

Andrew T. Tredennick

POSTDOCTORAL RESEARCH ASSOCIATE · QUANTITATIVE ECOLOGIST

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Education

Colorado State University

PH.D. IN ECOLOGY

Fort Collins, CO

2014

Texas Tech University

B.S. IN BIOLOGY

Lubbock, TX

2006

Professional Appointments

Dept. of Wildland Resources, Utah State University

POSTDOCTORAL RESEARCH ASSOCIATE

Logan, UT

Aug. 2017 - PRESENT

Dept. of Wildland Resources, Utah State University

NSF POSTDOCTORAL FELLOW

Logan, UT

Aug. 2014 - July 2017

Natural Resource Ecology Lab, Colorado State University

NASA GRADUATE RESEARCH FELLOW

Fort Collins, CO

Aug. 2011 - May 2014

Natural Resource Ecology Lab, Colorado State University

GRADUATE RESEARCH ASSISTANT

Fort Collins, CO

Aug. 2009 - July 2011

U.S. Forest Service Rocky Mountain Research Station

RESEARCH ASSISTANT

Fort Collins, CO

Jan. 2009 - Aug. 2009

Dept. of Forest, Rangeland, and Watershed Stewardship, Colorado State University

GRADUATE TEACHING ASSISTANT

Fort Collins, CO

Aug. 2008 - Dec. 2008

Publications

The relationship between species richness and ecosystem variability is shaped by the mechanism of coexistence

TREDENNICK, A.T., P.B. ADLER, & F.R. ADLER

Ecology Letters

20(8):958-968 | 2017

Do we need demographic data to forecast plant population dynamics?

TREDENNICK, A.T., M.B. HOOTEN, & P.B. ADLER

Methods in Ecology & Evolution

8(5):541-551 | 2017

Environmental responses, not species interactions, determine synchrony of dominant species in semiarid grasslands

TREDENNICK, A.T., C. DE MAZANCOURT, M. LOREAU, & P.B. ADLER

Ecology

98(4):971-981 | 2017

Water and nitrogen uptake are better associated with resource availability than root biomass

KULMATISKI, A., P.B. ADLER, J.M. STARK, & A.T. TREDENNICK

Ecosphere

8(3):e01738 | 2017

Forecasting climate change impacts on plant populations over large spatial extents

TREDENNICK, A.T., M.B. HOOTEN, C.L. ALDRIDGE, C. HOMER, A.R. KLEINHESSELINK, & P.B. ADLER

Ecosphere

7(10):e01525 | 2016

Comment on "Worldwide evidence of a unimodal relationship between productivity and plant species richness"

TREDENNICK, A.T., P.B. ADLER, J.B. GRACE, W.S. HARPOLE, E.T. BORER, E.W. SEABLOOM, & 36 CO-AUTHORS

Science

35(6272):457a-457c | 2016

No effects of fire, large herbivores, and their interaction on regrowth of harvested trees in two West African savannas

TREDENNICK, A.T., M. KAREMBÉ, F. DEMBÉLÉ, J. DOHN, & N.P. HANAN

African Journal of Ecology
53(4):487-495 | 2015

Analysis of stable states in global savannas – a response to Staver and Hansen

HANAN, N.P., A.T. TREDENNICK, L. PRIHODKO, G. BUCINI, & J. DOHN

Global Ecology and Biogeography
24(8):988-989 | 2015

Effects of tree harvest on the stable-state dynamics of savanna and forest

TREDENNICK, A.T. & N.P. HANAN

The American Naturalist
5(185):E153-E165 | 2015

Analysis of stable states in global savannas: Is the CART pulling the horse?

HANAN, N.P., A.T. TREDENNICK, L. PRIHODKO, G. BUCINI, & J. DOHN

Global Ecology and Biogeography
23(3):259-263 | 2014

Allometric convergence in savanna trees and implications for the use of plant scaling models in variable ecosystems

TREDENNICK, A.T., L.P. BENTLEY, & N.P. HANAN

PLoS One
8(3):e58241 | 2013

The climate of the Shoshone National Forest: A synthesis of past changes, future projections, and ecosystem implications

RICE, J., A.T. TREDENNICK, & L. JOYCE

USFS General Technical Report
264 | 2011

Letter: Does warming increase the risk of civil war in Africa?

SUTTON, A.E., J. DOHN, K. LOYD, A.T. TREDENNICK, G. BUCINI, A. SOLRZANO, L. PRIHODKO, & N.P. HANAN

PNAS
107(25):E102 | 2010

Manuscripts in Review

Asynchrony among local communities stabilizes ecosystem function of metacommunities

WILCOX*, K.R., A.T. TREDENNICK*, S.E. KOERNER, E. GRMAN, L.M. HALLETT, M.L. AVOLIO, K.J. LA PIERRE, G.R. HOUSEMAN, F. ISBELL, D.S. JOHNSON, ET AL.

Ecology Letters
*Shared first authorship | In review

Iterative near-term ecological forecasting: Needs, opportunities, and challenges

DIETZE, M.C., A. FOX, L. BECK-JOHNSON, J.L. BETANCOURT, M.B. HOOTEN, C.S. JARNEVICH, T. KEITT, M.A. KENNEY, C.M. LANEY, L.G. LARSEN, H.W. LOESCHER, C.K. LUNCH, B. PIJANOWSKI, J.T. RANDERSON, E.K. READ, A.T. TREDENNICK, R. VARGAS, K.C. WEATHERS, & E.P. WHITE

PNAS
| In review

Honors & Awards

- 2015 **Travel Award**, NEON and Powell Center Workshop on 'Ecological Forecasting'
- 2014 **Postdoctoral Research Fellowship in Biology and Mathematics**, National Science Foundation
- 2013 **First Place Oral Presentation**, Front Range Student Ecology Symposium
- 2012 **Travel Award**, NSF FORECAST Research Coordination Network Meeting
- 2012 **Sustainability Leadership Fellow**, School of Global Environmental Sustainability, Colorado State University
- 2011 **Earth and Space Science Graduate Research Fellowship**, NASA
- 2010 **James E. Ellis Memorial Scholarship**, Natural Resource Ecology Lab, Colorado State University
- 2009 **NSF Graduate K-12 Fellowship**, Natural Resource Ecology Lab, Colorado State University