

## David Andrew Lutz

Post-Doctoral Research Associate and Lecturer  
Environmental Studies Program, Dartmouth College  
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### Education:

- 2010 Ph. D., *Environmental Sciences*, University of Virginia  
Advisor: Dr. Herman H. Shugart
- 2008 M.S., *Environmental Sciences*, University of Virginia  
Advisor: Dr. Herman H. Shugart
- 2004 B.S., *cum laude*, with honors, *Biology*, Wake Forest University  
Advisor: Dr. Miles R. Silman

### Professional Appointments:

- 2012- Research Associate, Environmental Studies, Dartmouth College
- 2014- Lecturer, Environmental Studies, Dartmouth College
- 2011-2012 Research Associate, Center for Energy, Environment and Sustainability, Wake Forest University
- 2009-2010 Graduate Research Assistant, University of Virginia
- 2005-2009 Presidential Fellow, Department of Environmental Sciences, University of Virginia

### Scientific Publications (by date):

1. **Lutz, D. A.**, Burakowski, E. A., Murphy, M. B.\*, Borsuk, M. E., Niemiec, R. M.\*, and Howarth, R. B. Tradeoffs between Three Forest Ecosystem Services across the State of New Hampshire: Timber, Carbon, and Albedo. *Minor Revisions: Ecological Applications*.
2. **Lutz, D. A.** and Howarth, R. B. The Price of Snow: The Use of Climate Metrics for Forest Albedo Valuation. In *2<sup>nd</sup> Round of Revision: Environmental Research Letters*.
3. McDermott, S.M., Howarth, R. B., and **Lutz, D. A.** 2015. Addressing the assumption of carbon neutrality: Analysis of the Northern Forest. *Land Economics*, 91(2), 197-210.
4. Niemiec, R. A.\*, **Lutz, D. A.**, and Howarth, R. B. 2014. Incorporating Carbon Storage into the Optimal Management of Forest Insect Pests: A Case Study of the Southern Pine Beetle (*Dendroctonus Frontalis* Zimmerman) in the New Jersey Pinelands, *Environmental Management*, 54(4), 875-887.
5. **Lutz, D.A.** and Howarth, R. B. 2014. Valuing Albedo as an Ecosystem Service: Implications for Forest Management. *Climatic Change*, 124, 53-63. DOI 10.1007/s10584-014-1109-0
6. **Lutz, D. A.**, Powell, R. L., and Silman, M. R. 2013. Four Decades of Andean Timberline Migration and Implications for Biodiversity Loss with Climate Change. *PLoS ONE*, 8(9), e74496. doi:10.1371/journal.pone.0074496
7. **Lutz, D. A.**, Shugart, H. H., Ershov, D. V., Shuman, J. K., and Isaev, A. S. 2013 Boreal forest sensitivity to increased temperatures at multiple successional stages. *Annals of Forest Science*, 1-10.
8. **Lutz, D. A.**, White, M. A., Shugart, H. H. 2012. Sensitivity of Russian forest timber harvest and carbon storage to temperature increase. *Forestry* (86), 283-293.

9. Browne, R., **Lutz, D. A\***. 2010. Lake ecosystem effects associated with top-predator removal due to selenium toxicity. *Hydrobiologia*, 655 (1), 137-148.
10. **Lutz, D. A.**, Washington-Allen, R. A., and Shugart, H. H. 2008. Remote Sensing of Boreal Forest Biophysical and Inventory Parameters: A Review. *Canadian Journal of Remote Sensing Special Issue: Remote characterization of vegetation structure and productivity: plant to landscape scales*, 34 (supp 2), pg. S286-S313.
11. Pitman, N. C. A., Azáldegui, M. D. C. L., Salas, K., Vigo, G. T., and **Lutz, D. A\***. 2006. Written Accounts of an Amazonian Landscape over the Last 450 Years. *Conservation Biology*, 21(1), pg. 253-262.

\* indicates research performed as an undergraduate

### Papers in Preparation

1. Jones, R., Howarth, R. B., and **Lutz, D. A.** Integrating Carbon Sequestration into the Ecological and Economic Multiple-Use Policy and Management of U.S. National Forests. To: *Forest Economics and Policy*
2. **Lutz, D. A.** and Burakowski, E.A. Trends in Climatic Ecosystem Services from Changing Snowfall with Climate Change in the Northeastern United States. To: *Nature Climate Change*
3. Ahmed, S., Dufour, B., Huish, R., **Lutz, D. A.**, and Rapp, J. A socio-ecological model to examine climate effects on sugar maple. To: *PLoS One*

### Awards, Fellowships, and Grants

2015-2017	Northeastern Climate Science Center: Climate Effects on the Culture and Ecology of Sugar Maple. <b>\$149,867</b>
2014-2016	Southern Research Station Partnership Enhancement Initiative Grant – United States Forest Service. “Evaluating Tradeoffs among Ecosystem Services in Eastern Forests and the Role of Disturbance” <b>\$49,548</b> Co-PI.
2013-2014	Porter Foundation Faculty Research Grant. “Managing Local Forests for Global Sustainability: A Focus on Dartmouth’s Second College Grant”. <b>\$ 65,774</b> Co-author and personnel.
2012-2013	Wake Forest Center for Energy, Environment, and Sustainability Research Grant. “Seed Project for the Establishment of Native Grass and Canola for Biofuel Stock Research in Yadkinville, NC” <b>\$2,950</b> . Co-PI.
2011-2012	Wake Forest Center for Energy, Environment, and Sustainability Research Grant. “” <b>\$2854</b> Co-PI
2009-2010	Civilian Research and Development Foundation Multidisciplinary Climate Change Grant. “Title” \$ Lead Grant Writer and Co-PI
2009-2010	Virginia Space Grant Consortium Graduate Research Fellow. “Title” \$ Recipient
2007-2009	NASA Carbon/04-0231-0148 Graduate Student
2005-2008	University of Virginia Presidential Fellow

### Teaching Experience:

#### Dartmouth College, Environmental Studies Program

Lecturer, <i>Global Environmental Science</i>	Winter 2015
Guest Lecturer, <i>Natural Resource Management</i> , Prof. M. Borsuk	Winter 2014
Guest Lecturer, <i>Ecological Economics</i> , Prof. R. Howarth	Winter 2014
Guest Lecturer, <i>Governing the Environment</i> , Prof. M. Cox	Fall 2013

Guest Lecturer, *Ecological Economics*, Prof. R. Howarth Winter 2013  
Guest Lecturer, *Conservation Biology*, Prof. S. Ahmed Winter 2013

Wake Forest University, Department of Biology  
Lecturer, *Statistics in R*, Graduate Research Symposium Spring 2012  
Guest Lecturer, *Global Warming: Fact or Fiction*, Prof. W. K. Smith Spring 2012

University of Virginia, Department of Environmental Sciences

Teaching Assistant, *Forest Ecology and Management*, Prof H. Shugart Fall 2010  
Guest Lecturer, *Conservation Biology*, Prof H. Epstein Fall 2010  
Guest Lecturer, *Biodiversity and Conservation*, Prof R Swap Fall 2010  
Teaching Assistant, *Ecological Issues in Global Change* Prof H. Shugart Spring 2010  
Teaching Assistant, *Forest Ecology and Management*, Prof H. Shugart Fall 2009

### **Student Mentorship:**

Dartmouth College, Environmental Studies Program

Autumn Brunelle – Climate Change and the Future Taste of Maple Syrup. *Currently:* Senior, Environmental Studies Major, Dartmouth

Rebecca Niemiec - Modeling Ecosystem Service Tradeoffs for Effective Forest Pest Management. *Currently:* PhD student, Stanford School of Earth Sciences

Jimena Diaz - The Influence of Forest Management on Stream Temperature and Behavior in Brook Trout. *Currently:* Researcher, Amazon Conservation Association

Wake Forest University, Department of Biology

Whitney Johnson - Trends in Alluvial Gold Mining in Madre de Dios, Peru. *Currently:* Teach For America, Mississippi

University of Virginia, Department of Environmental Sciences

Hannah Davis - Trends in Neotropical Primate Conservation: a review

Douglas Benson - Response of Tropical Fish to Environmental Pollutants: a review

Adrianna Foster - A Review of Human Felid Interactions in Tropical Rainforests

Sybil Greenhalgh - Preserving Amazonian Biodiversity through Ecosystem Services

Farhad Yazdi -Importance of Plant Medicines in the Amazon and the Impacts of Deforestation

Phillip Glass - Reducing Emissions from Deforestation and Degradation: A Tropical Conservation Strategy

### **Professional Presentations:**

American Geophysical Union Annual Meeting Dec. 2014  
(Presenter and Session Convener)

American Geophysical Union Annual Meeting Dec. 2013

NH EPSCoR Biannual Meeting Nov. 2013

Center for Tropical Ecology and Conservation Annual Symposium Nov. 2013  
Antioch College

United States Society of Ecological Economics Annual Meeting June, 2013

World Wildlife Foundation Conservation Laboratory March, 2012

Invited presentation

CITES – 2009, NEESPI Workshop, Krasnoyarsk, Russia July, 2009

NASA Land Cover Land Use Change Annual Meeting March, 2009

American Geophysical Union Annual Meeting  
American Geophysical Union Annual Meeting  
NASA Land Cover Land Use Change Annual Meeting

Dec. 2008  
Dec. 2007  
March, 2007

**Reviews (13):**

PLoS One, Atmospheric Chemistry and Physics, Canadian Journal of Remote Sensing,  
Ecological Economics, Southern Journal of Forestry, Environmental Management, Canadian  
Journal of Forest Research.