

# JEFF ATKINS

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## EDUCATION

2015 (expected) *Doctor of Philosophy*, Environmental Sciences, University of Virginia, Charlottesville, VA  
2004 *Bachelor of Arts*, English, Western Carolina University, Cullowhee, NC

## PUBLICATIONS

\* **Atkins, JW**, HE Epstein, DL Welsch (2015) "Vegetation and elevation influence the timing and magnitude of soil CO<sub>2</sub> efflux in a humid, topographically complex watershed." *Biogeosciences*, 12, 2975-2994.

## PUBLICATIONS (IN PREPERATION)

\* **Atkins, JW**, HE Epstein, DL Welsch "Characterization of understory shrub expansion in a West Virginia watershed from 1986 – 2011 using Landsat derived vegetation indices"  
\* **Atkins, JW**, HE Epstein, DL Welsch "Decomposition varies spatially and temporally by vegetation cover and elevation in a West Virginia watershed"  
\* JC Neblett, JA Walter, **JW Atkins**, HE Epstein "Regional and watershed scale analysis of current and future suitable habitat for red spruce in the central Appalachian Mountains"

## PRESENTATIONS

\* **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 CO<sub>2</sub> 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 CO<sub>2</sub> 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 CO<sub>2</sub> 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 CO<sub>2</sub> 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.

## CODE AND DATASETS

- \* [github.com/atkinsjeff](https://github.com/atkinsjeff)
- \* [figshare.com/authors/Jeff\\_Atkins/665669](https://figshare.com/authors/Jeff_Atkins/665669)

## 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

- \* 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 CO<sub>2</sub> efflux in respect to elevation and vegetation gradients in a complex watershed” Department of Environmental Sciences, University of Virginia, 2011, \$1,500.

## AWARDS AND RECOGNITIONS

- 2015 Graduate Student Association Award, Department of Environmental Sciences, University of Virginia
- 2015 First place, 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, 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

- \* Peer Reviewer: Biogeosciences, 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)
- \* 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)

## 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](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, 32<sup>nd</sup> 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)

## PROFESSIONAL MEMBERSHIPS

\* American Geophysical Union

\* Ecological Society of America

\* European Geophysical Union

## 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             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.

## **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<sup>-</sup> 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**

Ph.D. – Howard Epstein (University of Virginia)  
 Post- Baccalaureate – Kevin Moorhead (University of North Carolina—Asheville)  
 Undergraduate – Terry Nienhuis (Western Carolina University)

## **REFERENCES**

Howard E. Epstein (hee2b@virginia.edu)  
 Todd Scanlon (tms2v@virginia.edu)  
 Ami Riscassi (alr8m@virginia.edu)  
 Hank Shugart (hhs@virginia.edu)