

## Keynote & Plenary Speakers

### Friday Night Keynote Speaker: John Zak

John Zak, Associate Dean and Professor of Soil Biology at Texas Tech University will be the Keynote Speaker at our opening dinner on Friday evening. Zak's core research focuses on the diversity and structure of soil bacterial and fungal communities and their role in regulating the functioning of natural and managed arid ecosystems. In each of the projects, Zak's lab is focused on understanding how soil microbial dynamics and processes can be self-sustaining such that these systems are sustainable for future generations.

Zak recently undertook the role of TTU's Principal Investigator for the South- Central Climate Change Science Center which seeks to better understand the impact of global climate change on human and natural ecosystems across the South Central U.S. Zak's research provides critical information that can be used by all of us to address water policy issues, to develop conservation, management, and restoration strategies, and to help formulate economic responses that are linked to projections of precipitation patterns and temperature.

In his keynote address, Zak will highlight his work on arid ecosystems and climate change. He will challenge conference participants to think about the impact of temperature and precipitation on terrestrial and aquatic ecosystems as we seek to manage and restore critical and/or degraded habitats in the State of Texas.

### Saturday Morning Plenary Speakers: Christine Hawkes & Jacquelyn Duke

Christine Hawkes of the University of Texas at Austin and Jacquelyn Duke of Baylor University will address the TXSER/TRA 2013 conference during the Saturday morning opening plenary session. Hawkes and Duke bring to the conference expertise in terrestrial and aquatic systems ecology.

Hawkes, Associate Professor of Integrative Biology in the College of Natural Resources at The University of Texas at Austin, focuses her current research on basic and applied aspects of plant-microbe interactions and their role in communities and ecosystems. One of her main areas of study is in examining how soil and microbial legacies affect the success of efforts to restore native plant communities and basic ecological functions such as nutrient cycling. She also works to understand how microbial communities can be used as a mechanism for enhancing ecosystem resilience and as a tool for restoration.

Duke, Senior Lecturer in Biology at Baylor University, has focused her research on hydrologic connections among streams (aquatic zone), stream bed and banks (hyporheic zone), and stream bank vegetation (riparian zone). Duke's research interests cover intermittent stream and forest ecology, and the highly productive and ecologically important riparian and hyporheic stream zones where much biogeochemical cycling takes place. Duke's life-long fascination with streams and the "dynamic" essence that allows them to go from bone-dry creek beds to raging torrents overnight, translates to an enthusiasm for exploring biology and stream dynamics through the fresh eyes of her students.

Hawkes and Duke will set the stage for lively presentations and discussions on a host of restoration, management, and conservation issues during concurrent sessions throughout the day.