

# KRISTINA J. ANDERSON-TEIXEIRA

(Formerly Kristina J. Anderson)

University of Illinois at Urbana-Champaign

Institute for Genomic Biology, room 1400

1206 W. Gregory Dr.; Urbana, IL 61801

(505) 270-5026

kateixei@uiuc.edu

## RESEARCH INTERESTS

Greenhouse gas effects of land use change; carbon cycling in terrestrial ecosystems; sustainability of biofuels; ecosystem development/ succession; effects of climate & climate change on ecological systems; Metabolic Theory of Ecology; theoretical ecology

## EDUCATION

Ph.D. Biology (with distinction); University of New Mexico. (Aug. 2002-Jan. 2007).

Dissertation: *Rates of change in ecosystem and community properties during succession*

Committee: James H. Brown (chair), Scott L. Collins, Bruce T. Milne, Peter M. Vitousek

B.S. Biology (H) *cum laude*; Wheaton College, Wheaton, IL. (Aug. 1998-May 2002).

Minor: Chemistry

## PROFESSIONAL EXPERIENCE

Postdoctoral Associate, Energy Biosciences Institute, University of Illinois at Urbana-Champaign (Feb. 2008- present). Sponsor: Evan H. DeLucia

Visiting Postdoctoral Associate, Institute for Genomic Biology, University of Illinois at Urbana-Champaign (Aug. 2007- Jan. 2008). Sponsor: Evan H. DeLucia

Postdoctoral Associate, Biology, University of New Mexico. (Feb. 2007-Jan. 2008)  
Sponsor: Marcy Litvak

Research/ Teaching Assistant, University of New Mexico. (Aug. 2002 – Jan. 2007)

Biological Field Technician, USFS, threatened bird surveys (Summer 2002)

Editorial Assistant, Dr. Fred Van Dyke, Wheaton College (Fall 2001)

Publication: Van Dyke, F. 2002. *Conservation Biology: Foundations, Concepts, Applications*.

WCB/ McGraw Hill Publishers, Dubuque, Iowa.

Biology Lab Assistant, Wheaton College (Spring 2001)

## AWARDS & HONORS

Honorable mention, Ecological Society of America Biogeosciences Junior Scientist Outstanding Publication (Elizabeth Sulzman) Award (2008)

Student Award for Innovation in Informatics, University of New Mexico (2007; \$250)

Fellowship, Graduate Research Program in Ecological Complexity, University of New Mexico (Aug. 2002- July 2003, Jan. 2004- July 2006)

University of New Mexico Department of Biology Grove Summer Scholarship (2006; \$3000)

NSF Graduate Research Fellowship honorable mention (2003)

## PUBLICATIONS

- Anderson-Teixeira K.J.**, Davis S.C. & DeLucia E.H. (in prep). Quantifying the greenhouse gas effects of biofuels-related land use change. *Science*.
- Davis, S. C., A. Yannarell, M. Masters, **K.J. Anderson-Teixeira**, J. Drake, R. Darmody, R. Mackie, M. David and E. H. DeLucia (2009) Restoration of soil organic carbon with cultivation of perennial biofuel crops. *In preparation*
- Anderson-Teixeira, K. J.**, and M. Litvak. (in prep). Carbon flux and storage across a climatic gradient in New Mexico. *Global Change Biology*
- Anderson-Teixeira K.J.** & DeLucia E.H. (in review). The Greenhouse Gas Value of Ecosystems. *Proceedings of the National Academy of Sciences of the United States of America*.
- Anderson-Teixeira K.J.**, Savage V.M., Allen A.P. & Gillooly J. (2009). Allometry and Metabolic Scaling in Ecology. *Encyclopedia of Life Sciences*, in press.
- Anderson-Teixeira K.J.**, Davis S.C., Masters M.D. & DeLucia E.H. (2009). Changes in soil organic carbon under biofuel crops. *GCB Bioenergy*, 1, 75-96.
- Davis S.C., **Anderson-Teixeira K.J.** & DeLucia E.H. (2009). Life-cycle analysis and the ecology of biofuels. *Trends in Plant Science*, 14, 140-146.
- Anderson-Teixeira, K.J.**, Vitousek, P.M., and Brown, J.H. (2008). Amplified temperature dependence in ecosystems developing on the lava flows of Mauna Loa, Hawaii. *PNAS*, 105(1), 228-233.
- Anderson, K.J.** (2007). Temporal patterns in rates of community change during succession. *The American Naturalist*, 169, 780-793. (Featured Article)
- Anderson, K.J.**, Allen, AP, Gillooly, J.F., and Brown, J.H. (2006). Temperature-dependence of biomass accumulation rates during secondary succession. *Ecology Letters*, 9, 673-682.
- Anderson, K.J.** and Jetz W. (2005). The broad scale ecology of energy expenditure of endotherms. *Ecology Letters*, 8, 310-318. (Featured Article)

## INVITED PRESENTATIONS & WORKSHOPS

- Anderson-Teixeira, K.J. (June 2009). Contributions of land use change to the greenhouse gas budget of biofuels, BIOEN Workshop on the Impact of Land Use Change and Biofuel Crops on Soils and the Environment, São Paulo, BRAZIL.
- Energy Biosciences Workshop on Bioenergy Crop Modeling and Land Use. (Oct. 2008). U. C. Berkeley, CA, USA.
- Anderson, K.J. (May 2007). Altered temperature responses arising from interactions among temperature-dependent processes. Workshop on The Metabolic Theory of Ecology and Stream Ecosystems: The Role of Resources, Sevilleta LTER, NM, USA.
- Anderson, K.J. (March 2007). Temporal patterns in rates of community change during succession. Workshop on Biocomputing, University of New Mexico, Albuquerque, NM, USA.

## **PRESENTATIONS**

- Anderson-Teixeira, K.J (August 2009). Quantifying the full greenhouse gas effects of biofuels-related land use change, Ecological Society of America's Annual Meeting, Albuquerque, NM, USA.
- Anderson-Teixeira, K.J., Davis, S.C., Masters, M.D., DeLucia, E.H. (December 2008). Changes in soil organic carbon storage under potential biofuel crops, American Geophysical Union Fall Meeting, San Francisco, CA, USA.
- Anderson-Teixeira, K.J., Davis, S.C., Masters, M.D., DeLucia, E.H. (June 2008). Changes in soil organic carbon storage under potential biofuel crops. Pan American Congress on Plants and Bioenergy, Mérida, Mexico, USA.
- Anderson, K.J. (August 2006). Temporal patterns in rates of community change during succession. Ecological Society of America's Annual Meeting, Memphis, TN, USA.
- Anderson, K.J. (July 2006). Temperature dependence of forest turnover rates. Gordon Research Conference: Metabolic Basis of Ecology. Lewiston, ME, USA.
- Anderson, K.J. (July 2005). Temperature-dependence of ecosystem processes during primary succession. Hawaii Ecosystems Project Meeting. Kea'au, Hawaii, USA.
- Anderson, K.J. and Jetz W. (June 2005). The broad scale ecology of energy expenditure of endotherms. Physiological Ecology Meeting, Bishop, CA, USA.
- Anderson, K.J. and Jetz W. (Jan 2005). The broad scale ecology of energy expenditure of endotherms. International Biogeography Society Meeting, Shepherdston, WV, USA.
- Anderson, K.J. (August 2004). Metabolic control on succession rate. Ecological Society of America's Annual Meeting, Portland, OR, USA.
- Anderson, K.J. (July 2004). Metabolic control on succession rate. Gordon Research Conference: Metabolic Basis of Ecology. Lewiston, ME, USA.
- Anderson, K.J. (August 2003). Latitudinal trends in energy expenditure of endotherms. Ecological Society of America's Annual Meeting, Savannah, GA, USA.
- Anderson, K.J., Page, L.K. (April 2002). Effect of the presence of seed upon granivore visitation to raccoon latrines and similar structures. National Conference on Undergraduate Research, Whitewater, WI, USA.

## **TEACHING INTERESTS**

Global Change Biology; Ecosystem Ecology; Theoretical & Mathematical Ecology; Community Ecology; Biogeography; General Ecology; General Biology; Ecology & Global Issues

## **TEACHING EXPERIENCE**

- Guest Lecturer; Biogeography, Community Ecology, Ecology, Plant & Animal Form & Function; University of New Mexico (2005-2007)
- Teaching Assistant, Biology for Health-Related Sciences and Non-Majors Lab, University of New Mexico (Fall 2006)
- Teaching Assistant, Introduction to Biology Lab, University of New Mexico (Fall 2003)
- Teaching Assistant, Genetics, Wheaton College (Spring 2002)
- Teaching Assistant, College Biology I Lab, Wheaton College (Fall 2001)

## **PROFESSIONAL SERVICE**

Reviewer: *Proceedings of the National Academy of Sciences, Ecology Letters, Global Change Biology, Physiological and Biochemical Zoology, Plant Biology, Annals of Botany*

Committee for Public Affairs & Communications, International Biogeography Society (2006-2007)

Volunteer Judge for Menaul School Science Research Expo (2006)

## **PROFESSIONAL AFFILIATIONS**

Ecological Society of America (2003-present); American Society of Plant Biologists (2008-present); American Society of Naturalists (2006-2007); International Biogeography Society (2003-2006); United States Regional Association of the International Association for Landscape Ecology (2003-2006)

## **RESEARCH IN THE NEWS**

McCaffrey, R., 2008. Interview with Dr. Kristina Anderson-Teixeira. *Morning on the Farm*, WICD-TV (Champaign, IL) and WICS-TV (Springfield, IL), USA, December 23, 2008.

Yates, D., 2008. Replacing corn with perennial grasses improves carbon footprint of biofuels. In: AAAS (Ed.), *EurekAlert! AAAS*. (story picked up by numerous online news agencies)