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SOUTH CENTRAL

CLIMATE ADAPTATION SCIENCE CENTER



Feature Story: Dr. Renee McPherson Honored with Charles E. Anderson Award

Dr. McPherson received the Charles E. Anderson Award at the 2019 American Meteorological Society Conference in Phoenix, AZ for her outstanding and extraordinary contributions to Science Technology Engineering & Math (STEM) research. Over the years, Dr. McPherson has strived to broaden the participation of underrepresented individuals, especially women and Native Americans, in the scientific field.

The Charles E. Anderson Award is earned by an individual to recognize their outstanding contributions of promoting diversity in the scientific community, including the atmospheric sciences, through the use of community service and education.

Research Highlight

Global Relation of Mangrove Canopy Height to Frequency of Geophysical Variables



A recent article published in *Nature Geoscience* describes the work performed by researchers of the South Central CASC. This research advances the determination of robust quantitative relationships between forest canopy height and the magnitude of carbon storage in coastal regions. This work applied a new approach using remote sensing techniques that allowed not only the accurate estimation of canopy height using radar and laser-based systems, but also the assessment of the relatable impact of rainfall, temperature and cyclone frequency on tree height; the tallest (68.2 m) mangrove trees were found in Gabon, Africa, which is an area not impacted by cyclones and with low human population density.

For further information, click [here](#).

Workshops & Conferences

Climate Training Workshop for Tribes

The Muscogee (Creek) Nation hosted a climate training workshop aimed at Tribal professionals, March 11-12, 2019 in Okmulgee, Oklahoma. For more information on the training or questions about upcoming workshops, contact April Taylor at: april.taylor@chickasaw.net.

2019 National Adaptation Forum

Dr. Derek Rosendahl will be holding a training session at the 2019 National Adaptation Forum in Madison Wisconsin in April. During this training session, Dr. Rosendahl will focus on how decision makers can interpret climate projections for future management decisions. Researchers and professionals from related fields are welcome to attend as this training and climate data can be applied to solve real world problems.

Follow this [link](#) for further information in this training session.

Staff & Student Highlights

Department of Geography Graduate Student
Competes in 3 Minute Thesis Competition



Paulina Cwik did an outstanding job competing in the 3 Minute Thesis Competition at the University of Oklahoma!

During her presentation, she discussed her thesis pertaining to the recognition and description of large-scale atmospheric patterns associated with tornado outbreak occurrences. Identifying these patterns requires analysis of atmospheric fields, such as geopotential heights, temperatures or precipitation that occurs during or shortly before historic outbreaks. The idea is to find patterns that occurred most often and use this information can in future tornado outbreak prediction efforts. Way to go Paulina!

SC CASC Student Accepted into Growing Native STEM Business in the West Program



We are excited to announce that Aaron Fournier has been accepted into the American Indian Science and Engineering Society's Growing Native STEM Business in the West program. This program aims to increase the amount of Native STEM businesses through culturally relevant professional development training. From November 2018 until August 2019, Aaron will participate in three workshops and four webinars, all directed toward developing business ideas and growing skill-sets. Excellent job, Aaron!

Partner's Corner

Southern Climate Impacts Planning Program

Southern Climate Impacts Planning Program researchers at Louisiana State University published a new study on the climatology of hourly precipitation in Louisiana. The study, *Hourly rainfall climatology of Louisiana*, which appeared in the November 2018 Theoretical and Applied Climatology journal, investigates possible changes in the hourly precipitation distribution, and links winter Gulf of Mexico sea surface temperatures to the frequency of hours with precipitation.

The study can be found [here](#).

USDA Southern Plains Climate Hub



January 5, 2019

Participants at the 'Wildfire Suppression Through Prescribed Fire' training school take part in burning a buffer next to the Cheyenne and Arapaho headquarters in Concho, OK.

On January 5, 2019 the USDA Southern Plains Climate Hub, in partnership with the Cheyenne and Arapaho Tribes of Oklahoma, the Oklahoma Cattlemen's Association, Oklahoma State University, Redlands Community College, the Noble Research Institute, The Nature Conservancy of Oklahoma, the Oklahoma Prescribed Fire Council, and the USDA Natural Resources Conservation Service, held its first "Wildfire Suppression Through Prescribed Fire" training school at Concho, OK. Over 70 firefighters and other officials were in attendance, representing 14 fire departments and four burn associations. Attendees took part in both classroom educational work and in a live burn/black line demonstration next to the Cheyenne and Arapaho Tribes headquarters. This was the first in a series of training schools and workshops in the Southern Plains region that the Climate Hub and its partners will facilitate.

