

2023-24 ANNUAL REPORT



SOUTHEAST
Climate Adaptation Science Center

**OUR MISSION IS TO DELIVER
SCIENCE TO HELP FISH, WILDLIFE,
WATER, LAND, AND PEOPLE ADAPT
TO A CHANGING CLIMATE.**

The Southeast Climate Adaptation Science Center (SE CASC) leads science and partnerships to better understand climate impacts that inform adaptation efforts for fish, wildlife, ecosystems, and people. Working together across the footprint of the Center, we co-produce applied and actionable science with Tribal, federal, and state managers. The SE CASC is thrilled to introduce our expanded consortium with five new institutions, detailed on page 3, that more fully represent the expertise and diversity across our Southeast and Caribbean footprint, including six federally recognized Tribal Nations.

The highlight of the year, and for many of our careers, was hosting Secretary Deb Haaland at NC State University, the host institution for the SE CASC. This visit is detailed on page 2. We continued our legacy of supporting a diverse and interdisciplinary cohort of graduate students through our Global Change Research Fellowship program and welcomed 12 fellows, who you can meet on page 2. They worked on three team science synthesis projects, a new initiative by the SE CASC, that both hones their teamwork skills and provides needed data.

The SE CASC started a number of new projects and working groups this year with partners from across the region. This includes a working group to integrate forecasting and prediction about the impacts of climate change into a conservation vision for the Southeast, and a coordinated effort to evaluate the vulnerabilities of southeastern and Caribbean insect pollinators to climate change.

We invite you to connect with us as we continue our efforts to enable better climate-smart decisions in the changing landscapes of the Southeast.

— **CONSORTIUM DIRECTOR, REBECCA IRWIN
AND USGS DIRECTOR, KATHERINE SMITH**

Our team

ELLEN BROWN

USGS DATA STEWARD

MAIRA BRONDIZIO

ORISE COMMUNICATIONS
SCHOLAR

LYDIA CAMPBELL

PROGRAM MANAGER

JENNIFER CARTWRIGHT

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USGS RESEARCH ECOLOGIST

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CONSORTIUM DIRECTOR

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KASIA (CATHERINE) NIKIEL

CLIMATE IMPACTS
POSTDOCTORAL SCHOLAR

HAILEY SHANOVICH

CLIMATE CHANGE AND WILD-
LIFE ACTION PLAN FELLOW

KATHERINE SMITH

USGS DIRECTOR

ADAM TERANDO

USGS RESEARCH ECOLOGIST

FAREWELL: We said farewell to several great SE CASC staff in 2023-24: Ryan Boyles joined a detail appointment at the National CASC. Kristen Fontana is now a Program Manager with NC State University. Casey Thornbrugh is now the Director of the Wōpanāak Language Reclamation Project. Alex Loomis has moved to a full-time position on rare plant conservation in Hawai'i.

Highlights from 2023-24



Interior Secretary Deb Haaland Visits SE CASC

Haaland and USGS Director Dave Applegate met with students, scientists, and community partners

The Southeast CASC welcomed a visit from Secretary of the Interior Deb Haaland, and USGS Director Dave Applegate in February 2024. Secretary Haaland and Director Applegate joined detailed conversations about climate adaptation in the Southeast with students, scientists, and community partners affiliated with the SE CASC.

The morning began with a roundtable discussion where community partner and scientist pairs provided examples of how the SE CASC responds to the immediate needs of partners on-the-ground.

We then shifted focus to the equity of program delivery with partners from Puerto Rico and the Eastern Band of Cherokee Indians. Lastly, three graduate students representing natural, physical, and cultural resources spoke to their projects and the support they have received during their studies by the SE CASC.

NC State University Chancellor Randy Woodson then opened a reception with remarks on the importance of climate adaptation and the significant progress partnerships with the Department of the Interior have made in protecting our natural heritage for generations to come. Secretary Haaland and Director Applegate met with different groups around the reception to learn more about their work with the SE CASC.

We are thrilled that Secretary Haaland and Director Applegate prioritized a visit to the Southeast CASC and for the opportunity for our students, partners, and scientists to share their stories of success towards climate adaptation in the Southeast.



THE ROUNDTABLE PARTICIPANTS WITH SECRETARY HAALAND AND DIRECTOR APPELGATE.

2023-2024 Global Change Research Fellows

We hosted our 14th cohort of Global Change Research Fellows from interdisciplinary backgrounds. These future leaders met in August 2024 in Columbia, NC for a week-long field intensive that prepared them for a year of collaborative climate adaptation research.



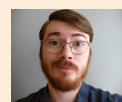
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DARIAN NG
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MIKIAH CARVER-MCGINN
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NATHAN SCHUNK
Department of Forestry & Environmental Resources



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Department of Parks, Recreation & Tourism Management



LAURA A. TAYLOR
Department of Applied Ecology



JENERO KNOWLES
Department of Civil, Construction & Environmental Engineering



THOMAS THELEN
Department of Civil, Construction & Environmental Engineering



KURT NAQUIN
Department of Forestry & Environmental Resources

The most rewarding part has been learning from the knowledge and experience of the other Global



MYLEIGH NEILL
Department of Marine, Earth & Atmospheric Sciences

Change Research Fellows. The diversity of my cohort has given me valuable perspectives on climate change and adaptation outside of what I see in my own field. The program has also exposed me to a variety of regional experts ranging from climate change mitigation and adaptation to environmental justice that I could connect with throughout graduate school and into my career.”

– Myleigh Neill, 2023-24 Global Change Research Fellow

A New Cycle of Useful & Used Science

Welcome to the Southeast CASC Cycle 3 Consortium

Every five years, climate adaptation science centers undergo a “recompete” process that renews the center, funding priorities, and members of the Consortium. In 2023, the Southeast CASC successfully recompeted for its third cycle, providing the opportunity to expand the Consortium network with five new institutions.

UNIVERSITY OF ARKANSAS AT MONTICELLO:

At the most inland edge of the Southeast footprint, UAM represents the diversity of landscapes unique to the Mississippi river delta.

» Consortium PI: Mike Blazier

UNITED SOUTH AND EASTERN TRIBES:

USET is a non-profit, inter-Tribal organization serving 33 federally recognized Tribal Nations from the Northeastern Woodlands to the Everglades and across the Gulf of Mexico.

» Consortium PI: Jerry Pardilla

SAVANNAH STATE UNIVERSITY: The first and oldest public HBCU in the state of Georgia, SSU expands the Consortium to the coastline.

» Consortium PI: Dwight Ebanks

UNIVERSITY OF PUERTO RICO AT RIO PIEDRAS:

As the oldest and largest higher learning institution in the Caribbean, UPR-RP is a Minority-Serving Institution

(MSI) that brings Caribbean-focused expertise to the Consortium.

» Consortium PI: Carla Restrepo

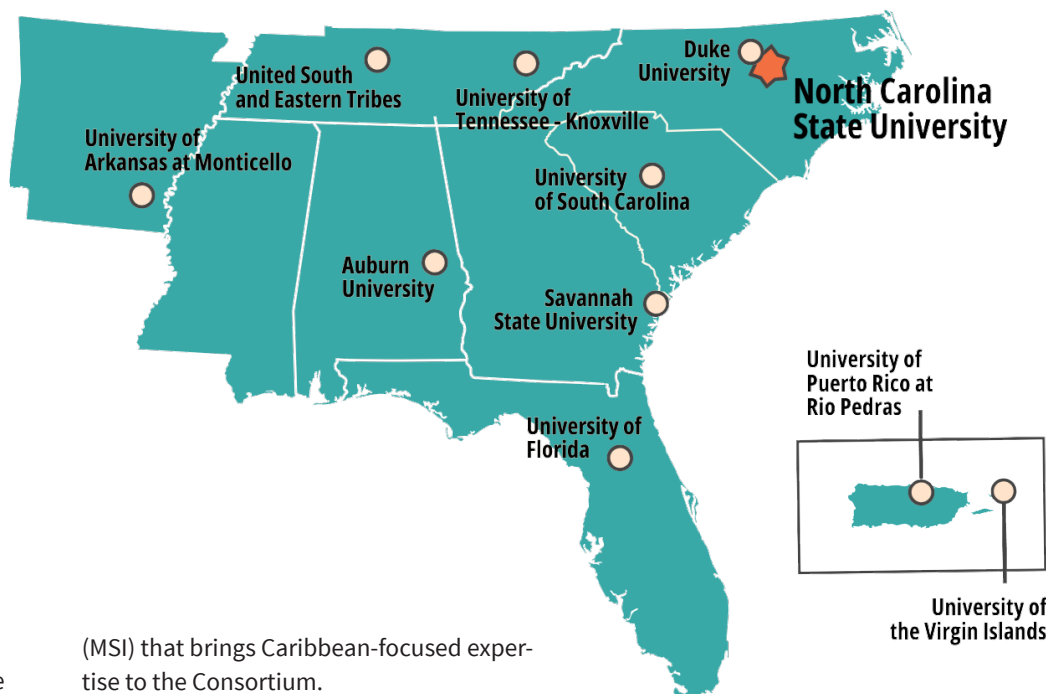
UNIVERSITY OF THE VIRGIN ISLANDS:

The only HBCU outside of the continental United States, UVI is a land grant institution and represents the forefront of the Southeast.

» Consortium PI: Kim Waddell

ORIGINAL CONSORTIUM UNIVERSITY PRINCIPAL INVESTIGATORS:

- » Paul Armsworth, University of Tennessee
- » Wendy Graham, University of Florida
- » John Kupfer, University of South Carolina
- » Karen McNeal, Auburn University
- » Lydia Olander, Duke University



Introducing our Research Affiliate Network

Research Affiliates are non-academic and academic specialists, researchers, and practitioners whose work and expertise align with the mission of the SE CASC. This network of potential collaborators from our Consortium institutions is accessible to anyone interested in furthering useful research in the Southeast.

Scan the QR code at right to find your next collaborator or apply to become a Research Affiliate.



go.ncsu.edu/secasc-research-affiliates

Outreach & Engagement

Building Community & Collaborations

The SE CASC continued to meet our partners where they are by contributing to meetings and convenings across the Southeast. A selection of these meetings include:



CARIBBEAN CONSERVATION COMMUNITY OF PRACTICE: We continue to partner with USFWS colleagues to cultivate conversations within the group, and participated in the second in-person gathering in Arecibo, PR on March 20-21, 2024. These connections strengthen existing and facilitate future collaborations in Puerto Rico and USVI. We have also developed a landing page for this community and a listserv.



CAMPUS CLIMATE COLLABORATIONS: NCSU supports a great number of climate-related initiatives that align with SE CASC research, partnerships, and student support. We work with campus colleagues to coordinate webinars across campus and to collaborate on aspects of student professional development such as career panels.



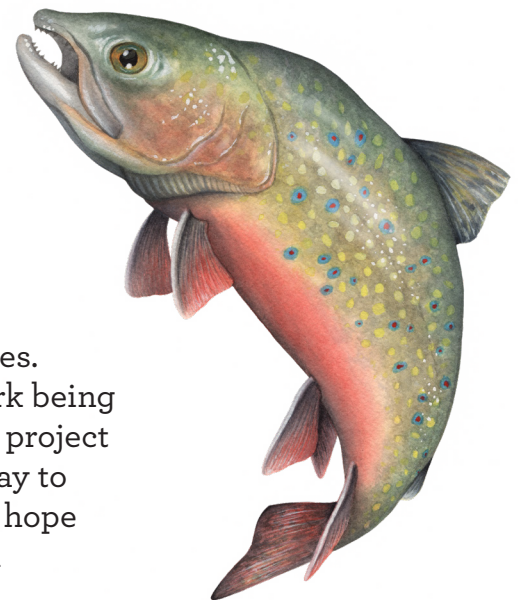
TRIBAL CLIMATE RESILIENCE CAMP: We were excited that the USET organizers decided to host TCRC in Durham, NC in 2024. We supported the event by organizing materials, providing photography services, note taking, participating in breakout sessions, and our MSI science communication interns (above) staffed registration tables and assisted with breakout sessions.

Communicating Adaptation Through Art

We commissioned former fellow and current science illustrator, Emily Nastase to create six illustrations of culturally significant species in the Southeast. Read more about Emily at <https://go.ncsu.edu/secasc-emily-art>.

In my time as a Global Change Research Fellow, I came to realize how the Southeast has some truly unique and rare species. I illustrated a few of these species to highlight the amazing work being done at the SE CASC and to be able to share that research with project partners and the public. I believe illustrations are a beautiful way to communicate scientific information. When others see my art, I hope they will appreciate these species like I do or maybe even learn something new.”

– **Emily Nastase**, 2022-23 Global Change Research Fellow



LOOKING FORWARD

Our next regional Science Symposium is slated for Fall 2025. The Center will also announce new initiatives in the Caribbean in the coming year that are designed to increase workforce capacity for climate adaptation. The future is bright for climate adaptation in the Southeast!

Looking for a tool, dataset, or more information?
Contact our SE CASC staff or see our website.

STAFF: secasc.ncsu.edu/home/about/people/staff/

DATA & TOOLS: secasc.ncsu.edu/resources/data-tools/

RESOURCES: secasc.ncsu.edu/resources/

SCIENCE PROJECTS:

secasc.ncsu.edu/science/science-projects-by-fiscal-year/