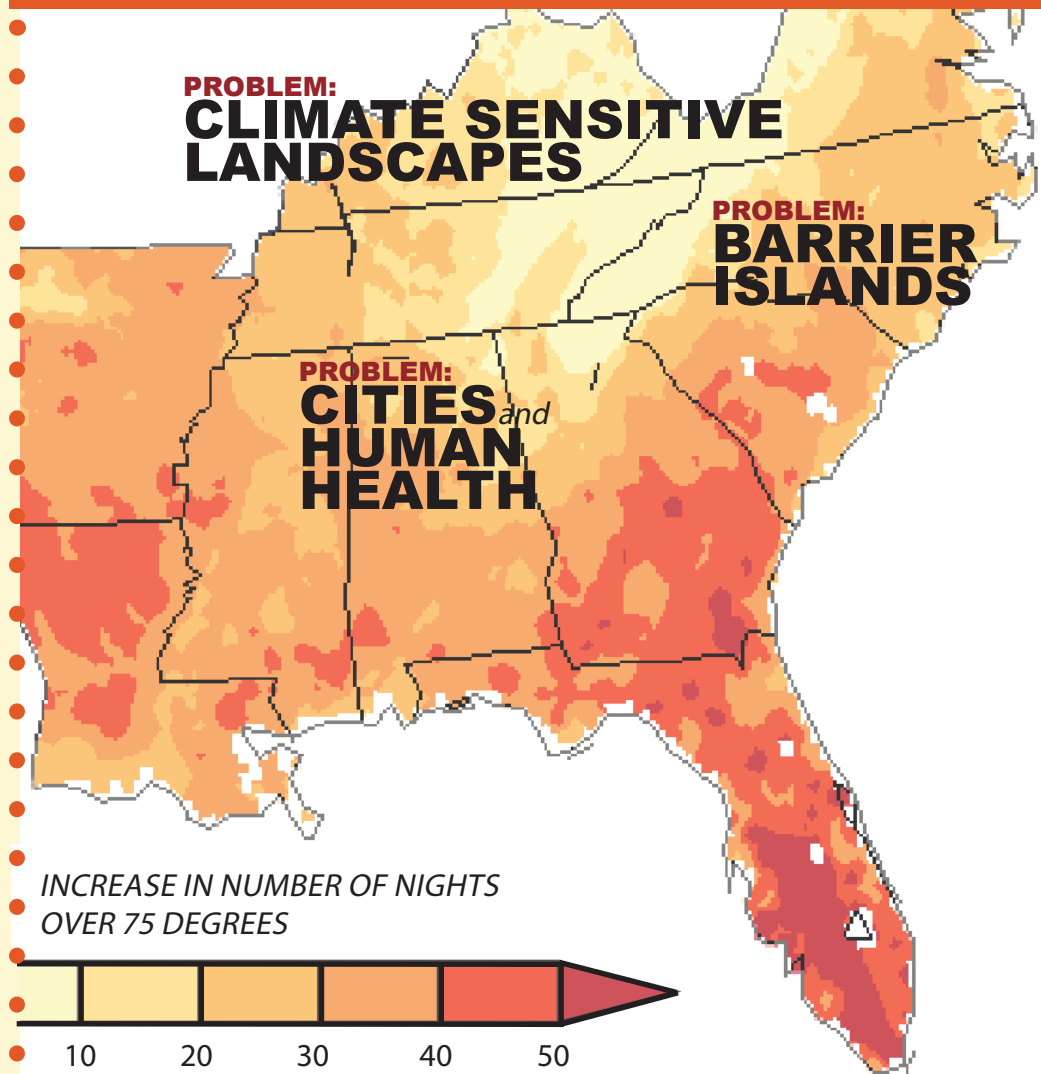
Since 2011,  
over **30**  
projects funded

**74**  
graduate students  
trained in climate  
and global change



[GLOBALCHANGE.NCSU.EDU/SECSC](http://GLOBALCHANGE.NCSU.EDU/SECSC)

## WE ARE GETTING WARMER



Source: National Climate Assessment

# CHALLENGES *for the* SOUTHEAST



## CLIMATE SENSITIVE LANDSCAPES

**PROBLEM:** The Southeast is home to some of the richest landscapes in the world. They are important from a biodiversity standpoint and also because they support significant eco-tourism. Long-term climate patterns may threaten the sustainability of these systems.

**SOLUTION:** Two recent SE CASC studies revealed new information about the vulnerability of these landscapes, so that managers can make informed decisions about how to manage them into the future.



## BARRIER ISLANDS

**PROBLEM:** Millions of cubic yards of sand are used to restore the physical integrity of barrier islands, but how should we proceed with repairing storm-related damage to maximize post-construction sustainability of the restoration effort?

**SOLUTION:** The SE CASC developed a cost-effective method to avoid wasteful project delays in the wake of storms.



## CITIES AND HUMAN HEALTH

**PROBLEM:** Cities are warming faster than surrounding areas. Tree canopy is essential for cooling cities, but pests are increasing with rising temperatures.

**SOLUTION:** The SE CASC is studying which urban trees will be most vulnerable to pests; other trees may be better for planting.

## TRAINING *the* NEXT GENERATION

**PROBLEM:** Climate change brings an increasing set of complex and inter-related problems. A well-trained workforce that uses multi-disciplinary approaches is needed to meet these challenges.

**SOLUTION:** SE CASC is training future scientists and resource managers through intensive interaction with state, federal, tribal, and NGO partners to implement real-world adaptation management. These graduates are prepared to meet these challenges.



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