

# Carolinas Climate Connection

Carolinas Integrated Sciences & Assessments, a NOAA RISA Team  
Integrating Climate Science and Decision Making in the Carolinas



## Mark Your Calendars!

**Registration for the  
2018 Carolinas Climate Resilience  
Conference will open  
Monday, March 19.**

More information available here.

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## Getting to Know Your RISA

*Featured Team Member: Ellie Davis*

Ellie Davis is a CISA Research Assistant and 2nd year master's student in the USC Geography Department. Based in Columbia, Ellie assists the CoCoRaHS Condition Monitoring Project by updating and maintaining the [National Web Map](#), communicating with observers, and analyzing stakeholder feedback. Ellie's passion for decision-relevant, agricultural research led her to conduct her master's fieldwork in Hyde County, NC where she studied the impacts of soil salinization on coastal farmers using satellite remote sensing and stakeholder interviews.

Originally from Central Pennsylvania, Ellie moved to Washington, DC to complete her B.A. in Environmental Studies, Sustainability, and GIS at George Washington University. While at GW, Ellie held many positions including coordinating student leaders for the Office of Sustainability, mapping corporate food security efforts at the U.S. Chamber of Commerce, studying atmospheric teleconnections with the NASA DEVELOP program, and representing GW at the White House CEQ University Climate Roundtable and the UNFCCC COP 21. Now, at USC, Ellie enjoys organizing mapathons with the Geography Graduate Student Association, taking the occasional trip to the local ice skating rink, and spending time gardening and playing with her cats. Next year, Ellie hopes to enroll in the Geography PhD program at USC in to continue her research studying coastal agricultural transitions.



In 2013, Ellie spent a semester studying Sustainability and Environmental Action. This picture was taken right after she saw her first platypus!

## Upcoming Events

[NC Association of Floodplain Managers Annual Conference](#)  
April 15-18, 2018  
Wilmington, NC

[Carolinas Climate Resilience Conference](#)  
September 17-19, 2018  
Columbia, SC

[South Carolina Water Resources Conference](#)  
October 17-18, 2018  
Columbia, SC

## Carolinas Climate Listserv

Subscribe to the [Carolinas Climate Listserv](#) to learn about the latest climate research and information, upcoming events, funding opportunities, and other relevant news for the Carolinas.



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**RISA**  
Regional Integrated Sciences  
and Assessments



UNIVERSITY OF  
SOUTH CAROLINA

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## Recent Drought: A Report of the Southeastern Drought and Wildfires of 2016

By: Kerry Guiseppe

Drought in the Southeastern US is not a new or an unusual occurrence. When drought occurs, researchers can utilize the impacts to study the short and long-term effects to help form recommendations for future drought management. A recent report by Charles Konrad (Director of the NOAA Southeast Regional Climate Center (SERCC), Principal Investigator of CISA at University of North Carolina, Chapel Hill) and Pam Knox (Agricultural Climatologist/Public Service Associate at the University of Georgia) discusses the most recent drought in the Southeast and its impacts on agriculture, health, tourism, and water supplies.

The 2016-2017 Southeastern drought lasted from March 2016 through February 2017. The core of the drought covered northern Georgia and Alabama, western North Carolina, eastern Tennessee, and northwestern South Carolina. It began with precipitation deficits in March 2016, which were compounded by long dry spells in the fall of 2016. Record-setting high temperatures throughout the region from September through November accelerated drought impacts by increasing evaporation rates. Many individual weather stations registered close to the hottest maximum temperatures ever recorded and many went almost two months with no recorded precipitation.

Learning from the impacts of the drought, the researchers have drawn several ideas about future drought management. Specifically, they note a need for better communication of worsening drought conditions to help alert managers to impending impacts. Drought initiation was not well identified and impacts occurred before the National Drought Monitor recorded the changes. Using the Drought Impact Reporter and Community Collaborative Rain, Hail & Snow Network (CoCoRaHS), observers may fill in the knowledge gaps to help states react more quickly to drought issues. Increased interagency and interstate communication and coordination would also help in identifying and responding to drought. For more information, check out the full report here.

### Impacts of the 2016 Drought in the Southeast

- **Agricultural:** A primary, multi-billion-dollar industry in every Southeastern state, was significantly impacted by the drought. Agricultural impacts included reduced hay production, and decreased yields of corn, cotton, and peanuts.
- **Wildfires:** The combination of high temperatures and no rain led to an increase in wildfires in the region. There was a surplus of fuel in much of the region because there had been no wildfires in some areas for decades. Numerous large wildfires occurred in late October through November requiring millions of dollars and manpower to contain.
- **Health:** There was an increase in hospitalizations due to respiratory issues as smoke plumes from the wildfires moved through the region.
- **Tourism:** There was an estimated tourism loss of \$19 million in Gatlinburg, TN and attendance in the Great Smokey Mountains dropped 17.4% compared to 2015. Much of the tourism loss can be attributed to the wildfires. Contrarily, tourism in some areas of the drought expanded due to numerous days of warm and sunny weather.
- **Water resources:** Stream discharges were impacted by the drought with various streams reaching record low levels. Reservoir levels dropped more slowly but restricted releases of water from reservoirs impacted the amount of water available for hydropower generation.



The Pinnacle Mountain Fire seen from a SC National Guard helicopter used to fight the fire, November 10, 2016.  
Source: SC National Guard



The Chimney Tops 2 Fire that burned into Gatlinburg, TN, December 2016.  
Source: Incident Management Team

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## Join the Conversation

### **Submit Your Presentation or Session Ideas for the 2018 Carolinas Climate Resilience Conference Today!**

Across the Carolinas, people from all walks of life have been affected by recent extreme events in our two states. From the devastating impacts of wildfires last fall in the Western Carolinas to flooding from Hurricanes Matthew and Irma along the coast, the recovery process continues for many communities. Destroyed buildings and homes that have yet to be torn down or repaired after the October 2015 floods swept through communities in the Midlands are still a reminder of the strength of Mother Nature.

These events have encouraged people to consider how weather and climate affects each of us and how we can rebuild more resiliently and plan for the future in ways that will reduce the impacts felt by such extreme events. The [2018 Carolinas Climate Resilience Conference](#) will bring together many of the people affected by these events, to share the lessons they have learned and discuss plans for the future with their colleagues from throughout the region.



2016 CCRC Source: Brooke Keppy

### **Shaping the Future of Adaptation in the Carolinas**

We are also excited about the addition of a special session track for the 2018 conference, “Accelerating Climate Action through Innovation and Technology.” Learn more about this new opportunity on [page 4](#).

Each of you has a story to tell and inspiring work to share. We invite you to submit your ideas for presentations and submissions at the 2018 CCRC over the next month. The deadline for submissions is Friday, April 13. A final program will be developed by early June.

By coming together as a community, we can ensure that North and South Carolinians are prepared for the future, regardless of what is in store.

Learn more about how to submit your ideas at: <http://www.cisa.sc.edu/ccrc/presenters.html>



Following

@NCWF Richard Mode talks about filming his @climatestorync with a packed room at #CCRC2016 [climatestoriesnc.org](http://climatestoriesnc.org)



### **Interactive Presentations Provide Space for Dialogue**

As past CCRC attendees can attest, this conference is not about just sitting and listening. Interaction and networking are strongly encouraged, especially in the way that information is shared during the concurrent sessions. Presentation formats such as “Connecting the Dots” and “Sharing Lessons Learned” are designed to give speakers the opportunity to ask questions of other attendees, share ideas, and tell their stories in a meaningful way. We have redesigned the tool and resources demonstration format, to provide an opportunity for developers to share specific examples of how their tools have been utilized for climate adaptation on the ground. More information on all of the presentation formats can be found [here](#).

### **The CCRC will provide an open forum for discussion about a variety of topics to include:**

- Case studies of regional adaptation strategies
- Climate and energy
- Climate communication and education
- Climate science research and information in the Carolinas
- Conservation and natural resource management
- Coastal resilience
- Equitable climate adaptation
- Financing your climate adaptation work
- Green infrastructure
- Public health impacts
- Technological advancements to support adaptation
- Water resources management
- And many more!

Access more presentation and session topic ideas [here](#).

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## Walking the Talk - Carbon Offsets for the 2018 CCRC

Greensboro, N.C.-based Urban Offsets helps corporations and higher education institutions invest carbon offsets in the places and relationships that matter to them. This transforms carbon offsets into assets that help fight climate change, strengthen strategic partnerships, and create climate resilient cities. Using a Sustainability Portfolio approach, Urban Offsets evaluates and grades carbon offsets and bundles them with community development programs that sustainably engage nonprofit partners in each city. As corporations and institutions purchase credits, Urban Offsets funds local tree planting and maintenance programs in the nonprofit's local community. Urban Offsets currently operates in 12 U.S. markets and supports more than 10,000 new trees planted in 2017.

The **Carbon Neutral Sponsor** for the 2018 Carolinas Climate Resilience Conference will help our attendees offset their carbon footprint and support local tree plantings in the Carolinas, including a planting with the City of Columbia during the conference that attendees will be invited to join. In order to allow time for ordering trees to be planted at the time of the conference **we are seeking a Carbon Neutral sponsorship commitment by April 30, 2018**. Contact Kerry Guisepppe ([guiseppk@mailbox.sc.edu](mailto:guiseppk@mailbox.sc.edu)) for more information.

## CISA and ASAP Join Forces for Resilience in the Carolinas

By: *Suzannah Schneider*

Here at the **American Society of Adaptation Professionals** we are eagerly anticipating the **2018 Carolinas Climate Resilience Conference**. From a brand new track to an inaugural award, we have so much to look forward to come September. Read on to learn all about our collaboration for this year's Regional Adaptation Fora.

### Introducing the Carolinas Regional Adaptation Leadership Award

Well before the conference begins we are actively planning the brand new **Regional Adaptation Leadership Award** for the Carolinas. This award program recognizes the fact that deliberate, proactive adaptation, preparedness, and resilience-building is a change process, a deviation from business-as-usual, and a courageous act of doing something new and different. The RALA acknowledges distinguished adaptation leaders who approach their work in a strategic, sophisticated, well informed, inclusive, and effective manner. Keep an eye out for the Call for Nominations, open through May 18. You may nominate any adaptation professional who works in the



ASAP Executive Director Beth Gibbons presents 2016 California Regional Adaptation Award to Larry Greene, retired Executive Director of the Sacramento Metropolitan Air Quality Management District



ASAP Executive Director Beth Gibbons and ASAP Member Kristin Baja direct a Game of Floods Workshop

Carolinas (as long as they are not on the selection committee).

### Session Track Highlights Innovations in Adaptation

We are also thrilled to announce an integrated "Accelerating Climate Action through Innovation and Technology" track into the conference during the Carolinas Climate Resilience Conference. This track will elevate cutting-edge and transformative technologies, financing opportunities, and policies - especially those happening in or with applications for the Carolinas.

These Innovation and Technology sessions - including a plenary - will draw together diverse participants from many sectors. For example, we'll mix innovative producers with end users, and join resources with the needs of underrepresented communities. This track functions to speed up the efficiency of technological, policy, and finance innovation to inspire action that propels us into the next state of the climate adaptation field.

CCRC attendees will be able to explore these new ideas in Innovation and Technology during a special reception co-hosted by ASAP and **The Collider**, synthesizing the track's concepts in an informal but dedicated space.

We continue to be glued to CCRC's website for updates, especially the countdown to the conference at the top of the page. As **The Happening** say, "see you in September!"