

Environment

WCU & USFS Collaboration Provides Students Opportunity to Study Climate Change

Faculty Diane Styers (dmstyers@wcu.edu) and Ben Tanner (btanner@email.wcu.edu) along with four Natural Resource Conservation & Management and three geology undergraduate students engaged in a collaborative project with Katie Greenberg (kgreenberg@fs.fed.us) to assess climate impacts on isolated wetlands at a long-term study site within Ocala National Forest in Florida. The team obtained organic sediment cores from study ponds, and tree ring cores from trees in the surrounding longleaf pine sandhills, to examine historic climate and fire histories using 21 years of weather and pond hydrology data to develop signature of drought and fire. We expect this research will allow the 21 year record of environmental change to be extended back hundreds, potentially thousands, of years. This will allow us to put current, observed environmental change at the site into context of past environmental changes to allow for better prediction of future climate trajectories. Preliminary results from this work were recently presented by a student at the Geological Society of America Annual Meeting in Denver, CO, and we are currently preparing two manuscripts from this work for submission to *The Holocene* and *Southeastern Geology* in 2017.

Assistant Professor, Diane Styers commented on the collaboration, stating that “the primary value of this project is that it provides learning experiences for students outside of the classroom. Such group investigative projects promote critical thinking, foster collaborative efforts between students and community partners, and provide opportunities for students to apply theoretical knowledge to real-world problems and challenges in natural resource management. In my opinion, it's the most effective and rewarding way of teaching.”

If you would like your community engagement work recognized through the *STAR Engagement Projects* program, please submit your proposals through the [Community-based Activities Faculty Survey](#) administered annually in the spring semester from early April – late May.

