CLIMATE ADAPTATION LEADERSHIP AWARD
for natural resources

2021 WINNERS

2021

WINNERS

Federal: T. Douglas Beard, Jr., Chief of the National Climate Adaptation Science Centers, U.S. Geological Survey

Doug established, defined, and grew the network of National and Regional Climate Adaptation Science Centers (NCASC, CASCs). With an initial Congressional appropriation, he took the stakeholder-developed blueprint for a network and made it a reality, selecting university partners, hiring senior staff, and developing the internal structures and controls for a growing organization. CASCs are now an established feature of the local, regional, and national conservation scene due to the vision, mandate, and flexibility Doug provided. He served as acting Associate Director at USGS for a period far longer than normal details, at a time when the agency was in a difficult budget and political transition. Over the past four years, Doug was the primary interface with senior USGS and DOI officials, at a time when the program was under intense scrutiny and was proposed for elimination. Doug's ability to draw and leverage the support of partners and stakeholders at this critical time resulted in a major budget increase for the network, and expansion from 8 to 9 regional centers, a long-sought goal. Aside from his day job, Doug has been president of the World Fisheries Congress, and has fostered a research program about global fisheries and climate. In addition, Doug has actively recruited to diversify the NCASC/CASC workforce and has a “family-first” approach to his employees that enables reasonable work-life balance.

Broad Partnership: Northeast Regional Invasive Species & Climate Change Management Network (NE RISCC Management Network)

Translating information between scientists and managers: RISCC aims to translate science for managers by synthesizing invasive species and climate change research to highlight key management-relevant aspects. RISCC aims to share manager needs and knowledge by synthesizing input gained through surveys, discussions, and workshops.

Building stronger networks of scientists, managers, and policymakers: RISCC aims to build a stronger network by facilitating opportunities for communication and cooperation between stakeholders, including co-production of knowledge

Addressing stakeholder needs through original research: RISCC aims to address priority science needs of our stakeholders by conducting research and developing new tools on invasive species and climate change

NE RISCC is supported by the Northeast Climate Adaptation Science Center, which has been in existence for eight years and is one of eight regional Centers funded by the USGS. NE RISCC exemplifies how to

engage stakeholders on important topics related to climate adaptation, create, and expand networks of managers, scientists, and citizens, and to effect important change in a sustainable fashion.

Individual Achievement: Chris Swanston, Forest Service Climate Advisor

Chris Swanston has served as the Director of the Northern Institute of Applied Climate Science (NIACS) since 2008 and as the Director of the USDA Northern Forests Climate Hub since 2014. Chris has been actively working to promote climate adaptation in natural resources since his start at NIACS in 2008 and has transformed the field during this time. NIACS is the most effective provider of climate change outreach and technical assistance in the Forest Service and the USDA. Chris's leadership has helped equip land managers around the country with the information they need to understand climate change risk, as well as the tools, resources, and support to act and adapt.

Because of his extensive leadership in promoting climate adaptation at a national level, Chris was selected in May 2021 to serve as the Forest Service Climate Advisor and Acting Director of the USDA Forest Service's Office of Sustainability and Climate, where he is working to coordinate the agency's national climate change efforts and promote adaptation across the 192 million acres of Forest Service National Forests and Grasslands and beyond.

HONORABLE MENTIONS

Federal: Erik Beever, U.S. Geological Survey

Dr. Beever developed and leads a large collaborative network across the country and world studying pikas (*Ochotona* spp.); the network is one of the largest in the US to explicitly monitor and investigate how any mammal species responds to contemporary climate change at species, population, and individual levels. Pikas' life history and physiology make them sensitive climate change-associated stressors, but their talus habitat generally has not changed in extent or spatial arrangement over ecological time scales. The network can thus identify and test mechanisms of *how* and *why* climate acts on species without the confounding effects of habitat loss or (typically) other anthropogenic disturbances. More broadly, this work catapulted him into working extensively on the topics of ecosystem transformations and all species' adaptive capacity, across the country and world. Specifically, the network focuses on developing mechanism-based understanding and then predictions about how well species can cope with and accommodate climate change. In turn, these can be converted into testable climate-adaptation management actions. The Network began in 1994 and Erik and his collaborators (e.g., at Federal and State agencies, universities, NGOs) have produced > 33,000 records of pika detections throughout 10 western-US states and two Canadian provinces. Because the network includes scientists from multiple disciplines (e.g., ecohydrology, climatology, population modeling, genetics, paleoecology, hydrology, and geology) the team can develop and address questions in more-realistic ways. The >50 climate change-based publications produced by the network tackle questions about connectivity of montane areas for diverse species, sufficiency of protected areas under future climates, effects of climate variability and extremes, non-stationarity of climate effects on species (and selection of local-scale climate-adaptation actions), and the mechanisms underlying distribution shifts, and patterns of occupancy and abundance. Erik recently

added climate change-focused work on North American porcupines and least chipmunks to the network. As a member of the IUCN Climate Change Specialist Group, Erik works with international colleagues to answer analogous questions globally.

Broad Partnerships: Developing Capacity for Integrated Community Conservation and Resilience, Gulf of Mexico Alliance

The Gulf of Mexico Alliance brings together state and federal agencies, academics, non-profits, and industry to support implementation of adaptive and resilient coastal management at the local community and regional scale. Gulf Coast communities are deeply connected to the natural environment and the ways it influences their sense of place. Coastal habitats, climate, natural hazards, and wildlife conservation needs all shape the planning that takes place within a community. And, while the built and natural environment are interdependent, planning activities have rarely been connected. Adopting a forward-thinking approach to community and conservation planning, this project works to identify habitat and wildlife species data that can be integrated into community resilience and hazard planning efforts for two Gulf Coast cities. Specifically, habitat and wildlife conservation data from the Southeast Conservation Blueprint are being added to the Community Health and Resource Management community planning tool. The Gulf of Mexico Alliance, U.S. Fish & Wildlife Service, and Texas AgriLife Extension have partnered to work with the cities of Biloxi, MS and Foley, AL on this project. These cities recognize the importance of reducing impacts to habitats/species but need additional capacity to incorporate conservation data into their planning.

We are completing pilot projects with both communities to address specific planning needs. Partners and stakeholders will provide input during several virtual workshops. Stakeholders will be able to visualize habitat and wildlife conservation data along with population demographics, critical infrastructure, and other data important to community planning. These updates will be used to support ongoing and future work related to community training, planning support, and project identification for issues such as rapid development pressure, coastal flooding concerns from storms and sea level rise, and stormwater management issues.

Individual Achievement: April Taylor, Tribal Liaison and Sustainability Scientist, The Chickasaw Nation and the South Central Climate Adaptation Science Center

The South Central Climate Adaptation Science Center (CASC) provides natural and cultural resources managers with the science, tools, and information they need to address the impacts of climate variability and change on their areas of responsibility. Ms. April Taylor, a Chickasaw scientist, was hired in 2012 to serve as our first full-time Tribal Liaison and Sustainability Scientist. Her job duties include:

Communicating climate change-related science to natural and cultural resource managers at Tribes, Pueblos, and inter-tribal organizations based on relationships of trust among Tribal nations and with Tribal officials, elders, and youth;

Ensuring that South Central CASC research is framed holistically and inclusively so as to encompass the themes of environmental sustainability, traditional knowledge, and exposure of Indigenous peoples to the impacts of climate change; and working with Tribal education programs to build the scientific capacity and workforce of Tribal nations within the context of climate change adaptation and resilience.

Within these duties, she has served our Tribal partners through all seven National Fish, Wildlife, and Plants Climate Adaptation Strategy goals over the past eight years. She has brought Native voices to the table in all our South Central CASC meetings, changing how we do business and ensuring broader representation in everything we do.