

Carolinas Climate Connection

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

Shifting Focus

A New Direction for the CISA Newsletter

Following the 2016 [Carolinas Climate Resilience Conference \(CCRC\)](#), we asked attendees what they found most valuable about the event. One of the most common responses was an agreement that **case studies of climate adaptation and resilience** are particularly valuable - to find out what others are doing in the Carolinas and to consider how those lessons learned might be applied in their own work. The networking opportunities that the conference provides were also highlighted as one of the most valuable components.

In response to this feedback, we're taking the Carolinas Climate Connection in a slightly new direction. Each quarter we'll highlight projects and activities from individuals and organizations who shared their stories at the 2016 CCRC. We hope that this new focus will help extend the reach of the conference and build connections across the network. In this first edition, we'll highlight the work of [Greg Andeck](#) and the NC Chapter of the National Audubon Society. Not only are Greg and his colleagues working to understand the implications of climate change on bird species in NC, they have also launched new programs to engage citizen scientists in monitoring these species to detect change over time. Learn more on [page 3](#).

Coming Soon!

Convergence: A Climate and Health Information Portal for the Carolinas

On May 1st, CISA will launch the new Convergence website, a portal of information about, and tools to address, public health impacts of heat, drought, hurricanes, severe weather, and winter storms specific to the Carolinas. Visualizations of community vulnerabilities are focused on increasing awareness and understanding of age structure, poverty, housing, water resources, employment, infrastructure, transportation, and communication networks, and how they interact with extreme events. Convergence is the outcome of a CISA collaboration with the Southeast Regional Science Center, the NC Division of Public Health, and community stakeholders. This unique collaboration integrates research and community action to empower public health officials and others dealing with the impacts of extremes in their work to improve the lives of Carolinians.

Check out this recent article about Convergence in [NC Health News](#) highlighting the importance of local knowledge and community collaboration.



Upcoming Events

NC Coastal Conference

April 4-5, 2017
Raleigh, NC

SC Water Resources Summit: Back to the Future of Drought

April 21, 2017
Clemson, SC

Southeast & Caribbean Climate Community of Practice Meeting

April 24 - 26, 2017
Charleston, SC

Awakening V: King Tide

Creative art installations across the Charleston peninsula
April 29 - May 26, 2017
Charleston, SC

National Adaptation Forum

May 9-11, 2017
St. Paul, MN

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.



USC Department of Geography
Callcott Building
709 Bull Street
Columbia, SC 29208
www.cisa.sc.edu
(803) 777-6875
cisa@sc.edu
[@CarolinasRISA](https://www.facebook.com/usccisa)
www.facebook.com/usccisa



The University of South Carolina is an equal opportunity institution.

Newsletter Contents

- 2 Getting to Know Your RISA
Featured Team Member: Kerry Guiseppe
- 2 Join Us! For the 2017 Southeast and Caribbean Climate Community of Practice Meeting
- 3 CCRC Case Study Call Out
Citizen Science at its Finest: A case study of citizen science leading the way for bird conservation and climate adaptation

Getting to Know Your RISA

Featured Team Member: Kerry Guisepppe

Meet Kerry Guisepppe, the new Program Coordinator for CISA. Kerry is a native Chicagoan but spent much of her life moving around the country from Missouri to New York City, North Carolina, Colorado, Louisiana, Maine, New Mexico, South Dakota and finally to South Carolina. Kerry has her BS in Wildlife Biology from Colorado State University and her MS in Ecology and Environmental Sciences from the University of Maine where she worked on the effects of herbicide applications in managed timberlands on ant communities. Kerry's work with CISA includes organizing projects and budgets, helping with communications and outreach through the newsletter and listserv, supporting the CoCoRaHS Citizen Science Condition Monitoring project, and helping to plan the Southeast and Caribbean Climate Community of Practice 2017 meeting and the biannual Carolinas Climate Resilience Conference. Kerry enjoys contributing to work that utilizes available science to support climate adaptation and resilience management decisions and increasing communication and activities among scientists, managers, and the public. Kerry is a baseball and dance mom and enjoys spending time cooking, gardening, hiking, and being with her family.



Kerry gets up close and personal with bison on Grant's Farm in St. Louis, MO.

Join Us! For the 2017 Southeast & Caribbean Climate Community of Practice Meeting

By: Kerry Guisepppe

The Southeast and Caribbean Climate Community of Practice (CCoP) will hold an in-person meeting on **April 24-26, 2017** in Charleston, SC. The agenda for this year's meeting includes a full day of discussion about Hurricane Matthew including the storm's impacts throughout the region, lessons learned in rapid response and recovery planning, and disaster communications.

The CCoP is thrilled to host Mr. Jason Hurdich (RID Certified Deaf Interpreter, SC Vocational Rehabilitation Department) and Shonna Magee (the Statewide Coordinator of Deaf and Hard-of-Hearing Services with the SC Vocational Rehabilitation Department) as the keynote speakers on Wednesday morning. Mr. Hurdich and Ms. Magee became household names last year for their interpretation of South Carolina Governor Nikki Haley's press briefings during Hurricane Matthew. They will bring an exciting and unique perspective on disaster communication. Check out this story from [The State newspaper](#) about their contributions.

Other agenda items include:

- a session on the connections between disaster recovery planning and long term adaptation planning;
- speakers sharing examples of successful resilience partnerships in the Southeast;
- an opportunity to discuss possible collaborative funding opportunities and projects with fellow CCoP members;
- field trips in historic downtown Charleston;
- ample opportunities for networking and discussion.

The meeting will be held at the [Hilton Garden Inn Charleston Waterfront/Downtown](#). All room reservations must be made by April 10 to secure the discounted rate. [Registration](#) will close April 17, 2017.



Paul Wolff gives 2016 CCoP meeting participants a tour of climate adaptation in action on Tybee Island, GA.



City of Beaufort, SC Mayor Billy Keyserling gives the keynote to wrap up the 2016 meeting.

More information, including the full agenda and the discount code for booking at the meeting hotel, can be found on the [SECCCoP website](#).

About the Southeast & Caribbean Climate Community of Practice

The CCoP is a group comprised of local, state, and federal government officials, academia, outreach and extension professionals, non-profit organizations and private sector representatives who work to apply climate science and support coastal communities and ecosystems in adapting to climate change. It provides a forum for sharing lessons learned and best practices; education and networking opportunities; and the coordination and performance of outreach, extension and communication activities. The exchange of information among members adds to the availability of expertise for adaptation and resilience throughout the region.

Citizen Science at its Finest:

A case study of citizen science leading the way for bird conservation and climate adaptation

By: Kerry Guisepppe

Everyone loves to hear and see birds this time of year, it reminds us that Spring is arriving and the cold days of winter are mostly behind us. Because of their popularity, birds can be a connecting force when discussing climate change, bringing together different stakeholders in support of resilience efforts. Using citizen science to support those efforts is incredibly successful, as demonstrated by the long history of Audubon's citizen science programs. During the September 2016 Carolinas Climate Resilience Conference Greg Andeck, the Senior Manager of Conservation Solutions from Audubon North Carolina, gave a presentation entitled "Hopeful Solutions for North Carolina Birds in the Face of Climate Change". Audubon North Carolina's work to support bird conservation efforts in the face of climate change is multifaceted and depends on citizen science efforts. Mr. Andeck discussed Audubon's 2014 Birds and Climate Change Report which concludes 314 bird species are on the brink due to shrinking and shifting ranges. Approximately 126 bird species populations are climate endangered (>50% range loss by 2015), 188 bird species are climate threatened (>50% range loss by 2080), and 271 bird species are stable or growing. Audubon has used the data at its disposal to create climate adaptation and resilience strategies including climate stronghold mapping, nesting box projects, marsh resiliency, private landowner partnerships, and native plants programs. But where did the data come from? It came from multiple citizen science endeavors including the world's longest running citizen science project.

Audubon's citizen science projects have succeeded in educating the public, stimulating conservation efforts, and creating population and community data to assist scientists and managers in creating climate resilience strategies. The Christmas Bird Count is the longest running citizen science project; it has been running continuously since 1900. The Great Backyard Bird Count is in its twentieth year. Both of these counts give insights on bird population numbers, migration patterns, and habitat use.

The Climate Watch Program is a brand new citizen science effort that focuses on bird species which climate models predict will be most impacted by climate change. In North Carolina for example, Climate Watch participants will be looking at three species of nuthatches utilizing a bird count twice a year. Another citizen science effort is the Ambassador Program, which teaches citizens to: 1) be the messenger by sharing information and the love of birds; 2) be the solution by encouraging native plants and bird friendly back yards; and 3) be an advocate by being a resource for others, hosting presentations, talking with elected officials, and encouraging communities to take action. By training enthused bird advocates, Audubon is creating a source of citizen support for climate resilience efforts.

Audubon created the Birds and Climate Change Report based on data from their citizen science programs and models created by their scientists. They also used the data to define "climatic suitability" or the range of temperatures, precipitation and season changes each species needs to survive. Using internationally recognized scenarios for future greenhouse gas emissions, Audubon mapped where each bird species preferred climate range may be found in the future, calling these areas climate strongholds. Climate strongholds combined with habitat maps determines focus areas for future conservation planning.

Citizen Science has significantly contributed to the current resilience planning of North Carolina Audubon. Contributions range from data to advocacy and result in stronger programs for avian survival in the face of climate change.



The Red Crossbill is one of many bird species recorded by citizen science activities that advance conservation strategies at places like Grandfather Mountain State Park in North Carolina which is an anchor of the Grandfather Mountain Important Bird Area. Source: Red Crossbill by Don Faulkner/ Flickr Creative Commons



The Brown Headed nuthatch is currently the focus of several Audubon conservation efforts including the Climate Watch Program and nuthatch nest boxes. Source: Les Howard/Flickr Creative Commons



The Prothonotary warbler is Audubon's 2017 Bird of the Year! Their population has decline by 42 percent since 1966. Protecting stream buffers, building nest boxes, prioritizing conservation of their habitat and surveying populations will help this warbler to survive. Source: US Fish and Wildlife Service/ Flickr Creative Commons