

# PHENOLOGY RESEARCH AND OBSERVATIONS OF SOUTHWEST ECOSYSTEMS SYMPOSIUM (PROSE)

17 October 2014

Catalina Conference Room (2<sup>nd</sup> Floor, Room 253)

USGS Environment and Natural Resources Building (ENRB), 520 N. Park Ave,  
University of Arizona, Tucson, AZ



## **8:00-8:30: Registration**

## **8:30-8:45: Welcome**

PROSE Program Committee (Michaela Buenemann, Theresa Crimmins, Joel Sankey, Jessica Walker, and Cynthia Wallace) & Jake Weltzin (Executive Director, USA-NPN)

## **8:45-9:30: Keynote by Dr. Stephen Jackson**

Translational Climate Science: Challenges and Opportunities

## **9:30-9:50: P. L. Warren and L. Barnett: Making Meaning out of Science: Using Nature's Notebook to Engage Citizens in Exciting and Relevant Research**

## **9:50-10:30: Poster Introductions**

M. L. Barnes, M. S. Moran, R. L. Scott, T. E. Kolb, G. E. Ponce-Campos, and B. Mitra:  
Patterns of Vegetation Response to Climate Variability Across the American Southwest

Ursula Basinger, Jenninifer R. Gremer, Travis E. Huxman, and D. Lawrence Venable:  
Temperature-Driven Seedling Drought Response in a Community of Sonoran Desert  
Winter Annual Plants

Hanen Dhaou and Netij Ben Mechlia: Assessment of Drought Severity and Impact on  
Agriculture in the Arid Regions

Jesse Dickinson, Randall Hanson, and Steve Predmore: Software for Assessing the Relations  
Between Variable Climatic and Hydrologic Time Series

Christopher Jarchow, Pamela L. Nagler, Edward P. Glenn, Martha Gomez, and Jeff Milliken:  
Monitoring the Lower Colorado River's Arid Delta in Mexico by Measuring the Response  
in Vegetation and Evapotranspiration

Amí L. Kidder, Shirley A. Papuga, Dave D. Breshears, and Darin J. Law: Spatial Distribution  
of the Endangered Pima Pineapple Cactus under Current and Projected Climate  
Conditions

Amí L. Kidder, Shirley A. Papuga, David D. Breshears, and Darin Law: Understanding  
Ecohydrological Conditions for Success of Pima Pineapple Cactus Distribution and

## Phenology

Adam Killebrew, Shirley Papuga, Paul Brown, and Jim Walworth: Digital Image-Derived Greenness as an Indicator of Phenological Demands for Pecan Water Use

Natasha Krell, Shirley Papuga, Evan Kipnis, and Krystine Nelson: Dynamic Pulse-Driven Flowering Phenology in a Semiarid Shrubland

Erika Rocío Reyes Gonzalez, Leticia Gómez Mendoza, and Atzin Elihu Calvillo Arriola: The Phenological Monitoring for Climate Change Adaptation in the Monarch Butterfly Biosphere Reserve in Mexico.

Daniel Wilcox, Shirley A. Papuga, and Tyson Swetnam: Understory Growth Dynamics Following High-Severity Burn in a Mixed-Conifer Forest

Rong Yu, Ben L. Ruddell, Minseok Kang, and Dan Childers: Sensitivity Model of Eco-Climatic Systems to Climate Change and Phenology Using Dynamical Process Networks

### **10:30-11:00: Posters & Break**

**11:00-11:20:** Joel B. Sankey: Ground-Based Lidar Remote Sensing of Vegetation Structure and Phenology

**11:20-11:40:** Theresa M. Crimmins, Michael A. Crimmins, and C. David Bertelsen: Novel Climate-Driven Species Composition Shifts Across an Elevation Gradient

### **11:45-13:00: Lunch**

**13:00-13:20:** E. H. J. Gutierrez, T. Joy, K. Ernst, K. Walker, and M. Riehle: Intra-Seasonal Trends in Population Fitness Characteristics of the Dengue Vector, the *Aedes aegypti* Mosquito

**13:20-13:40:** Temuulen "Teki" Sankey, Brett Dickson, Steve Sesnie, Ophelia Wang, and Luke Zachmann: WorldView-2 High Spatial Resolution Improves Desert Invasive Plant Detection

### **13:40-14:10: Posters & Break**

**14:10-14:30:** William D. Peachey: The Relative Effects of Herbivores & Weather Events Upon the Reproductive Production of the Saguaro Cactus (*Carnegiea gigantea*)

**14:30-14:50:** Dawn M. Browning and Craig Tweedie: Phenocams as a Proxy for Primary Productivity and Mode of Discovery in an Arid Grassland Ecosystem

### **15:00: Student Poster Awards Presentation**