



Conference Program

The tables below provide an overview of the conference agenda. The full conference program begins on page 2. Click on the session number in the tables below to jump to the session information in the full conference program.

Monday, May 3	Tuesday, May 4	Wednesday, May 5	Thursday, May 6
10:30 – 12:00	9:30 – 12:00	10:30 – 12:00	10:00 – 12:00
Pre-Conference Workshop 1	Pre-Conference Workshop 2	Pre-Conference Workshop 3	Pre-Conference Workshop 4

Monday, May 10

12:00 – 1:00	On-Site Registration				
1:00 – 2:30	Welcome & Opening Plenary				
2:30 – 2:45	Break				
2:45 – 3:45	Session 1A	Session 1B	Session 1C	Session 1D	Session 1E
3:45 – 4:15	Break				
4:15 – 5:15	Session 2A	Session 2B	Session 2C	Session 2D	Session 2E
5:30 – 7:00	Networking Reception (In-person and Virtual Options)				

Tuesday, May 11

8:00 – 8:30	Breakfast & Virtual Networking				
8:30 – 10:00	Morning Plenary				
10:00 – 10:30	Break				
10:30 – 12:00	Session 3A	Session 3B	Session 3C	Session 3D	
12:00 – 2:00	Lunch & Virtual Networking				
2:00 – 3:00	Session 4A	Session 4B	Session 4C	Session 4D	Session 4E
3:00 – 3:30	Break				
3:30 – 5:00	Session 5A	Session 5B	Session 5C	Session 5D	Session 5E

Wednesday, May 12

8:00 – 8:30	Breakfast & Virtual Networking				
8:30 – 10:00	Session 6A	Session 6B	Session 6C	Session 6D	Session 6E
10:00 – 10:30	Break				
10:30 – 12:00	Session 7A	Session 7B	Session 7C	Session 7D	Session 7E
12:00 – 12:30	Lunch Break				
12:30 – 2:00	Closing Plenary				



Conference Program

Pre-Conference Workshops

We will offer 4 pre-conference workshops through the virtual conference platform. These sessions will be accessible to all registered attendees, whether you register as an in-person or virtual attendee.

Monday, May 3 - 10:30 - 12:00

Conference Kick-Off

CISA Research and Resources to Support Climate Resilience in the Carolinas

Kirstin Dow, UofSC and CISA
Greg Carbone, UofSC and CISA
Amanda Farris, UofSC and CISA
Jory Fleming, UofSC and CISA
Chip Konrad, UNC Chapel Hill, Southeast Regional Climate Center, and CISA
Kirsten Lackstrom, UofSC and CISA
Sarah Watson, S.C. Sea Grant Consortium and CISA

Tuesday, May 4 - 9:30 - 12:00

Principles of Quality Climate Adaptation and Resilience Practice

Rachel Jacobson, American Society of Adaptation Professionals (ASAP)
Jim Fox, NEMAC+FernLeaf
Danielle Costantini, NC Department of Environmental Quality
Sharai Lewis-Gruss, First Street Foundation

Wednesday, May 5 - 10:30 - 12:00

Tapping into Community Knowledge: A Strategy to Bring Equity to Climate Resilience Initiatives

April Ingle, River Network
Diana Toledo, River Network
Steve Anderson, Ellerbe Creek Watershed Association

Thursday, May 6 - 10:00 - 12:00

Creating Regional Extreme Heat Resilience Plans

Tara Mei Smith, Extra Terrestrial Projects
Max Cawley, NC Museum of Life and Science
Tobin Freid, Durham County, NC
Ladd Keith, University of Arizona
Daphne Lundi, New York City Mayor's Office of Recovery and Resiliency
Melissa Scott, Duke University, Samuel DuBois Cook Center on Social Equity



Conference Program

Monday, May 10

1:00 – 2:30 Welcome and Opening Plenary

Welcome

Kirstin Dow, University of South Carolina and CISA

Carolinas Regional Adaptation Leadership Award Ceremony

Beth Gibbons, American Society of Adaptation Professionals

The Climate Challenges We Face and Our Inspiration to Act

Susannah Tuttle (Moderator), NC Interfaith Power & Light

Kaylah Brathwaite, Zero Hour

Reverend Dawn Baldwin Gibson, Peletah Ministries

Susanne Moser, Susanne Moser Research and Consulting

2:30 – 2:45 Break

2:45 – 3:45 Concurrent Sessions

Session 1A Poster Presentations

The Fifth National Climate Assessment: Updates and Opportunities for Participation by the CCRC Community

Joshua Hernandez, US Global Change Research Program

Landslide Vulnerability and Risk Assessment to Support Resilience Planning in Western North Carolina

Matthew Hutchins, NEMAC+Fernleaf

Near-real Time Drought Monitoring Using Satellite and In-situ Precipitation Datasets and Application to the Carolinas

Olivier Prat, NC Institute for Climate Studies

#ShowYourStripes - Making Global Climate Data Local in the Carolinas

Jared Rennie, NC Institute for Climate Studies

SC Safe Home adopts FEMA "Daug Haus" Construction Demo and Encourages Improved Mitigation Techniques and Methodologies for the Home Construction & Retrofit Industry

Ann Roberson, SC Department of Insurance

The Economic Impact of the U.S. Climate Resilience Toolkit: A Case Study Approach

Karin Rogers, UNC Asheville's National Environmental Modeling and Analysis Center

Session 1B Planning for a More Resilient Future

Macro to Micro – Designing in Harmony with Poetry, Science, and Place

Matt Barnett, LS3P Associates

Living with Water

Terry DeMeo, USS North Carolina Battleship

Jenny Davis, NOAA

Dawn York, Moffat & Nichol

Lake Mattamuskeet Watershed Restoration Plan

Michael Flynn, North Carolina Coastal Federation

Training Design for Sustainable and Resilient Organizations: A Local Government Example in a Coastal Community

Maeve Snyder, North Inlet-Winyah Bay NERR



Conference Program

Session 1C *Practical Policies for Flood Prevention*
Recommendations for Improving Buyouts at the Federal, State, and Local Levels
Matt Fuchs, The Pew Charitable Trusts
Cape Fear Public Utility Authority Pump Station Vulnerability Study
Lindsey Hallock, Cape Fear Public Utility Authority
Before the Flood: Funding Resilience at the Local Government Level
Mary Tchamkina, Raftelis
Maya Cough-Schulze, Triangle J Council of Governments
A Multi-Sectoral Network for Shoreline Management and Wetlands Protection in Virginia: Understanding the Roles of Actors from Multiple Sectors
Wie Yusuf, Old Dominion University

Session 1D *Carolinas Climate Extremes*
The Precipitation Roller Coaster: From Floods to Drought and Back Again
Melissa Griffin, South Carolina State Climatology Office
Extreme Rainfall Trends in South Carolina
Hope Mizzell, South Carolina State Climatology Office
Using NASA Earth Observations to Quantify the Impact of Urban Tree Canopy Cover on Urban Heat and Identify Community Vulnerability in Asheville, North Carolina
Andrew Shannon, NASA DEVELOP National Program
Heat Stress at the Department of Energy's Savannah River Site
David Werth, Savannah River National Laboratory

Session 1E *Coastal Community Health and Resilience*
Complex Hazards and Community Resilience: Small Businesses, Hurricanes, & COVID-19
Eleanor Davis Pierel, University of South Carolina and CISA
Communication Preferences after a Hurricane in Eastern North Carolina
Suzanne Lea, East Carolina University
Opportunities for Collaborative Climate Adaptation: Preliminary Findings on the Impacts of Compounded Crises on Remote, Tourism-Dependent Coastal Communities
Virginia Patterson, NC State University
Coastal Community Health Resilience: Expanding Perspectives and Capacity in Sea Grant
Susan White, NC Sea Grant

3:45 – 4:15 Break

4:15 – 5:15 Concurrent Sessions



Conference Program

Session 2A

Student Poster Presentations

Regionalized Coastal Management – A Case Study on Two Regionalized Beach Nourishment Projects on the North Carolina Coast

Sarah Henshaw, UNC Chapel Hill

Discounted Cash Flow and Capital Budgeting of FloodWise, a Pilot Water Farming Program in Eastern North Carolina

Meredith Hovis, NC State University

Flood Memorialization and Community Resilience

Jason Kops, East Carolina University

Understanding South Carolina Coastal Government Influences in Policymaking in Relation to Changing Climates and Ecosystems

Shelly McComb, College of Charleston

Lowering Building Emissions through Storytelling: Portraits of Asheville's Energy Efficient Businesses

Andrew Polich, Lenoir-Rhyne University

Community Outreach During A Pandemic: Implementing A Largescale Shoreline Resilience Project with The Nature Conservancy

Christopher Williams, Coastal Carolina University

Session 2B

Lightning Talks: Community Health and Resilience

North Carolina's Natural and Working Lands Action Plan

Misty Buchanan, NC Natural Heritage Program

Stuck in the Middle: Barriers to Local Administration of Post-Hurricane Buyouts

Leah Campbell, UNC Chapel Hill

Everyday Adaptation: How Coastal Residents' Adapt to Climate Hazards

Brianna Castro, Harvard University

The Potential Economic Impacts of Climate Change on N.C. Commercial Fishing

Christopher Dumas, UNC Wilmington

Climate Change Impacts on the NC Roadway System in 2050: A Systemic Perspective

Huiying Fan, Georgia Institute of Technology

Session 2C

Lightning Talks: Flood Resilience

Avoiding Coastal Hazards through Subsidy Removal

Jordan Branham, UNC Chapel Hill

Student Engineering Designs to Promote Resilience in the Lake Mattamuskeet Watershed

Randall Etheridge, East Carolina University

One Step Forward, Two Steps Back: Managing Floodplain Development in NC

Miyuki Hino, UNC Chapel Hill

Climate Change Adaptation Strategies for Stream Restoration and Riparian Asset Protection

Tracey Marshall, Hazen and Sawyer

Mapping Coastal Protection and Blue Carbon for North Carolina

Katie Warnell, Nicholas Inst for Environmental Policy Solutions, Duke University



Conference Program

Session 2D *Lightning Talks: Climate in the Carolinas*
The Development and Validation of a Web-based Tool to Forecast Wet Bulb Globe Temperature
Jordan Clark, UNC Chapel Hill and CISA
Assessing Wildfire Risk in the Southeast U. S. Using a Fire Behavior Model
Peng Gao, UNC Wilmington
Evaluating Trends in the Occurrence of Coastal Flooding in Charleston, SC
Blair Holloway, National Weather Service
South Carolina Tornado Climatology (1950-2019) and Visualizations
Alexander McGinnis, National Weather Service
Transforming NOAA to a Service Delivery Framework
Ellen Mecray, NOAA

Session 2E *Lightning Talks: Climate in Context*
Equitable Governance and Climate Resilience in Rural, Inland Communities: A Case Study of Robeson County, North Carolina
Tira Beckham, NC State University
Low-Cost Air Quality Monitoring in North Carolina
Brian Magi, UNC Charlotte
Climate through the Prism of COVID: Lessons on Structural Vulnerability and Resilience in the Food, Health, and Social Service Sectors
Jessica McClelland, Appalachian State University
North Carolina's Historic & Cultural Properties at Risk
Shaleen Miller, UNC Greensboro
Investigating Ecosystem Impacts of Climate Change in the Carolinas
Andrew Robinson, UNC Charlotte

5:30 – 7:00 *Networking Reception*
In-Person and Virtual Options

Tuesday, May 11

8:00 – 8:30 *Breakfast & Virtual Networking*

8:30 – 10:00 *Opening Plenary*
State and Local Risk Assessment and Resilience
Amanda Martin (Moderator), NC Office of Recovery and Resilience
Sushma Masemore, NC Department of Environmental Quality
Tom Mullikin, SC Floodwater Commission
Mayor Don Hardy, City of Kinston, NC
Ray Funnye, Georgetown County, SC



Conference Program

10:00 – 10:30 Break

10:30 – 12:00 Concurrent Sessions

Session 3A Symposium

Building Capacity for Climate Resilience in Albemarle-Pamlico Region Tribal Communities

Stacey Feken, Albemarle-Pamlico National Estuary Partnership
Elizabeth Andrews, Virginia Coastal Policy Center, William & Mary Law School
Ryan Emanuel, NC State University, Lumbee Tribe of North Carolina
Jocelyn Painter, NC State University, Winnebago Tribe of Nebraska
Beth Roach, NC Commission of Indian Affairs, Nottoway Indian Tribe of Virginia

Session 3B Symposium

Understanding Extreme Heat Risk in a Lowcountry Oasis: Engaging a Coastal Healthcare System in Climate-readiness Solutions

Janice Barnes, Climate Adaptation Partners
Jen Runkle, NC State University
Christine von Kolnitz, Medical University of South Carolina

Session 3C Symposium

Climate Change Communications and Education

Rebecca Ward, State Climate Office of North Carolina
K.C. Busch, NC State University
Max Cawley, NC Museum of Life and Science
Lauren Daniel, NC Department of Environmental Quality
Tom Maycock, NC State University, NC Institute for Climate Studies

Session 3D Symposium

Wastewater Infrastructure Tipping Points: Climate Adaptation for Onsite (Septic) Systems

Jane Harrison, NC Sea Grant
Jared Bowden, NC State University
Katie Hill, University of Georgia
Charles Humphrey, East Carolina University
Mike O'Driscoll, East Carolina University
Kylie Shephard, Town of Nags Head, NC
Holly White, Town of Nags Head, NC

12:00 – 2:00 Lunch



Conference Program

2:00 – 3:00 Concurrent Sessions

Session 4A *Creating Strategies for Equitable Adaptation*
Developing a Multi-Hazard Climate Risk Index for Adaptive Land and Resource Management in Complex Terrain
Bjorn Brooks, NC Institute for Climate Studies
Hurricane Matthew and Subsequent Housing Instability
Nora Louise Schwaller, UNC Chapel Hill
Identifying Populations Vulnerable to Hurricane Impacts in Coastal Carolina using Mappable Indicators
Robert Truesdale, RTI International
Environmental Justice and Disaster Recovery: The Role of Leadership in Fostering Recognition of the Latinx Community in Wilmington, NC
Olivia Vila, NC State University

Session 4B *Resilient Infrastructure and Design*
Filling the Gaps: Weather and Climate Information for Small- and Medium-Size Water Utilities
Tamara Houston, NOAA National Centers for Environmental Information
Cut Off: Changing Utility Duties in the Era of Climate Change Disasters
Heather Payne, Seton Hall University School of Law
Creating a Carolina Alternative Fuel Infrastructure Storm Resilience Plan
Caitlin Rose, Triangle Clean Cities, Triangle J Council of Governments
Weathering the Storm: Resilient Wins on the North Carolina Coast
Roy Wright, Insurance Institute for Business & Home Safety

Session 4C *Nature-Based Solutions for Flood Resilience*
North Coast Resilience in South Carolina – Using Nature Based Projects for Flood Mitigation
Joy Brown, The Nature Conservancy
FloodWise: A Water Farming Program to Mitigate Future Floodwaters
Fred Cabbage, NC State University
Using Green Stormwater Infrastructure to Sustainably Address Changing Storms
Matthew Jones, Hazen and Sawyer
Implementation of the North Carolina’s Natural and Working Lands Initiative
Rick Savage, Carolina Wetlands Association

Session 4D *Navigating Through the Weeds of Comprehensive Resilience Planning: A Beaufort County, SC Case Study*
Sarah Watson, S.C. Sea Grant Consortium and CISA
Rob Merchant, Beaufort County, SC
Kim Jones, Town of Bluffton, SC



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- Session 4E* *Student Poster Presentations*
- Environmental Fate of Microplastics and Tire Wear Particles from Coastal Floodwater in Charleston, SC*
Bonnie Ertel, The Citadel
 - Simulated Extreme Precipitation Events Under a Future Warming Paradigm*
Geneva Gray, NC State University, EPA
 - Flood Hazards at the River-Coastal Interface of Carolina Watersheds*
Lauren Grimley, UNC Chapel Hill
 - An Assessment of Winter Weather in the State of South Carolina*
Finn Hagerty, UofSC and SC State Climatology Office
 - Reporting on Hurricanes in the Tarheel State: How News Media in Remote Coastal Communities Address Disaster Preparation and Recovery Policy*
Patricia McKee, NC State University
- 3:00 – 3:30 Break
- 3:30 – 5:00 Concurrent Sessions
- Session 5A* *Symposium*
- How Faith Communities are Key to Climate Resilience*
Susannah Tuttle, NC Interfaith Power & Light
Dallas Conyers, Southeast Climate Action Faith Leaders Avery
Davis Lamb, Creation Justice Ministries, Duke University
Kara Nunnally, Duke University
Codi Norred, Georgia Interfaith Power & Light
- Session 5B* *Symposium*
- North Carolina Resilient Communities Program – Enhancing Local and Regional Capacity for Resilience*
Samantha Burdick, NC Division of Coastal Management
Bryan Byfield, NC Office of Recovery and Resilience
Brian Boutin, The Nature Conservancy
Joe Heard, Town of Duck, NC
Bronwyn Lucas, NC Rural Center
Amanda Martin, NC Office of Recovery and Resilience
Mackenzie Todd, NC Division of Coastal Management
- Session 5C* *Symposium*
- Our Resilient Coasts: Mapping Resilient Lands, Flood Exposure, and Floodplain Values in the Coastal Carolinas*
Liz Fly, The Nature Conservancy
Mark Anderson, The Nature Conservancy
Joy Brown, The Nature Conservancy
Danica Schaffer-Smith, Arizona State University, The Nature Conservancy
Keil Schmid, Geoscience Consultants



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Session 5D Symposium
Empowering Youth to Contribute to Climate Resilience Efforts in their Communities: Lessons from the Field

Dana Haine, UNC Chapel Hill, Institute for the Environment
Hannah Barg, NC Museum of Natural Sciences
Emerald Izuakor, NC Museum of Natural Sciences
Merrie Koester, USC Center for Science Education
Harold Boyd, Devin Bowen, Joi Kemp, Jair McElveen, and Nacela Melvin - Men & Women United for Youth and Families

Session 5E Symposium
Compound Coastal Water Events: A Multidisciplinary Approach to Resilience

Scott Curtis, The Citadel
Kelley DePolt, East Carolina University
Jennifer Helgeson, National Institute of Standards & Technology (NIST)
Joshua Robinson, Robinson Design Engineers
Anuradha Mukherji, East Carolina University
Philip Van Wagoner, East Carolina University
Nolan Williams, Robinson Design Engineers

Wednesday, May 12

8:00 – 8:30 Breakfast and Virtual Networking

8:30 – 10:00 Concurrent Sessions

Session 6A Symposium
Living Resiliency: An Interactive Cultural Environmental Circle from the Sea Islands of the Gullah/Geechee

Dan Rizza, Climate Central
Kate Cell, Union of Concerned Scientists
Kate Driscoll Derickson, University of Minnesota
Queen Quet, Gullah/Geechee Nation

Session 6B Symposium
Zoomtowns and Floodplains: Development Density Impact on Resilient Towns

Elaine Gallagher Adams, LS3P Associates
Keith Bowers, Biohabitats, Inc
Rodney Garner, Student
Justin Kearnan, LS3P Associates
Stefan Pelligrini, Opticos Design

Session 6C Symposium
Systematic Tracking of Recovery: A Longitudinal Community-Resilience Focused Investigation in Lumberton, NC Following Hurricanes Matthew and Florence

Jennifer Helgeson, Nat'l Inst of Standards & Technology
Shane Crawford, Nat'l Inst of Standards & Technology
Maria Dillard, Nat'l Inst of Standards & Technology
Sara Hamideh, Stony Brook University
Elaina Sutley, University of Kansas
Maria Watson, Texas A & M University



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Session 6D *Symposium*
Climatopia: A Children’s Game for Teaching Climate Disaster Resilience
Rachel Willis, UNC Chapel Hill
Karla Cordova Araujo, UNC Chapel Hill
Alexandros Pistiolis, UNC Chapel Hill
Sydney Thomas, UNC Chapel Hill

Session 6E *Symposium*
Policies and Systems to Effectively Implement Resilience
Peter Raabe, American Rivers
Chris Canfield, Conservation Trust of North Carolina
Grady McCallie, NC Conservation Network
Rob Moore, National Resources Defense Council, Inc.

10:00 – 10:30 Break

10:30 – 12:00 Concurrent Sessions

Session 7A *Symposium*
Grassroots Leadership Development for Resilience
Hannah Mico, River Network
Nicole Goddard, City of Raleigh, NC
Tatiana Height, Partners for Environmental Justice
Keshi Satterwhite, Ellerbe Creek Watershed Association

Session 7B *Symposium*
Technical Session on Oceans and Human Health and Climate Change Interactions
Ekaterina Altman, University of South Carolina
Paul Sandifer, College of Charleston
Geoff Scott, University of South Carolina

Session 7C *Symposium*
Advancing Nature-based Stormwater Strategies in North Carolina
Kristiane Huber, The Pew Charitable Trusts
Kevin Boyer, City of Raleigh, NC
Bill Cary, Brooks Pierce Law Firm
Hunter Freeman, McAdams
Todd Miller, The North Carolina Coastal Federation



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Session 7D

Symposium

Charleston Vulnerability and Risk Assessment, Major Findings and Next Steps

Jim Fox, NEMAC+FernLeaf

Janice Barnes, Climate Adaptation Partners

Ken Dierks, NEMAC+FernLeaf

Matthew Hutchins, NEMAC+FernLeaf

Katie McKain, City of Charleston, SC

Mark Wilbert, City of Charleston, SC

Session 7E

Symposium

Leveraging University and Government Collaborations to Support Coastal Resilience

Cari Furiness, USGS Southeast Climate Adaptation Science Center

Ryan Boyles, USGS Southeast Climate Adaptation Science Center

Michael Allen, University of Florida

Karen McNeal, Auburn University

Lydia Olander, Duke University

Mary Watzin, NC State University

12:00 – 12:30 Lunch Break

12:30 – 2:00 Closing Plenary

Student Poster Competition Awards Ceremony

Kirstin Dow, University of South Carolina and CISA

Climate Communications through the Arts

Melody Hunter Pillion (Moderator), UNC Chapel Hill, Journalist & Historian

April Hiscox, University of South Carolina, Climatology & Fabric Arts

Mary Edna Fraser, Artist & Musician

Judy Twedt, Musician

Donovan Zimmerman, Paperhand Puppet Intervention