

JEFF ATKINS

jeffatkins@virginia.edu

University of Virginia
Department of Environmental Sciences
291 McCormick Rd.
Charlottesville, VA 22903
atkinsjeff.github.io
@atkinsjeff
828.226.4753

EDUCATION

2016 *Doctor of Philosophy, Environmental Sciences, University of Virginia, Charlottesville, VA*
2004 *Bachelor of Arts, English, Western Carolina University, Cullowhee, NC*

APPOINTMENTS

* Post-Doctoral Scholar, Virginia Commonwealth University, Department of Biology

PUBLICATIONS

* **Atkins, JW**, HE Epstein, DL Welsch (2015) "Vegetation and elevation influence the timing and magnitude of soil CO₂ efflux in a humid, topographically complex watershed." *Biogeosciences*, 12, 2975-2994.

PUBLICATIONS (IN REVIEW)

* **Atkins, JW**, HE Epstein, DL Welsch "Characterization of understory shrub expansion in a West Virginia watershed from 1986 – 2011 using Landsat derived vegetation indices." In review at *Remote Sensing of Environment*
* JA Walter, JC Neblett, **JW Atkins**, HE Epstein "Regional and watershed scale analysis of current and future suitable habitat for red spruce in the central Appalachian Mountains." In review at *Plant Ecology*

EXTERNAL GRANTS AND FUNDING

* "Evaluating Carbon and Water Cycling in the Weimer Run Watershed, West Virginia" (**Coauthor**) Appalachian Stewardship Foundation, 2012, \$8,500 (PI: Howard E. Epstein, University of Virginia).

INTERNAL GRANTS AND FUNDING

* VCU Post-Doctoral Travel Award, 2016, \$700
* Open Access Fund Award, University of Virginia Library, 2014, \$1,190
* Moore Award: "Methane and carbon cycling in a Virginia ephemeral wetland" Department of Environmental Sciences, University of Virginia, 2014, \$5,000.
* Robert J. Huskey Travel Fellowship, Graduate School of Arts and Sciences, University of Virginia (to attend AGU Fall Meeting in San Francisco) 2011, \$240.
* Exploratory Research Grant: "Mechanisms influencing surface soil CO₂ efflux in respect to elevation and vegetation gradients in a complex watershed," Department of Environmental Sciences, University of Virginia, 2011, \$1,500.

INVITED TALKS

* "Carbon cycling in a humid watershed in West Virginia", Biology Seminar Series, Virginia Commonwealth University

PRESENTATIONS

* Gough, CM, RT Fahey, BS Hardiman, CM Scheuermann, **JW Atkins** (2016) "(Why) does physical complexity matter?: Forest physical structure and carbon cycling," INTERface workshop, 2016
* **Atkins, JW**, HE Epstein, DL Welsch (2015) "Characterization of understory shrub expansion in a West Virginia watershed from 1986 – 2011 using Landsat derived vegetation indices," American Geophysical Union Fall Meeting 2015, abstract #B53C-0572

- * **Atkins, JW**, HE Epstein, DL Welsch (2015) “Decomposition varies spatially and temporally by vegetation cover and elevation in a West Virginia watershed,” Ecological Society of America Annual Meeting, Baltimore, MD
- * **Atkins, JW**, AM Riscassi (2015) “Impact of episodic acidification events on brook trout in Shenandoah National Park,” Robert J. Huskey Research Exhibition, University of Virginia
- * **Atkins, JW**, HE Epstein, DL Welsch (2014) “Carbon dioxide and methane fluxes from the transitional zone of a Virginia ephemeral wetland,” American Geophysical Union Fall Meeting 2014, abstract #B13D-0210
- * Ko, SM, HE Epstein, **JW Atkins** (2014) “Effects of elevation and vegetation interactions on the organic layer in Weimer Run watershed, West Virginia,” Enviroday – Environmental Sciences Student Research Symposium, University of Virginia.
- * Neblett, JC, JA Walter, **JW Atkins**, HE Epstein (2014) “Red spruce in the Weimer Run watershed, WV: suitability under current conditions,” Enviroday – Environmental Sciences Student Research Symposium, University of Virginia.
- * **Atkins, JW**, HE Epstein, DL Welsch (2013) “Impacts of vegetation heterogeneity and landscape position on carbon and water cycling in a complex, humid watershed in West Virginia,” American Geophysical Union Fall Meeting 2013, abstract #B52A-06
- * **Atkins, JW**, DL Welsch, HE Epstein (2013) “Inter-annual variation in precipitation affects the spatial heterogeneity of soil CO₂ efflux in a West Virginia watershed,” Ecological Society of America Annual Meeting, Minneapolis, MN.
- * **Atkins, JW** (2013) “Implications of fundamental state changes on red spruce restoration attempts in the central Appalachians,” Robert J. Huskey Research Exhibition, University of Virginia.
- * **Atkins JW**, DL Welsch, HE Epstein (2013) “Inter-annual variation in precipitation affects the spatial heterogeneity of soil CO₂ efflux in a West Virginia watershed,” Penn State—Environmental Chemistry and Microbiology Student Symposium.
- * **Atkins JW**, DL Welsch, HE Epstein (2013) “How the lateral redistribution of soil moisture within a humid, temperate watershed affects carbon cycling,” Enviroday – Environmental Sciences Student Research Symposium, University of Virginia.
- * **Atkins JW**, HE Epstein, DL Welsch (2012) “Mechanisms influencing surface soil CO₂ efflux in respect to elevation and vegetation gradients in a complex watershed,” The Fourth Annual FREC Graduate Research Symposium, Department of Forest Resources and Environmental Conservation, Virginia Tech.
- * **Atkins JW**, HE Epstein, DL Welsch (2012) “Evaluating the controls on carbon and water cycling in complex terrain: what goes in, must come out,” Robert J. Huskey Research Exhibition, University of Virginia.
- * **Atkins JW**, HE Epstein, DL Welsch (2012) “Evaluating the effects of complex terrain on carbon and water cycling in a forested watershed in West Virginia,” Enviroday – Environmental Sciences Student Research Symposium, University of Virginia. (Poster)
- * **Atkins JW**, HE Epstein, DL Welsch (2011) “Mechanisms influencing surface soil CO₂ efflux in respect to elevation and vegetation gradients in a complex watershed,” American Geophysical Union Fall Meeting 2011, abstract #B33F-0525.
- * **Atkins JW**, HE Epstein, DL Welsch (2011) “Carbon and water cycling in a high-altitude watershed in West Virginia,” Enviroday – Environmental Sciences Student Research Symposium, University of Virginia.
- * **Atkins JW** (2003) “Joseph Meeker and John Steinbeck: the importance of place in *Cannery Row*,” National Conference on Undergraduate Research, University of Utah.

AWARDS AND RECOGNITIONS

2015 Graduate Student Association Award, Department of Environmental Sciences, University of Virginia
 2015 First place presentation, Biology and Biomedical Sciences, Robert J. Huskey Research Exhibition
 2014 Trout Unlimited Award, Trout Unlimited Virginia Area Council
 2012 Tomorrow’s Professor Today, Teaching Resource Center, University of Virginia
 2012 Third place presentation, Physical Science and Math, Robert J. Huskey Research Exhibition
 1999 Founder’s Scholarship, Honors College, Western Carolina University
 1997 Founder’s Award, Order of the Arrow
 1996 National Leadership Seminar, Boy Scouts of America
 1994 Eagle Scout, Boy Scouts of America

PROFESSIONAL SERVICE AND EXPERIENCE

- * Peer Reviewer: Agricultural and Forest Meteorology, Biogeosciences, Global Change Biology, Forest Ecology and Management
- * Primary Session Convener: American Geophysical Union Fall Meeting, 2015: “Towards better understanding of climate variability: from ecosystem processes to agricultural adaptation and decision-making”
- * Planting Science, Science Mentor
- * Facilitator: University of Virginia Teaching Resource Center’s August Teaching Workshop seminars “The First Days of Class,” and “Troubleshooting Teaching Challenges” (2014, 2015)
- * Facilitator: University of Virginia Center for Teaching Excellence Foundations of Scholarly Teaching Seminar (2015)
- * Graduate Research Fellow, Blandy Experimental Farm (2014)
- * Student Volunteer: American Geophysical Union Fall Meeting (2013)
- * Session Presider: Ecological Society of America Annual Meeting (2013)
- * Session Moderator: Enviroday – Environmental Sciences Student Research Symposium, University of Virginia (2013)
- * Coldwater Conservation Research Initiative, Waynesboro, Virginia (2012)
- * “Dr. Doughnuts,” Graduate Student Association, University of Virginia (2011 – 2015)

PROFESSIONAL MEMBERSHIPS

- * American Geophysical Union
- * Ecological Society of America

PROFESSIONAL DEVELOPMENT

- * Tomorrow’s Professor Today; Teaching Resource Center, University of Virginia
- * Conducting Open Science using R and DataONE: A Hands-on Primer (ESA 2013)
- * Alan Alda Communicating Science Workshop
- * Data Management Boot Camp (University of Virginia)
- * Potsdam Flux Course (Attending October, 2015)
- * International Geosphere-Biosphere Program (IGBP) Future Earth Early Career Workshop (Attending December, 2015)

TEACHING

- 2010 – Pres *Graduate Teaching Assistant*, University of Virginia
EVSC 1020: Practical Concepts in Environmental Sciences
EVSC/BIO: 4559: Forest Sampling
EVSC 5220: Terrestrial Ecology Lab
EVSC 3600: Hydrology Lab
- 2010 – 2011 *Athletics Tutor*, University of Virginia – Athletic Academic Affairs Office
Ecology, Environmental Sciences, Hydrology, Biology
- 2009 – 2010 *After-School Tutor*, Jackson County Public Schools
Math, Science, English, History, Life Skills
- 2001 – 2004 *Writing Tutor*, University Writing Center – Western Carolina University
Focus in History, Composition, Literature, Rhetoric

RESEARCH EXPERIENCE

- 2011 – Pres Field Scientist, Shenandoah Watershed Study-Virginia Trout Stream Sensitivity Study (SWAS-VTSSS)
- 2012 Western Atlantic Climate Study (WACS), Seawater Aerosol Generator laboratory, NOAA Ron Brown, Research Assistant (Non-Deployment—Assembly Phase Only)
- 2011 – Pres National Atmospheric Deposition Program (NADP), Station VA00

OTHER EXPERIENCE

- 2015 – Pres PLOS Ecology Community Site Editor
- 2015 Instructor for Introductory Environmental Science Class for 4 Star Summer Camps
- 2008 – 2010 Qualified Mental Health Professional, Jackson County Psychological Services, Sylva, NC.
- 2006 – 2008 Associate Mental Health Professional, Jackson County Psychological Services, Sylva, NC.
- 2004 – 2006 Direct Care Worker, Meridian Behavioral Health Services, Sylva, NC.
- 2003 – 2004 Features Editor, Copy Editor, Writer, Western Carolinian/WC Newsmagazine, Western Carolina University, Cullowhee, NC.
- 2002 – 2004 Editor, NOMAD literary magazine, Western Carolina University.

PRESS

- * “Carbon Fluxes from Mountainous Soil,” Environmental Sciences at the University of Virginia 2013-14 Annual Report
http://www.evsc.virginia.edu/wp-content/uploads/UVAES_2015annualreport_lores.pdf
- * “U.Va.’s Long-Term Mountain Stream Studies Reveal Changing Conditions,” UVA Today
<http://news.virginia.edu/content/uva-s-long-term-mountain-stream-studies-reveal-changing-conditions>

COMMUNITY SERVICE

- * Judge, 32nd Virginia Piedmont Regional Science Fair (Environmental Management, NOAA “Taking the Pulse of the Environment Award,” and Association of Women Geoscientists, “Women in Geoscience Award”) (2013)
- * Garden Committee, Venable Elementary School, Charlottesville, Virginia (2012 – 2013)
- * Youth Soccer Coach (U8 and U10), Soccer Organization of Charlottesville/Albemarle (2014 – Pres)

STUDENTS MENTORED

- 2015 Molly Siebers (B.S. Student), “Rhododendron expansion and change in winter NDVI in the Weimer Run watershed”
- 2015 Emily Salle (B.S. Student), “Spatial variation in methane fluxes from an ephemeral wetland using soil incubations”
- 2014 Henry Hoffman (B.S. Student), “Effects of episodic storm events on brook trout in SNP”
- 2014 Jorge Ruiz (REU program Blandy Experimental Farm) Project: “Spatio-temporality of the earthworm community in Lake Arnold”
- 2013-2014 Sang Mee Ko (B.A. Student), Thesis: “Effects of elevation and vegetation interactions on the organic layer in Weimer Run Watershed, West Virginia”
- 2013-2014 Jessica Neblett (B.A. Student), Thesis: “Red spruce: current and future suitability in the Weimer Run watershed, West Virginia,” Department of Environmental Sciences, University of Virginia (Co-Mentored with Jon Walter).
- 2013 Sarah Friedlander (B.A. Student), Thesis: “Variable flow relationships with Cl⁻ concentrations in four mountain catchments,” Department of Environmental Sciences, University of Virginia (Co-Mentored with Rick Webb).

DISSERTATION COMMITTEE

- Howard E. Epstein, Department of Environmental Sciences, University of Virginia (Advisor)
- Todd M. Scanlon, Department of Environmental Sciences, University of Virginia
- Danny L. Welsch, Canaan Valley Institute and American Public University System
- Andres F. Clarens, Department of Civil and Environmental Engineering, University of Virginia

RESEARCH MENTORS

- Post-Doctoral – Chris Goguh (Virginia Commonwealth University)
- Ph.D. – Howard Epstein (University of Virginia)
- Post-Baccalaureate – Kevin Moorhead (University of North Carolina—Asheville)

Jeff Atkins CV (jeffatkins@virginia.edu)

Undergraduate – Terry Nienhuis (Western Carolina University)

REFERENCES

Howard E. Epstein (hee2b@virginia.edu)

Todd Scanlon (tms2v@virginia.edu)

Ami Riscassi (alr8m@virginia.edu)

Chris Gough (cmgough@vcu.edu)

CODE AND DATASETS

* github.com/atkinsjeff

* figshare.com/authors/Jeff_Atkins/665669

SKILLS AND TRAINING

* Software and programming: R and R Studio, ArcGIS, Matlab, Campbell Scientific Loggernet and CRBasic, and SAS