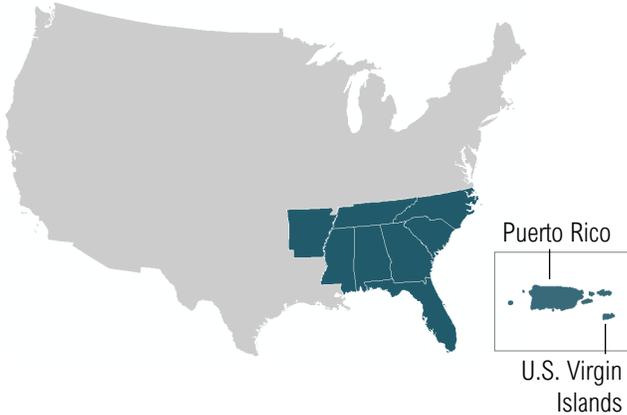


# TENNESSEE

Tennessee 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

University of South Carolina

Duke University

University of Tennessee

University of Florida

## OUR WORK IN TENNESSEE

**38+**  
Projects

since **2010**

## Key Science Topics



Wildlife



Plants



Forests



Freshwater



Science Tools for Managers

## ESTIMATING FUTURE WATER AVAILABILITY

*Estimates of current and future streamflow are critical for understanding how much water is available for humans and ecosystems. Some streams have gages taking detailed measurements, while others do not and rely on models to estimate flow. Managers in the Southeast need integrated information from both gages and models for a more complete picture of regional water availability.*

### WHAT:

The Southeast CASC developed a new method that incorporates ungaged streams into estimates of current and future streamflow across the Southeast, including in the Tennessee River Basin.

### RESULTS:

Using this method, researchers were able to include potential future changes in climate conditions and land use patterns to estimate future streamflow for the entire region.

### IMPACT:

Gives managers the information they need to plan for possible water availability futures and develop effective adaptive strategies that can address competing water needs.



## CLIMATE CHANGE & STATE WILDLIFE ACTION PLANS

*The Southeast is experiencing high rates of urbanization, land use change, and shifting climatic conditions. These changes present considerable near and long-term challenges to the health and sustainability of the region's fish and wildlife.*

### WHAT:

The Southeast CASC assessed how states addressed current and projected climate change in their 2015 state wildlife action plans (SWAPs), which serve as important resources to help states identify and protect species and their habitats.

### RESULTS:

Tennessee assessed the climate vulnerability of 189 species, and completed a spatial analysis of climate change vulnerability across terrestrial habitats to help inform land management efforts. The state was also one of five in the region to explicitly outline climate change adaptation goals in their plan.

### IMPACT:

Identifying how each state in the Southeast addresses climate change in their SWAPs enables the identification of opportunities for further action and potential areas for regional coordination.

