Jacob Diamond

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Research Interests

Watershed hydrology and biogeochemistry. Ecosystem ecology and ecohydrology. Feedbacks and self-organization. Analysis of environmental data.

Education

Ph.D. [Forest Ecohydrology], Virginia Tech — Expected: December 2018
M.S. [Ecohydrology], University of Florida — May 2013
B.S.E. [Environmental Engineering], University of Florida — May 2011

Appointments

Graduate Research Assistant — August 2015 – present
Virginia Tech, Blacksburg, VA

Water Resources Specialist — August 2013 – August 2015
SWCA Environmental Consultants, Salt Lake City, UT

Wetland Field Technician — June 2013 – August 2013
Utah Department of Environmental Quality, Salt Lake City, UT

Graduate Teaching Assistant — August 2011 – May 2013
University of Florida, Gainesville, FL

Research Assistant, Ecohydrology Laboratory — August 2009 – May 2011
University of Florida, Gainesville, FL

Published Journal Articles

Diamond, J.S.* and M.J. Cohen. (2018). Complex patterns of catchment solute-discharge relationships for coastal plain rivers. *Hydrological Processes, 32*(3), 388–401. doi: 10.1002/hyp.11424.

Diamond, J.S.*, D.L. McLaughlin, R.A. Slesak, A.W. D'Amato, and B.J. Palik. (2018). Forested *versus* herbaceous wetlands: Can management mitigate ecohydrologic regime shifts from invasive emerald ash borer? *Journal of Environmental Management, 222*(15), 436–446. doi: 10.1016/j.jenvman.2018.05.082.

Manuscripts Submitted for Publication or in Preparation

Diamond, J.S.*, D.L. McLaughlin, R.A. Slesak, J.H. Kim, K. Schafer, B. Ebel, M. Forrest, and K. McGuire. Pest hydrology: A review. *In prep.*

Diamond, J.S.*, J. Epstein, M.J. Cohen, D.L. McLaughlin, J. Duberstein, Y. Hsueh, and R. Keim. Wetland microtopography: A review and synthesis of formation and processes. *In prep.*

Stovall, A., J.S. Diamond*, D.L. McLaughlin, and H. Shugart. Quantifying Wetland Microtopography with Terrestrial Laser Scanning. *In prep.*

McLaughlin D.L., J.S. Diamond*, C. Quintero, and M. J. Cohen. Wetland-Landscape Connectivity Thresholds and Flow Dynamics from High Frequency Stage Measurements. *In prep.*

Professional Organizations

Society for Freshwater Science — May 2018–Present
Association for the Sciences of Limnology and Oceanography — February 2018–Present
American Association for the Advancement of Science — January 2016–Present
Society of Wetland Scientists — June 2012–Present
American Geophysical Union — June 2012–Present

Academic Awards

ICTAS Doctoral Scholar Experiential Learning Grant ($500) — October 2017
William R. Walker Fellowship Award ($2,300) — July 2017
1st Place in Category, 2nd Overall NYU Policy Case Competition, *Team Leader* — April 2017
William J. Dann Fellowship ($12,000) — August 2015

Virginia Tech ICTAS Doctoral Scholar Award ($160,000)	August 2015
Outstanding Presentation at the American Geophysical Union Conference	December 2012
1st Place National Water Env. Fed. Design Competition, *Team Leader* ($2,500)	December 2011
Graduate Assistantship to Master's Program at UF ($32,000)	August 2011
Gareth Kerr Environmental Engineering Memorial Scholarship ($1,000)	May 2010
Charles Poekert Environmental Engineering Alumni Scholarship ($500)	May 2009
UF-HHMI GATOR Undergraduate Research Program ($2,500)	May 2008

Teaching Experience

Guest Lecturer - Wetland Hydrology and Biogeochemistry	Spring 2018
Teaching Assistant - Forestry Field Methods	Spring 2017
Teaching Assistant - Watersheds and Water Quality	Fall 2016
Teaching Assistant - Forest Soil and Watershed Mgmt	Fall 2015
Teaching Assistant - Forest Water Resources	Spring 2013
Teaching Assistant - Environmental Science	Fall 2011
Upward Bound Summer School Teacher - Physics, Chemistry, Earth/Space Science, and Biology	Summer 2007

Conference Presentations

SFS Annual Meeting – *Self-organized microtopography in black ash wetlands is driven by hydrology*	May 2018
Workshop on the Future of Ash Forests – *Six year effects of simulated EAB mortality and harvesting on black ash ecohydrology*	July 2017
SWS Annual Meeting – *Vegetation controls hydrology in northern black ash wetlands*	May 2015

Posters

AGU Fall Meeting– *Wetland microtopographic structure and function revealed with terrestrial laser scanning*	December 2017
São Paulo School of Advanced Science on Climate Change – *Emerald ash borer simulation reveals ecohydrologic feedbacks in black ash wetlands*	July 2017
Gordon Research Conference: Catchment Science – *Emerald ash borer simulation reveals ecohydrologic feedbacks in black ash wetlands*	June 2017
ICTAS Doctoral Scholar Poster Session – *The black ash tree is a foundational species and ecosystem engineer*	April 2017
AGU Fall Meeting – *Concentration-discharge relationships for variably sized streams in Florida: Patterns and drivers in long-term catchment studies*	December 2012
Southeastern Ecology and Evolution Conference – *Use of $\delta^{15}N$ to Trace Sources of Nutrient Enrichment on Tree Islands in the Everglades, Fl*	May 2009

Seminars and Talks

Cross-Boundaries Biogeochemistry Flash Talk – *An ecology of mind*	April 2018
Forest Resources and Environmental Conservation Spring Seminar – *Terrestrial laser scanning reveals wetland microtopographic structure and function*	March 2018
Science on Tap Flash Talk – *Why do so many forested wetlands organize around a single primary producer?*	March 2017
Cross-Boundaries Biogeochemistry Flash Talk – *What are the rules of life?*	March 2017
Cross-Boundaries Biogeochemistry Flash Talk – *How do forested wetlands self-organize?*	November 2016
Forest Resources and Environmental Conservation Spring Seminar – *How do Hydrologic Feedbacks Drive Ecosystem Structure and Process in Forested Wetlands?*	April 2016

School of Natural Resources and Environment Spring Seminar – *Concentration-discharge relationships for streams and rivers in Florida: Patterns and drivers* — May 2013

Outreach and Volunteering

Gordon Research Seminar on Catchment Science Co-Chair — June 2019
Tazewell County 4-H Students Virginia Tech Visit — April 2018
Blacksburg High School Science Outreach — December 2017
William Fleming High School Science Outreach — November 2017
Department Graduate Student Association President — August 2016–May 2017
Departmental Spring Seminar Series Organizer — November 2016–April 2017
Christiansburg Middle School Stormwater Day — April 2017
Tazewell County 4-H Students Virginia Tech Visit — April 2017

Peer Review

Wetlands
Journal of Hydrology
Hydrological Processes
Hydrology and Earth System Sciences