Andrew T. Tredennick

CONTACT INFORMATION

Postdoctoral Fellow
Department of Wildland Resources and
The Ecology Center, Utah State University

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RESEARCH INTERESTS

stability of populations, communities, and ecosystems; data–model assimilation; ecology of savannas and forests; coexistence of species and functional groups; ecological forecasting

EDUCATION

Colorado State University, Fort Collins, CO
Doctor of Philosophy ECOLOGY **2014**

Texas Tech University, Lubbock, TX
Bachelor of Sciences BIOLOGY **2006**

PROFESSIONAL EXPERIENCE

Utah State University, Dept. of Wildland Resources, Logan, UT **2014 – Pres.**
Postdoctoral Fellow

Colorado State University, Natural Resource Ecology Lab, Ft. Collins, CO **2011 – 2014**
Graduate Research Fellow

Colorado State University, Natural Resource Ecology Lab, Ft. Collins, CO **2009 – 2011**
Graduate Research Assistant

USFS Rocky Mountain Research Station, Ft. Collins, CO **2009**
Research Assistant

Colorado State University, FRWS, Ft. Collins, CO **2008**
Graduate Teaching Assistant

FELLOWSHIPS AND AWARDS

NSF Postdoctoral Research Fellowship in Biology **2014**
1st Place Oral Presentation, Front Range Student Ecology Symp. **2013**
NSF FORECAST Research Coordination Network Travel Award **2012**
Sustainability Leadership Fellow, School of Global Environmental Sustainability, CSU **2012**
NASA Earth and Space Science Graduate Fellowship **2011**
James E. Ellis Memorial Scholarship, Natural Resource Ecology Lab **2010**
NSF Graduate K-12 Fellowship, Natural Resource Ecology Lab **2009**

PUBLICATIONS

Tredennick, A.T., Hanan, N.P. Effects of tree harvest on the stable-state dynamics of savanna and forest. in revision at *American Naturalist*

Hanan, N. P., **Tredennick, A.T.**, Prihodko, L., Bucini, G., and Dohn, J.. 2014. Analysis of stable states in global savannas: Is the CART pulling the horse? *Global Ecology and Biogeography*

Tredennick, A. T., L. P. Bentley, and N. P. Hanan. 2013. Allometric convergence in savanna trees and implications for the use of plant scaling models in variable ecosystems. *PLoS One* 8(3):e58241

Rice, J., **Tredennick, A.T.**, and Joyce, L.. 2011. The climate of the Shoshone National Forest: A synthesis of past changes, future projections, and ecosystem implications. USDA National Forest Service General Technical Report 264

Sutton, A.E., Dohn, J., Loyd, K., **Tredennick, A.T.**, Bucini, G., Solrzano, A, Prihodko, L. and Hanan, N.P. 2010. Does warming increase the risk of civil war in Africa? *Proceedings of the National Academy of Sciences* 107(25):E102

Competitive Funding

External: $297,000
Internal: $16,000

"Diversity-stability relationships and coexistence: new theory and empirical tests", NSF Postdoctoral Research Fellowship in Biology, $207,000 (2014-2017)

"Effective Science Communication and Public Relations at NREL through EcoPress," Natural Resource Ecology Lab, $6,000 (Co-I) (2013)

"NESSF: Fuelwood, Savannas, and Climate Change: Integrating Modeling, Field Experimentation, and Optical and Radar Remote Sensing," NASA, $90,000 (2011-2014)

"Building a WCNR 'Partnership for International Research and Education' in African Savannas: Undergraduate and Graduate Field-Based Education in Mali, West Africa," Warner College of Natural Resources, $10,000 (PI–Hanan; collaborative proposal of the Hanan lab group) (2010)

Teaching Experience

Colorado State University **2013**
Plant Ecology
Guest Lecture on Tree-Grass Coexistence

Colorado State University **2012**
NREL Skills for Undergraduate Participation in Ecological Research
Data Analysis/Visualization Workshop Leader

Colorado State University **2011**
RS 351, Ecosystem Processes in a Chaning World
Co-Instructor

Colorado State University **2009, 2010, 2012**
RS 351, Wildland Ecosystems
Guest Lecture on Ecosystem Modeling

Irish Elementary School Ft. Collins, CO **2010-2011**
5th and 4th Grade Science and Advanced Science Program
NSF GK-12 Fellow

Colorado State University **2008**
RS 351, Wildland Ecosystems
Graduate Teaching Assistant