

**CHRISTOPHER A. WILLIAMS, Ph.D.**

Graduate School of Geography, Clark University  
950 Main Street, Worcester, MA 01610 USA  
Phone: +1 508.793.7323; Email: cwilliams@clarku.edu

**EDUCATION**

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**Ph.D. Environmental Sciences (December 2004)**

**School of the Environment and Earth Sciences (Summa Cum Laude)**

**Duke University: Durham, North Carolina**

Dissertation title: *Hydrologic controls on vegetation function and structure in water-limited systems*

Committee: John D. Albertson, Howard E. Epstein (external), Gabriel Katul, Robert Jackson

Note: Ph.D. commenced Fall 2000 in Dept. of Environmental Sciences (Magna Cum Laude), U. of Virginia

**M.S. Watershed Science (May 2000)**

**Department of Watershed Science (Summa Cum Laude)**

**Colorado State University: Fort Collins, Colorado**

Thesis title: *Comparison of floodplain hydrology and cottonwood water relations between a regulated and an unregulated river in northwestern Colorado*

Committee: David J. Cooper, Lee MacDonald, Dan Binkley

**B.A. Biology / Environmental Studies (May 1996)**

**Biology and Environmental Studies double major (Cum Laude)**

**Bucknell University: Lewisburg, Pennsylvania**

**APPOINTMENT HISTORY**

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**Associate Professor, Graduate School of Geography (Adjunct in Biology), Clark University (2014-present)**

**Assistant Professor, Graduate School of Geography (Adjunct in Biology), Clark University (2008-2014)**

Course Offerings: *Weather and Climate, Introduction to Hydrology, Terrestrial Ecosystems and Global Change, Remote Sensing of Global Environmental Change, Advanced Topics in Biogeosciences*

**Visiting Fellow, Hawkesbury Institute for the Environment, University of Western Sydney (2015-2016)**

Ecosystem Function and Global Change Lab of Prof. Belinda Medlyn

**Visiting Professor, Swiss Federal Institute of Technology, Lausanne, Switzerland (2011 Fall)**

Environmental Fluid Mechanics and Hydrology Lab of Prof. Marc Parlange

**Research Scientist, Goddard Earth Sciences and Technology Center, University of Maryland Baltimore**

**County**, based in the NASA Goddard Space Flight Center's Biospheric Sciences Branch (2007-2008), *Impacts of Disturbance History and Climate on Carbon Fluxes from North American Forests*, funded by a NASA award to G. James Collatz and Jeffrey Masek

**Research Scientist, Natural Resource Ecology Lab, Colorado State University (2004-2007)**

*African Carbon Exchange*, funded by NOAA and NASA awards to Niall P. Hanan

**Research Assistant, Civil and Environmental Engineering, Duke University (2002-2004)**

*Separating soil-atmosphere and canopy-atmosphere exchange of CO<sub>2</sub> by micrometeorological methods*, funded by DOE NIGEC award to John D. Albertson

**Research Assistant, Department of Environmental Studies, University of Virginia (2001-2002)**

*Separating soil-atmosphere and canopy-atmosphere exchange of CO<sub>2</sub> by micrometeorological methods*, funded by DOE NIGEC award to John D. Albertson

**Teaching Assistant, Department of Environmental Studies, University of Virginia (2000)**

*Hydrological Transport Processes*, graduate-level Lecture / Lab

**Research Assistant, Department of Earth Resources, Colorado State University (1998-2000)**

*Riparian vegetation studies on the Green and Yampa Rivers*, funded by the US Bureau of Reclamation award to David J. Cooper

**Wetlands Regulation Technician, hired by consultant David J. Cooper (1998)**

*Summarizing local and state government regulations and policy practices to advise Larimer County, CO*

**Everglades Restoration and Forestry Issues Intern, Defenders of Wildlife (1997)**

*Programmatic and organizational support staff and staff-writer for the Everglades Coalition, Mary Munson*

**Restoration Ecology Technician, Bandelier National Monument (1996)**

*Monitoring vegetation change and soil erosion in response to restoration treatments in Pinyon-Juniper ecosystems*, Directed by National Park Service employees Brian Jacobs and Richard Gatewood

**Teaching Assistant, Department of Biology, Bucknell University (1994)**

*Population and Evolutionary Biology*, undergraduate-level Lecture/Lab

## RESEARCH INTERESTS

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ecosystem ecology; land-atmosphere exchange; global carbon cycle; ecohydrology; evapotranspiration; ecological modeling; global change; plant water and carbon relations; integrating remote sensing, field observations, and ecological modeling

## GRANTS AND FELLOWSHIPS

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**NASA Carbon Monitoring System (2016-2019, 3 year duration)**

**\$1,098,754**

*“Tools to Bridge the Gap Between Static CMS Maps, Models, and Stakeholders”*

PI: R Kennedy (OSU); Co-I: CA Williams (Clark, \$144,608), D Bachelet (CBI), D Huntzinger (NAU), J Fisher (JPL), Z Yang (OSU)

**NASA EVS-2: ACT-America (2016-2019, 4 year duration)**

**\$305,449**

*“Surface Biogenic Carbon Flux Priors from CASA: Priors, Error Structures and Reducing Parameter Uncertainties”*

PI: CA Williams; Lead Science PI for ACT-America: K Davis (Penn State U)

**UWS HIE Research Exchange Visitation (2015-2016, 1 year duration)**

**\$36,000**

*“Identifying Hierarchical Drought Responses of Ecosystems with Integration and Synthesis of Experiments and Monitoring Sites to Improve Treatment in Ecosystem - Climate Models”*

PI: CA Williams, Hosts: B Medlyn, R Duursma (UWS HIE)

**NASA Carbon Monitoring System (2014-2016, 3 year duration)**

**\$858,000**

*“Translating Forest Change to Carbon Emissions and Removals for Tier 3 MRV”*

PI: CA Williams (Clark, \$552,861), Co-PIs: G James Collatz, J Masek (NASA GSFC); G Moisen (USFS)

**NASA Carbon Cycle Science (2014-2016, 3 year duration)**

**\$1,305,904**

*“Quantification of the regional impact of terrestrial processes on the carbon cycle using atmospheric inversions”*

PI: K Davis (Penn State U), Co-Is: T Lauvaux & N Miles & S Richardson (PSU), A Jacobson & A Andrews (NOAA ESRL), A Schuh & S Ogle (CSU), J Collatz (NASA GSFC), C Williams (Clark portion \$74,000), D Hollinger (USDA-FS)

<b>NSF, Long-Term Ecological Research V Site Grant (2012-2017, 5 year duration)</b>	<b>\$10,000</b>
<i>“HFR LTER V: New Science, Synthesis, Scholarship, and Strategic Vision for Society”</i>	
PI: D Foster (Harvard), Co-I’s: many including CA Williams (sole from Clark U)	
<b>NASA Earth and Space Science Fellowship (2011-2014, 3 year duration)</b>	<b>\$90,000</b>
<i>“Albedo and Evapotranspiration Consequences of Bark Beetle Outbreaks as Detected by Remote Sensing in Coniferous Forests, Rocky Mountains, USA”</i>	
PI: CA Williams, Student: M Vanderhoof	
<b>NASA, ROSES, Science of Terra and Aqua (2011-2014, 3 year duration)</b>	<b>\$866,082</b>
<i>“Albedo Trends Related to Land Cover Change and Disturbance: A Multi-sensor Approach”</i>	
PI: J Masek, Co-I’s: F Gao, Y Shuai, CA Williams (portion \$180,381), C Schaaf	
<b>NASA GSFC, Biospheric Sciences Graduate Student Support (2010, 3 month duration)</b>	<b>\$5,814</b>
<i>“Biogeochemical and Biophysical Consequences of Disturbances in Forests of the Western United States”</i>	
PI: CA Williams, Student: B Ghimire	
<b>NASA, ROSES, Terrestrial Ecology Program (2010-2013, 3 year duration)</b>	<b>\$654,918</b>
<i>“Impacts of Disturbance History and Climate on Carbon Fluxes from North American Forests”</i>	
PI: GJ Collatz, Co-I’s: J Masek, CA Williams (portion \$183,932)	
<b>NSF, Research Experience for Undergraduates Supplement (2009-2010)</b>	<b>\$11,919</b>
<i>“Carbon Dioxide and Water Flux Responses to Extreme Weather and Climate Anomalies: A Fluxnet Synthesis”</i>	
PI: CA Williams	
<b>NSF, Carbon and Water in the Earth System Program (2007-2011)</b>	<b>\$539,840</b>
<i>“Carbon Dioxide and Water Flux Responses to Extreme Weather and Climate Anomalies: A Fluxnet Synthesis”</i>	
PI: CA Williams	
<b>Dean’s Reserve Fellowship, University of Virginia (2001)</b>	<b>\$25,000</b>
<b>Knight Research Fellowship, Bucknell University (1995)</b>	<b>\$3,000</b>

## HONORS AND AWARDS

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Hayden Faculty Fellowship Award for Excellence in Teaching, Scholarship, and University Engagement, 2015  
 Excellence in Reviewing Award, Journal of Geophysical Research - Biogeosciences. 2013  
 Excellence in Reviewing Award, Biogeochemistry. 2013  
 Hodgkins Junior Faculty Award for Research and Teaching Excellence, Clark University 2013  
 Highlighted, & Most Accessed Article in Summer 2012, Water Resources Research, Williams CA et al. 2012  
 Most Accessed Article in Spring 2012, Global Biogeochemical Cycles, Williams CA et al. 2012  
 Highlighted Young Scientist, FLUXNET Newsletter, 2009  
 Highly Accessed Article, Carbon Balance and Management, 2007  
 Robert Ellison Award for Excellence in Interdisciplinary Research, University of Virginia, 2002  
 Outstanding Paper Award, Student Water Symposium, Colorado State University, 1999  
 Sigma Xi Induction, Bucknell University, 1996  
 Most Outstanding RA, Bucknell University, 1996  
 Outstanding Service Award, Bucknell University, 1996

## INVITED PRESENTATIONS

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AmeriFlux Science Meeting, Boulder, CO, September 2016  
 Sydney Plant Ecophysiology Group Meeting, University of Technology Sydney, Sydney, NSW, March 2016  
 Hawkesbury Institute for the Environment, Western Sydney University, Richmond, NSW, October 2015  
 Clark University Climate Change Teach-In, Worcester, MA, February 2015  
 Yale School of Forestry & Environmental Studies, New Haven, CT, March 2015  
 Emergent Patterns in Catchment Water, Energy, and Carbon Balances (H43L), AGU Fall Meeting, Dec 2014  
 Harvard Forest Symposium, Petersham, MA, March 2014  
 Biology Seminar Series, University of New Mexico, Albuquerque, NM, March 2014  
 Climate Extremes and Biogeochemical Cycles, Seefeld, Austria, April 2013  
 Darwin Festival, Salem State University, Salem, MA, February 2013  
 Climate and Disturbance Extremes, AGU Fall Meeting, San Francisco, CA, December 2012  
 Fire and Biogeochemistry in the Earth System, AGU Fall Meeting, San Francisco, CA, December 2012  
 Marine Biological Lab, Ecosystem Science Speaker Series, Woods Hole, MA, November 2012  
 Yale Climate and Energy Institute Speaker Series, New Haven, CT, November 2012  
 Biology Seminar Series, College of the Holy Cross, April 2012  
 Eidgenössische Technische Hochschule - Zurich, Zurich, Switzerland, December 2011  
 Laboratoire des Sciences du Climat et l'Environnement, Gif sur Yvette, France, December 2011  
 Eidgenössische Technische Hochschule - Zurich, Zurich, Switzerland, November 2011  
 École Polytechnique Fédérale du Lausanne, Lausanne, Switzerland, September 2011  
 Max Planck Institute for Biogeochemistry, Jena Germany, September 2011  
 Harvard University, Herbarium Speaker Series, Cambridge, MA, March 2011  
 Clark University, Department of Biology Speaker Series, Worcester, MA, December 2010  
 Penn State University, Earth and Environmental Systems Institute, State College, PA, November 2010  
 Boston University, Geography and Environment Speaker Series, Boston, MA, April 2010  
 Harvard Forest Speaker Series, Petersham, MA, November 2009  
 Ameriflux Principal Investigators Meeting, Washington, DC, September 2009  
 Global Climate Observing System Workshop on Global Net Primary Production, JRC, Ispra, Italy, June 2009  
 Clark University, George Perkins Marsh Institute, Worcester, MA, April 2009  
 American Geophysical Union Fall Meeting, San Francisco, CA, December 2007  
 American Geophysical Union Fall Meeting, San Francisco, CA, December 2007  
 University of Maryland, College Park, Department of Atmospheric and Oceanic Sciences, October 2007  
 Swiss NCCR Climate Summer School, Grindelwald, Switzerland, August 2007  
 Max Planck Institute for Biogeochemistry, Jena, Germany, April 2007  
 Georgia Institute of Technology, School of Earth and Atmospheric Sciences, Atlanta, GA January 2007  
 ETH Zürich, Department of Environmental Sciences, August 2006  
 University of California, Santa Barbara, Bren School of the Environment, February 2006  
 Ecological Society of America Meeting, Montreal, Canada, August 2005  
 Colorado State University, Natural Resource Ecology Laboratory, November 2004

## PEER-REVIEWED RESEARCH MANUSCRIPTS

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[citations in Google Scholar, September 2016, *h-factor* = 25] |Contribution Codes as below|

Codes: **C**onceived of work; **A**nalysis performed; **I**deas for analysis; **W**riting; **E**ditied text; **D**ata provider

\*Williams Lab Undergraduate Student; \*\*Williams Lab Graduate Student; \*\*\*Williams Lab Postdoctoral Researcher

**IN REVIEW OR REVISION**

60. Medlyn BE, De Kauwe MG, Lin Y-S, Knauer J, Duursma RA, **Williams CA**, Arneth A, Clement R, Isaac P, Limousin J-M, Linderson M-L, Meir P, St Martin-Paul, N, van Gorsel E, Wingate L (in review) “*Discrepancies between leaf and ecosystem measures of water-use efficiency*”. [I,E]
59. Schimel D, Sellers P, Moore III B, and co-authors including **Williams CA** (in review) “*Observing the Carbon-Climate System*”. [I,E]
58. **Jiao T\*\***, **Williams CA**, Ghimire G, Masek J, Gao F, Schaaf C (in review) “*Global Climate Forcing from Albedo Change Caused by Large-Scale Deforestation and Reforestation: Quantification and Attribution of Geographic Variation*”. [C,A,I,W,E,D]
57. Elmes A, Rogan J, **Williams CA**, Ratick S, Nowak D, Martin D (in review) “*Effects of urban tree canopy loss on land surface temperature magnitude and timing: Merging LiDAR and Landsat-8 Thermal Infrared Sensor (TIRS) data*”. [I,E]
56. Kappel AP\*\*, Trotter RT, Keena M, Rogan J, **Williams CA** (in review) “*Mapping of the Asian Longhorned Beetle’s Time to Maturity and Invasion Risk for the Contiguous United States*”. [A,I,W,E]
55. Ghimire B\*\*, **Williams CA** (in revision) “*On detecting and quantifying the influence of equifinality on parameter estimation: New Bayesian methods and demonstration with fusion of eddy covariance data and an ecosystem model*”. [C,A,I,W,E,D]

**PUBLISHED**

54. Keenan TF, Prentice IC, Canadell JG, **Williams CA**, Wang H, Raupach M, Collatz GJ (2016) “*Recent pause in the growth rate of atmospheric CO<sub>2</sub> associated with enhanced terrestrial uptake*”, Nature Communications, in press. [I,W,E]
53. Novick KA, Ficklin DL, Stoy PC, **Williams CA**, Bohrer G, Oishi AC, Papuga SA, Blanken PD, Noormets A, Sulman B, Scott RL, Wang L, Phillips RP (2016) “*On the rising importance of atmospheric demand as a constraint on ecosystem productivity and plant water use*”, Nature Climate Change, Online Publication 09/05/2016, <http://dx.doi.org/10.1038/nclimate3144>. [I,E]
52. **Williams CA**, **Gu H\*\*\***, **MacLean R\*\***, Masek J, Collatz GJ (2016) “*Disturbance and the Carbon Balance of US Forests: A Quantitative Review of Impacts from Harvests, Fires, Insects, and Droughts*”, Global and Planetary Change, 143: 66-80, doi:10.1016/j.gloplacha.2016.06.002. [C,A,I,W,E,D]
51. **Gu H\*\*\***, **Williams CA**, Ghimire B, Zhao F, Huang C (2016) “*High-resolution forest carbon flux mapping and monitoring in the Pacific Northwest with time since disturbance and disturbance legacies inferred from remote sensing and inventory data*”, Biogeosciences Discussions, doi:10.5194/bg-2016-163. [C,A,I,W,E,D]
50. van Dijk AIJM, Gash JH, van Gorsel E, and FLUXNET Synthesis Group members including **Williams CA** (2015) “*Rainfall interception and the coupled surface water and energy balance*”, Agricultural and Forest Meteorology, 214-215: 402-415. [3] [I,E]
49. Bahn M, Reichstein M, Guan K, Moreno JM, **Williams CA** (2015) “*Preface: Climate extremes and biogeochemical cycles in the terrestrial biosphere: impacts and feedbacks across scales*”, Biogeosciences, 12(15): 4827-4830, doi: 10.5194/bg-12-4827-2015. [1] [I,E]
48. Ghimire B\*\*, **Williams CA**, Collatz GJ, Vanderhoof M\*\*, Rogan J, Kulakowski D, Masek JG (2015) “*Large Carbon Release from Bark Beetle Outbreaks across Western United States Imposes Climate Feedback*”, Global Change Biology, doi: 10.1111/gcb.12933. [7] [C,I,W,E,D]
47. Ghimire B\*\*\*, **Williams CA**, Masek J, Gao F, Wang Z, Schaaf C, He T (2015) “*Global albedo change and radiative cooling from anthropogenic land-cover change, 1700 to 2005 based on MODIS, land-use harmonization, radiative kernels, and reanalysis*”, Geophysical Research Letters, doi:10.1002/2014GL061671. [4] [C,A,I,W,E,D]

46. Vanderhoof ME\*\*, **Williams CA** (2014) “*Persistence of evapotranspiration impacts from mountain pine beetle outbreaks in lodgepole pine forests, south-central Rocky Mountains*”, *Agricultural and Forest Meteorology*, 200, 78-91. [4] |C,A,I,W,E,D|
45. **Williams CA** (2014) “*Heat and drought extremes likely to stress ecosystem productivity equally or more in a warmer, CO<sub>2</sub> rich future*”, *Environmental Research Letters*, 9, 101002, doi:10.1088/1748-9326/9/10/101002. [3] |C,A,I,W,E,D|
44. Gao F, He T, Wang Z, Ghimire B\*\*\*, Shuai Y, Masek J, Schaaf C, **Williams CA** (2014) “*Multi-scale Climatological Albedo Look-up Maps Derived from MODIS BRDF/Albedo Products*”, *Journal of Applied Remote Sensing*, 8(1), 083532, doi:10.1117/1.JRS.8.083532. [6] |I,W,E|
43. Liu L, Jafarov EE, Schaefer KM, Jones BM, Zebker HA, **Williams CA**, Rogan J, Zhang T (2014) “*InSAR detects increase in surface subsidence caused by an Arctic tundra fire*”, *Geophysical Research Letters*, doi:10.1002/2014GL060533. [12] |I,W,E|
42. Khomik M\*\*\*, **Williams CA**, Vanderhoof MK\*\*, MacLean R\*\*, Dillen SY (2014) “*On the causes of rising gross ecosystem productivity in a regenerating clearcut environment: leaf area, species composition, or environmental conditions*”, *Tree Physiology*, doi:10.1093/treephys/tpu049. [1] |C,A,I,W,E,D|
41. Vanderhoof ME\*\*, **Williams CA**, Shuai Y, Jarvis D, Kulakowski D, Masek J (2014) “*Albedo-induced radiative forcing from mountain pine beetle outbreaks in forests, south-central Rocky Mountains: magnitude, persistence, and relation to outbreak severity*”, *Biogeosciences*, 11, 563-575, doi:10.5194/bg-11-563-2014. [8] |I,W,E|
40. Valentini R, Arneth A, Bombelli, A, Castaldi S, Cazzolla Gatti R, Chevallier F, Ciais P, Grieco E, Hartmann J, Henry M, Houghton RA, Jung M, Kutsch WL, Malhi Y, Mayorga E, Merbold L, Papale D, Peylin P, Raymond PA, Santini M, Sitch S, Vaglio Laurin G, van der Werf GR, **Williams CA**, Scholes RJ (2014) “*The full greenhouse gases budget of Africa: synthesis, uncertainties and vulnerabilities*”, *Biogeosciences*, 11, 381-407, doi:10.5194/bg-11-381-2014. [39] |I,W,E,D|
39. **Williams CA**, Collatz GJ, Masek J, Huang C, Goward S (2014) “*Impacts of disturbance history on forest carbon stocks and fluxes: Merging satellite disturbance mapping with forest inventory data in a carbon cycle model framework*”, *Remote Sensing of Environment*, 151:57-71, <http://dx.doi.org/10.1016/j.rse.2013.10.034>. [11]
38. Vanderhoof ME\*\*, **Williams CA**, Ghimire B\*\*, Rogan J (2013) “*Impact of mountain pine beetle outbreaks on forest albedo and radiative forcing as derived from MODIS, Rocky Mountains, USA*”, *Journal of Geophysical Research – Biogeoscience*, 118, 1-11, doi:10.1002/jgrg.20120. [8] |I,W,E|
37. **Williams CA**, Vanderhoof M\*\*, Khomik M\*\*\*, Ghimire B\*\* (2013) “*Post-clearcut dynamics of carbon, water and energy exchanges in a mid-latitude temperate, deciduous broadleaf forest environment*”, *Global Change Biology*, 20: 991-1007, DOI: 10.1111/gcb.12388. [12]
36. Panday PK\*\*, **Williams CA**, Frey KE, Brown ME (2013) “*Application and evaluation of a snowmelt runoff model in the Tamor River basin, eastern Himalaya using Markov Chain Monte Carlo (MCMC) data assimilation approach*”, *Hydrological Processes*, DOI: 10.1002/hyp.10005. [19] |I,W,E|
35. Marshall M, Tu K, Funk C, Michaelsen J, Williams P, **Williams CA**, Ardö J, Boucher M, Cappelaere B, de Grandcourt A, Nickless, A, Nouvellon Y, Scholes R, Kutsch W (2013) “*Improving operational land surface model canopy evapotranspiration in Africa using a direct remote sensing approach*”, *Hydrology and Earth System Sciences*, 17, 1079-1091, doi:10.5194/hess-17-1079-2013. [19] |E,D|
34. Vanderhoof M\*\*, **Williams CA**, Pasay M\*, Ghimire B\*\* (2012) “*Controls on the rate of CO<sub>2</sub> emission from woody debris in clearcut and coniferous forest environments of central Massachusetts*”, *Biogeochemistry*, DOI:10.1007/s10533-012-9810-4. [11] |I,W,E,D|

33. Cuba N, Rogan J, Christman Z, **Williams CA**, Schneider LC, Lawrence D, Millones M (2012) “*Modelling dry season deciduousness in Mexican Yucatán forest using MODIS EVI data (2000-2011)*”, GIScience & Remote Sensing, DOI:10.1080/15481603.2013.778559. [13] |I,W,E|
32. Ghimire B\*\*, **Williams CA**, Collatz GJ, Vanderhoof M\*\* (2012) “*Fire induced regional carbon emissions and fluxes derived by parameterizing post-fire carbon flux trajectories for western United States forests: Accounting for variation across forest types, fire severity, and carbon pools*” Journal of Geophysical Research – Biogeosciences, 171, G03036, doi:10.1029/2011JG001935. [24] |C,I,W,E,D|
31. Schwalm CR\*\*\*, **Williams CA**, Schaefer K, Baldocchi D, Goldstein AH, Law BE, Oechel WC, Paw U KT, Scott R (2012) “*Reduction in Carbon Uptake During Turn of the Century Drought in Western North America*”. Nature-Geoscience, 29 July, doi:10.1038/NCEO1529. [100] |C,I,W,E|
30. Schaefer K, Schwalm C\*\*\*, **Williams CA**, Arain MA, Barr A, Chen JA, Davis KJ, Dimitrov D, Hilton TW, Hollinger DY, Humphreys E, Poulter B, Raczka BM, Richardson AD, Sahoo A, Thornton P, Vargas R, Verbeeck H, Anderson R, Baker I, Black TA, Bolstad P, Chen J, Curtis PS, Desai AR, Dietze M, Dragoni D, Gough C, Grant RF, Gu L, Jain A, Kucharik C, Law B, Liu S, Lokipitiya E, Margolis HA, Matamala R, McCaughey JG, Monson R, Munger JW, Oechel W, Peng C, Price DT, Ricciuto D, Riley WJ, Roulet N, Tian H, Tonitto C, Torn M, Weng E, Zhou X (2012) “*A model-data comparison of Gross Primary Productivity: Results from the North American Carbon Program Site Synthesis*”, Journal of Geophysical Research – Biogeosciences, 117, G03010, doi:10.1029/2012JG001960. [125] |I,W,E|
29. **Williams CA**, Reichstein M, Buchmann N, Baldocchi D, Beer C, Schwalm C\*, Wohlfahrt G, Hasler N, Bernhofer C, Foken T, Papale D, Jung M, Schymanski S, Schaefer K (2012) “*Climate and vegetation controls on the surface water balance: synthesis of evapotranspiration measured across a global network of flux towers*”, Water Resources Research, 48, W06523, doi:10.1029/2011WR011586. [79]
28. **Williams CA**, Collatz GJ, Masek J, Goward S (2012) “*Carbon consequences of forest disturbance and recovery across the conterminous United States*”, Global Biogeochemical Cycles, 26: GB1005, doi:10.1029/2010GB003947. [72]
27. Jung M, Reichstein M, Cescatti A, Richardson A, Margolis H, Arain A, Arneth A, Bonal D, Chen J, Gianelle D, Gobron N, Kiely G, Kutsch W, Lasslop G, Law B, Lindroth A, Merbold L, Montanani L, Moors E, Papale D, Sottocornola M, Vaccari F, **Williams C** (2011) “*Global patterns of land - atmosphere fluxes of carbon dioxide, latent heat, and sensible heat derived from eddy covariance, satellite, and meteorological observations*”, Journal of Geophysical Research – Biogeosciences, 116, G00J07, doi:10.1029/2010JG001566. [300] |I,E,D|
26. Schwalm CR\*\*\*, **Williams CA**, Schaefer K (2011) “*Carbon consequences of global hydrologic change, 1948-2009*”, Journal of Geophysical Research – Biogeosciences, 116, G03042, doi:10.1029/2011JG001674. [15] |C,I,W,E|
25. Schwalm CR\*\*\*, **Williams CA**, Schaefer K, Baker I, Collatz GJ, Roedenbeck C (2011) “*Does terrestrial drought explain global CO<sub>2</sub> flux anomalies induced by El Niño?*”, Biogeosciences, 8, 2493-2506, doi:10.5194/bg-8-2493-2011. [16] |C,I,W,E|
24. **Williams CA**, Hanan NP (2011) “*ENSO and IOD teleconnections for African ecosystems: Evidence of destructive interference between climate oscillations*”, Biogeosciences, 8: 27-40, doi:10.5194/bg-8-27-2011. [18]
23. Schwalm CR\*\*\*, **Williams CA**, Schaefer K, Anderson R, Arain MA, Baker I, Barr A, Black TA, Chen G, Chen JM, Ciais P, Davis KJ, Desai A, Dietze M, Dragoni D, Fischer ML, Flanagan LB, Grant R, Gu L, Hollinger D, Izaurrealde RC, Kucharik C, Lafleur P, Law BE, Li L, Li Z, Liu S, Lokupitiya E, Luo Y, Ma S, Margolis H, Matamala R, McCaughey H, Monson RK, Oechel WC, Peng C, Poulter B, Price DT, Ricciutto DM, Riley W, Sahoo AK, Sprintsin M, Sun J, Tian H, Tonitto C, Verbeeck H, Verma SB (2010) “*A model-data intercomparison of CO<sub>2</sub> exchange across North America: Results from the North American Carbon Program site synthesis*”, Journal of Geophysical Research – Biogeosciences, 115, G00H05, doi:10.1029/2009JG001229. [166] |C,I,W,E,D|

22. Jung M, Reichstein M, Ciais P, Seneviratne SI, Sheffield J, Bonan G, Cescatti A, Chen J, de Jeu R, Dolman H, Eugster W, Gerten D, Gianelle D, Gobron N, Goulden ML, Heinke J, Kimball J, Law BE, Montagnani L, Mu Q, Mueller B, Oleson K, Papale D, Richardson AD, Rouspard O, Running S, Tomelleri E, Viovy N, Weber U, **Williams CA**, Wood E, Zaehle S, Zhang K (2010) “*Recent decline in the global land evapotranspiration trend due to limited moisture supply*”, Nature 467: 951-954, doi:10.1038/nature09396. [586] [I,E,D]
21. Yi C, Ricciuto D, Runze L, Wolbeck J, Xu X, Nilsson M, Aires L, Albertson JD, Ammann C, Arain MA, de Araujo AC, Aubinet M, Aurela M, Barcza Z, Barr A, Berbigier P, Beringer J, Bernhofer C, Black AT, Bolstad PV, Bosveld FC, Broadmeadow MSJ, Buchmann N, Burns SP, Cellier P, Chen J, Chen J, Ciais P, Clement R, Cook BD, Curtis PS, Dail DB, Dellwik E, Delpierre N, Desai AR, Dore S, Dragoni D, Drake BG, Dufrêne E, Dunn A, Elbers J, Eugster W, Falk M, Feigenwinter C, Flanagan LB, Foken T, Frank J, Fuhrer J, Gianelle D, Goldstein A, Goulden M, Granier A, Grünwald T, Gu L, Guo H, Hammerle A, Han S, Hanan NP, Haszpra L, Heinesch B, Helfter C, Hendriks D, Hutley LB, Ibrom A, Jacobs C, Johansson T, Jongen M, Katul G, Kiely G, Klumpp K, Knohl A, Kolb T, Kutsch WL, Lafleur P, Laurila T, Leuning R, Lindroth A, Liu H, Loubet B, Manca G, Marek M, Margolis HA, Martin TA, Massman WJ, Matamala R, Matteucci G, McCaughey H, Merbold L, Meyers T, Migliavacca M, Miglietta F, Misson L, Mölder M, Moncrieff J, Monson RK, Montagnani L, Montes-Helu M, Moors E, Moureaux C, Mukelabai MM, Munger JW, Myklebust M, Nagy Z, Noormets A, Oechel W, Oren R, Pallardy SG, Paw U KT, Pereira JS, Pilegaard K, Pintér K, Pio C, Pita G, Powell TL, Rambal S, Randerson JT, von Randow C, Rebmann C, Rinne J, Rossi F, Roulet N, Ryel RJ, Sagerfors J, Saigusa N, Sans MJ, Mugnozza G-S, Schmid HP, Seufert G, Siqueira M, Soussana J-F, Starr G, Sutton MA, Tenhunen J, Tuba Z, Tuovinen J-P, Valentini R, Vogel CS, Wang J, Wang S, Wang W, Welp LR, Wen X, Wharton S, Wilkinson M, **Williams CA**, Wohlfahrt G, Yamamoto S, Yu G, Zampedri R, Zhao B, Zhao X (2010) “*Climate control of terrestrial carbon exchange across biomes and continents*”, Environmental Research Letters, 5: 034007, doi:10.1088/1748-9326/5/3/034007. [83] [D]
20. Beer C, Reichstein M, Tomelleri E, Ciais P, Jung M, Carvalhais N, Rödenbeck C, Altaf Arain M, Baldocchi D, Bonan GB, Bondeau A, Cescatti A, Lasslop G, Lindroth A, Lomas M, Luysaert S, Margolis H, Oleson KW, Rouspard O, Veenendaal E, Viovy N, **Williams CA**, Woodward I, Papale D (2010) “*Terrestrial gross carbon dioxide uptake: Global distribution and covariation with climate*”, Science, 329 (5993): 834-838, doi: 10.1126/science.1184984. [721] [I,E,D]
19. Schwalm CR\*\*\*, **Williams CA**, Schaefer K, Arneth A, Bonal D, Buchmann N, Chen J, Law BE, Lindroth A, Luysaert S, Reichstein M, Richardson AD (2010) “*Assimilation exceeds respiration sensitivity to drought: A FLUXNET synthesis*”, Global Change Biology, 16, 657-670, doi: 10.1111/j.1365-2486.2009.01991.x. [127] [C,A,I,W,E,D]
18. **Williams CA**, Hanan N, Scholes RJ, Kutsch W (2009) “*Complexity in water and carbon dioxide fluxes following rain pulses in an African savanna*”, Oecologia, 161(3): 469-480, doi:10.1007/s00442-009-1405-y. [62]
17. Beer C, Ciais P, Reichstein M, Baldocchi D, Law BE, Papale D, Soussana J-F, Ammann C, Buchmann N, Frank D, Gianelle D, Janssens IA, Knohl A, Koestern B, Moors E, Rouspard O, Verbeeck H, Vesala T, **Williams CA**, Wohlfahrt G (2009) “*Temporal and among-site variability of inherent water-use efficiency at the ecosystem scale*”, Global Biogeochemical Cycles, 23, GB2018, doi:10.1029/2008GB003233. [129] [I,E,D]
16. Archibald SA, Kirton A, van der Merwe MR, Scholes RJ, **Williams CA**, Hanan N (2009) “*Drivers of inter-annual variability in Net Ecosystem Exchange in a semi-arid savanna ecosystem, South Africa*”, Biogeosciences, 6, 251-266. [36] [I,E,D]
15. **Williams CA**, Hanan NP, Baker I, Collatz GJ, Berry J, Denning AS (2008) “*Interannual variability of photosynthesis across Africa and its attribution*”, Journal of Geophysical Research – Biogeosciences 113, G04015, doi:10.1029/2008JG000718. [29]
14. Kutsch WL, Hanan NP, Scholes RJ, McHugh I, Khubeka W, Eckhardt H, **Williams CA** (2008) “*Response of carbon fluxes to water relations in a savanna ecosystem in South Africa*”, Biogeosciences, 5, 1797-1808. [51] [I,E,D]



13. **Williams CA**, Hanan NP, Neff JC, Scholes RJ, Berry JA, Denning AS, Baker DF (2007) “*Africa and the global carbon cycle*”, Carbon Balance and Management, 2:3, doi:10.1186/1750-0680-2-3. [112]
12. **Williams CA**, Scanlon TM, Albertson JD (2007) “*Influence of surface heterogeneity on scalar dissimilarity in the roughness sublayer*”, Boundary-Layer Meteorology, 122(1):149-165, doi:10.1007/s10546-006-9097-x. [30]
11. Teuling AJ, Seneviratne SI, **Williams CA**, Troch PA (2006) “*Observed timescales of evapotranspiration response to soil moisture*”, Geophysical Research Letters, 33, L23403, doi:10.1029/2006GL028178. [67] |I,E,D|
10. **Williams CA**, Albertson JD (2006) “*Dynamical effects of the statistical structure of annual rainfall on dryland vegetation*”, Global Change Biology, 12, 777–792, doi: 10.1111/j.1365-2486.2006.01111.x. [30]
9. Emanuel RE, Albertson JD, Epstein HE, **Williams CA** (2006) “*Carbon dioxide exchange and early old-field succession*”, Journal of Geophysical Research- Biogeosciences, 111, G01011, doi: 10.1029/2005JG000069. [12] |I,E,D|
8. **Williams CA**, Cooper DJ (2005) “*Mechanisms of riparian cottonwood decline along regulated rivers*”, Ecosystems, 8: 1-14, doi:10.1007/s10021-003-0072-9. [60]
7. **Williams CA**, Albertson JD (2005) “*Contrasting short- and long-timescale effects of vegetation dynamics on water and carbon fluxes in water-limited ecosystems*”, Water Resources Research 41, W06005, doi:10.1029/2004WR003750. [44]
6. **Williams CA**, Albertson JD (2004) “*Soil moisture controls on canopy-scale water and carbon fluxes in an African savanna*”, Water Resources Research, 40, W09302, doi:10.1029/2004WR003208. [74]
5. **Williams CA** (2004) “*Hydrologic controls on vegetation function and structure in water-limited systems*”, Ph.D.Dissertation, Duke University, pp. 205.
4. Binkley, D., Ice GG, Kaye J, and **Williams CA** (2004) “*Nitrogen and phosphorus concentrations in forest streams of the United States*”, Journal of the American Water Resources Association, 40(5):1277-1291. [80] |I,D|
3. Scanlon, TM, Albertson JD, Caylor KK, and **Williams CA** (2002) “*Determining land surface fractional cover from NDVI and rainfall time series for a savanna ecosystem*”, Remote Sensing of Environment, 82(2-3): 376-388. [133] |I,E,D|
2. Prueger JH, Kustas WP, Hipps LE, Hatfield JL, Cahill A, **Williams C**, MacPherson JI, Wolde M, Albertson J, Eichinger WE, Cooper DI, Brunzell N, and Gillies R (2003) “*Spatial variability of turbulent fluxes across a corn/soybean production region in central Iowa*”, Abstract published, American Meteorological Society 17<sup>th</sup> Conference on Hydrology. [2] |D|
1. **Williams CA** (2000) “*Comparison of floodplain hydrology and cottonwood water relations between a regulated and an unregulated river in northwestern Colorado*”, MS Thesis, Colorado State University.

## PEER-REVIEWED BOOK CHAPTERS

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3. Hanan NP, Boulain N, **Williams CA**, Scholes RJ, Archibald S (2010) “*Functional convergence in ecosystem carbon exchange in adjacent savanna vegetation types of the Kruger National Park, South Africa*”, In: Ecosystem Function in Global Savannas: Measurement and Modeling at Landscape to Global Scales, Ed. M.J. Hill and N.P. Hanan, CRC Taylor and Francis. [2] |I,W,E,D|
2. **Williams CA** (2010) “*Integration of remote sensing and modeling to understand carbon fluxes and climate interactions in Africa*”, In: Ecosystem Function in Global Savannas: Measurement and Modeling at Landscape to Global Scales, Ed. M.J. Hill and N.P. Hanan, CRC Taylor and Francis. [3]
1. Albertson JD, **Williams CA**, Scanlon TM, and Montaldo N (2006) “*Soil moisture controls on water and carbon fluxes in semi-arid regions*”, In: Dryland Ecohydrology, eds. P. D’Odorico, A. Porporato, Springer, Netherlands, pp. 67-83. [2] |A,I,W,E,D|

## CONFERENCE PRESENTATIONS & RESEARCH SEMINARS (primary presenter only)

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- Williams CA (invited talk)**, “*Cutting Trees Cools?: Carbon, Water, and Energy Fluxes and Radiative Forcing Following Temperate Forest Clearing*”, Sydney Plant Ecophysiology Group Meeting, University of Technology Sydney, Sydney, NSW, March 2016.
- Williams CA**, “*Evaporation, Surface Conductance, and Stomatal Behavior for Global Forests, Grasslands, and Savannas*”, OzFlux Annual Meeting, Hobart, Tasmania, November 2015.
- Williams CA (invited lecture)**, “*Ecosystem Responses to Droughts: Collecting Observational Anecdotes to Improve Assessment of Large-Scale Carbon Cycle Impacts of Global Changes*”, Hawkesbury Institute for the Environment, Western Sydney University, Richmond, NSW, October 2015.
- Williams CA (invited lecture)**, “*The Truth About Climate Change and Pathways to a Safer Future*”, Climate Change Teach-In, Clark University, Worcester, MA, April 2015.
- Williams CA (invited seminar)**, “*A U.S. Forest Carbon Monitoring System: Inventories, Remote Sensing and Modelling to Assess Patterns and Processes*”, Global Institute of Sustainable Forestry, School of Forestry and Environmental Studies, Yale University, New Haven, CT, February 2015.
- Williams CA (invited talk)**, “*Insights About Stomatal Behavior and Surface Conductance from Global Grasslands, Forests, and Savannas*”, American Geophysical Union Annual Fall Meeting 2014, San Francisco, CA.
- Williams CA**, “*What Matters Most for Future Land Carbon Storage*”, ICOS Open Science Conference, Brussels, Belgium, September 2014
- Williams CA**, et al. “*Ecosystem Physiology Post-Clearing in a Deciduous Forest Environment of New England*”, Harvard Forest Research Symposium, Harvard Forest, Petersham MA, March 2014
- Williams CA**, et al. “*Long-lasting Legacies from Fire, Beetles, and Drought Expanding Across the Western US: Implications for Carbon, Water, and Climate*”, Biology Department Speaker Series, University of New Mexico, Albuquerque, NM, March 2014
- Williams CA**, et al. “*Climate and Disturbance Drivers of the Terrestrial Biosphere and Feedbacks to Climate*”, New England and St Lawrence Valley Conference of the American Association of Geographers, October 2013
- Williams CA**, et al. “*Post-clearcut Dynamics of Vegetation and Carbon, Water, and Energy Exchanges in a Temperate, Deciduous Broadleaf Forest Environment*”, New England and St Lawrence Valley Conference of the American Association of Geographers, October 2013
- Williams CA**, et al. “*The Water-Carbon-Climate Nexus Affecting Ecosystems Across the Western US*”, New England and St Lawrence Valley Conference of the American Association of Geographers, October 2013
- Williams CA (invited keynote)**, et al. “*Biospheric Feedbacks from Climate Extremes and Disturbances: Looking to Large Scale Impacts*”, Climate Extremes and Biogeochemical Cycles 2013, Seefeld, Austria, April 2013
- Williams CA**, et al. “*Continental-Scale Carbon Budget Impacts of Forest Disturbances by Fires, Insects, and Harvests in the western US: Mean, Variability, Uncertainty, and Trend*”, North American Carbon Program All Investigators Meeting, Albuquerque, NM, February 2013
- Williams CA** (presenting on behalf of Schwalm CR, et al.) “*Carbon and Water Impacts of the Turn of the Century Drought in Western North America 2000-2004*”, North American Carbon Program All Investigators Meeting, Albuquerque, NM, February 2013
- Williams CA (invited keynote)** “*Down to the Last Drop: Climate Change and Water Resources in the American Southwest*”, Darwin Festival Keynote, Salem State University, Salem, MA, February 2013

- Williams CA (invited talk)** “*Fire Induced Carbon Emissions and Regrowth Uptake in Western US Forests: Variation across Forest Types, Fire Severity, and Climate Regions*”, American Geophysical Union Annual Fall Meeting 2012, San Francisco, CA.
- Williams CA (invited talk)** “*Carbon Consequences of Western US Droughts, Fires, Bark Beetles, and Harvests: Comparative Analysis and Synthesis*”, American Geophysical Union Fall Meeting 2012, San Francisco, CA.
- Williams CA (invited seminar)**, et al. “*Widespread Enhancement of Forest Growth: Evidence and Underlying Causes*”, Ecosystems Center, Marine Biological Laboratory, Woods Hole, MA, November 2012
- Williams CA (invited seminar)**, et al. “*Drought and the American West: Biophysical and Water Resource Impacts*”, Yale Climate and Energy Institute, New Haven, CT, November 2012
- Williams CA**, et al. “*Carbon Legacies from Forest Disturbances by Fires, Insects, and Harvests in the US*”, ForestSAT, Corvallis, OR, September 2012
- Williams CA**, et al. “*Ecosystem Physiology in a Post-Clearcut Environment of New England*”, ForestSAT, Corvallis, OR, September 2012
- Williams CA (invited seminar)**, et al. “*Carbon Sequestration in Forests: Current Rates and Attribution*”, Biology Seminar, College of the Holy Cross, Worcester, MA, April 2012
- Williams CA**, et al. “*Carbon Legacies of Forest Disturbances by Fires, Insects, and Harvests*”, American Association of Geographers Annual Meeting, New York City, NY, February 2012
- Williams CA (invited seminar)**, et al. “*Droughts and the Carbon Cycle: Tails from the Last Century*”, LSCE, Gif-sur-Yvette, France, December 2011
- Williams CA (invited seminar)**, et al. “*Droughts and the Carbon Cycle: Tails from the Last Century*”, ETH-Z, Zurich, Switzerland, December 2011
- Williams CA (invited seminar)**, et al. “*Carbon Sinks from Growth Enhancements in Forests*”, ETH-Z, Zurich, Switzerland, November 2011
- Williams CA (invited seminar)**, et al. “*Critical Appraisal of the US Forest Carbon Sink: Inferring Magnitudes and Mechanisms*”, Max Planck Institute for Biogeochemistry, Jena, Germany, September 2011.
- Williams CA**, et al. “*Biospheric Response to Incipient Megadrought in Western North America: The New Normal?*”, Plenary Oral Presentation, International Land-Ecosystem-Atmosphere Processes Study (iLEAPS) Conference 2011, Garmisch, Germany, September 2011
- Williams CA (invited lecture)**, “*Africa’s Carbon Cycle and Connections to Hydroclimatic Variability*”, GeoVisualization Course at EPFL, Lausanne, Switzerland, September 2011
- Williams CA**, Vanderhoof M, Munger JW, Hadley J, “*Fluxes Between the Forest & Atmosphere: Comparisons Among Tower Sites At Harvard Forest*” 2011 Harvard Forest Ecology Symposium, Petersham, MA, March 2011
- Williams CA (invited seminar)**, Collatz GJ, Masek J, “*Current Estimates of the US Forest Carbon Sink: Inferring Magnitudes and Mechanisms*” Harvard University Herbarium, Harvard University, Cambridge, MA, March 2011
- Williams CA**, Collatz GJ, Masek J, Jacobson AR, Goward SN, Cohen W, Houghton RA, Schaefer K, “*Current Estimates of the US Forest Carbon Sink: Inferring Magnitudes and Mechanisms*” 2011 NACP All-Investigators Meeting, New Orleans, LA, February 2011
- Williams CA**, Vanderhoof M, Munger JW, Hadley J, Fitzjarrald DR, “*Comparative Analysis of Carbon, Water, and Energy Exchanges in co-located mid-latitude forests at various stages of development*” American Geophysical Union, San Francisco, CA, December 2010

- Williams CA (invited seminar)**, Vanderhoof M, Munger JW, Hadley J, Fitzjarrald DR, “*Comparative Analysis of Carbon, Water, and Energy Exchanges in co-located mid-latitude forests at various stages of development*” Biology Speaker Series, Clark University, December 2010
- Williams CA (invited seminar)**, “*Climate and Disturbance Drivers of Terrestrial Carbon, Water, and Energy Balances*” Penn State University, University Park, PA, November 2010
- Williams CA**, “*Post-Disturbance Carbon, Water, and Energy Dynamics in an Early Succession New England Landscape*” Harvard Forest, Petersham, MA, July 2010
- Williams CA**, “*Climate and Vegetation Controls on the Surface Water Balance: A FLUXNET Synthesis*” Association of American Geographers, Washington, DC, April 2010
- Williams CA (invited seminar)**, “*Patterns of carbon sequestration in US forests diagnosed from integration of Landsat, FIA, and CASA*” Boston University, Geography Speaker Series, Boston, MA, April 2010
- Williams CA**, “*El Niño Southern Oscillation and the Global Carbon Cycle*” Clark University Graduate School of Geography Research Series, Worcester, MA, December 2009
- Williams CA (invited seminar)**, Collatz GJ, Masek J, “*Carbon consequences of forest disturbances across North America*”, Harvard Forest Seminar Series, Petersham, MA, November 2009
- Williams CA**, Schwalm CR, Schaefer K, Baker I, Collatz GJ, “*What causes ENSO-induced anomalies of atmospheric CO<sub>2</sub>?*”, International Carbon Dioxide Conference 8, Jena, Germany, September 2009
- Williams CA (invited talk)**, Schwalm CR, Schaefer K, “*Climatic Controls on Land-Atmosphere Exchanges of Carbon and Water: Drought, ENSO, and Budyko*”, Ameriflux PI Meeting, Washington DC, September 2009
- Williams CA (invited talk)**, “*Challenges in quantifying global net primary productivity: rates, states, fates*”, and “*Resource Limitation in Production Efficiency Models (PEMs)*”, Global Climate Observing System Inter-panel Workshop on Global Net Primary Production, JRC, Ispra, Italy June 2009
- Williams CA (invited seminar)**, “*Carbon consequences of forest disturbance and recovery across North America*”, Marsh Institute Speaker Series, Clark University, March 2009
- Williams, CA**, GJ Collatz, J Masek, “*Forest disturbances as a driver of carbon sources and sinks*”, AAG Spring Meeting, Las Vegas, 2009.
- Williams CA**, GJ Collatz, J Masek, “*Carbon consequences of forest disturbance and recovery across North America*”, AGU Fall Meeting, San Francisco, 2008.
- Williams CA**, NP Hanan, JA Berry, GJ Collatz, AS Denning, J Neff, RJ Scholes, “*Spatio-Temporal Variability of Africa’s Carbon Fluxes and Connection to Climate*”, NOAA Global Carbon Cycle PI Meeting, Silver Spring, 2007.
- Williams CA (invited seminar)**, “*Diagnosing Sensitivity of Ecosystem-Atmosphere Exchanges of Water and Carbon from Local to Global Scales*”, School of Earth and Atmospheric Sciences, Georgia Institute of Technology, Atlanta, 2007
- Williams CA**, NP Hanan, JA Berry, GJ Collatz, AS Denning, J Neff, RJ Scholes, “*Variability and Vulnerability of Carbon Cycling in Africa: Diagnosing Regional Controls with Forward and Inverse Approaches*”, CarboEurope, Crete, Greece, 2006.
- Williams CA (invited seminar)**, “*Terrestrial Carbon and Water Cycle Sciences Spanning Leaf to Global Scales*”, Department of Environmental Sciences, ETH Zürich, 2006
- Williams CA (invited seminar)**, “*Water, People, and Global Change: An Ecohydrologic Perspective on Natural Resource Dynamics*”, School of the Environment, University of California, Santa Barbara, 2006

**Williams CA**, NP Hanan, RJ Scholes, “*Seasonal controls on water and carbon fluxes responding to pulse precipitation events in dryland systems: Examples from southern African savannas*”, AGU Fall, San Francisco, 2005.

**Williams CA**, NP Hanan, RJ Scholes, AS Denning, JA Berry, J Neff, J Privette, “*Assessing the Role of Africa and the Global Carbon Cycle*”, NSF Workshop, Enhancing Collaborative Research on the Environment in SubSaharan Africa, 2005.

**Williams CA**, NP Hanan, RJ Scholes, AS Denning, JA Berry, J Neff, J Privette, “*Africa and the Global Carbon Cycle: Field networks and modeling studies of African Carbon Exchange*”, Kruger National Park Science Meeting, Skukuza, South Africa, 2005.

**Williams CA**, “*Africa and the Global Carbon Cycle: Field networks and modeling studies of African Carbon Exchange*”, Earth System Science Early Career Networking Meeting, NCAR, CO, 2005.

**Williams CA (invited)**, JD Albertson, “*Contrasting short- and long-timescale effects of vegetation dynamics on water and carbon fluxes in water-limited ecosystems*”, ESA Annual Meeting, Montreal, Canada, 2005.

**Williams CA (invited)**, “*Ecohydrologic Controls on Vegetation Function and Structure in Water-Limited Systems*”, Natural Resource Ecology Lab Seminar, 2004.

**Williams CA**, A Porporato, JD Albertson, “*Can water-limitation alone explain woody-herbaceous vegetation patterns along a large-scale rainfall gradient in southern Africa?*”, ESA Annual Meeting, Portland, OR, 2004.

**Williams CA**, “*On the use of unit response functions to expose environmental sensitivity of savanna vegetation*”, Oral seminar, Environmental Sciences Seminar, Duke University, Durham, NC, 2003.

**Williams CA**, JD Albertson, “*Predicting biomass and water use dynamics in a tree-grass savanna using a low dimensional model*”, European Geophysical Society, AGU Joint Assembly, Nice, France, 2003.

**Williams CA**, JD Albertson, HE Epstein, “*Carbon, water, and energy dynamics in a savanna mosaic: Results from an African field campaign*”, American Geophysical Union Fall Meeting, San Francisco, 2002.

**Williams, C.A.**, “*On the role of rainfall variability in controlling temporal dynamics of biomass in a savanna ecosystem*”, Nonlinear Dynamics Seminar, Duke University, Durham, NC, 2002.

**Williams CA**, HE Epstein, JD Albertson, “*Measured and Modeled Land Surface States and Fluxes in a Successional Environment*”, American Geophysical Union Fall Meeting, San Francisco, CA. 2001.

**Williams CA**, HE Epstein, JD Albertson, “*Comparing Measured and Modeled Land Surface States and Fluxes in a Successional Environment*”, National Institute of Global Environmental Change, Southeast Regional Conference, Durham, NC, 2001.

**Williams CA**, DJ Cooper, “*Water Relations and Biomass Adjustments of Cottonwood in Response to River Regulation*”, Ecological Society of America Annual Meeting, Madison, WI. 2001.

**Williams CA**, TM Scanlon, JD Albertson, “*Characterizing Turbulence and Mass and Energy Exchanges Within and Above a Forested Canopy*”, American Geophysical Union Fall Meeting, San Francisco, 2000.

**Williams CA**, JD Albertson, “*Eddy Covariance Measurements Above and Within a Forested Canopy*”, National Institute of Global Environmental Change Southeast Regional Conference, Gainesville, FL. 2000.

## FIELD EXPERIENCE

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**Annual 2015**: eddy flux, hyperspectral tram, & ecology field work, Harvard Forest, Petersham, MA

**Annual 2014**: eddy flux & ecology field work, mentor 2 NSF REUs, Harvard Forest, Petersham, MA

**Annual 2013**: eddy flux & ecology field work, mentor 2 NSF REUs, Harvard Forest, Petersham, MA

**Annual 2012**: eddy flux & ecology field work, mentor 2 NSF REUs, Harvard Forest, Petersham, MA

**Annual 2011**: eddy flux & ecology field work, mentor 2 NSF REUs, Harvard Forest, Petersham, MA

**Annual 2010:** eddy flux & ecology field work, mentor 2 NSF REUs, Harvard Forest, Petersham, MA  
**Annual 2009:** eddy flux tower deployment/maintenance, Harvard Forest, Petersham, MA  
**Spring 2006:** micrometeorological and ecological field work, flux tower data analysis, Skukuza, South Africa  
**Summer 2003:** eddy flux tower deployment coupled to soil moisture remote sensing, Sardinia, Italy  
**Spring 2002:** eddy flux tower deployment, vegetation surveys, leaf-scale ecophysiology, Ghanzi, Botswana  
**Summer 2001:** eddy flux technician, USDA Soil Moisture-Atmosphere Coupling EXperiment, Ames, IA  
**Fall 2000:** eddy flux experiment measuring above and within canopy fluxes, Charlottesville, VA  
**Summer 1999:** floodplain hydrology, plant water relations, vegetation structural assessments, Browns Park, CO  
**Summer 1998:** floodplain hydrology, plant water relations, vegetation structural assessments, Browns Park, CO  
**Fall 1996:** ecological restoration, plant community surveys, Bandelier National Monument, New Mexico

## PROFESSIONAL AFFILIATIONS

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American Geophysical Union; American Association of Geographer; Ecological Society of America; Sigma Xi Scientific Research Society; US NSF/NCAR Earth System Scientist Early Career Network; National Center for Atmospheric Research Junior Faculty Forum; FLUXNET, Ameriflux; North American Carbon Program Synthesis; Global Carbon Project, REgional Carbon Cycle Assessment Project; NASA Carbon Monitoring System; NASA Pre-Decadal Survey TECLUB; NASA Pre-Decadal Survey Carbon-Climate; SOCCR-2

## MEDIA & PUBLIC RELATIONS

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Clark Research Highlight on *Research in Australia: Droughts and Tree Mortality*, 8 July 2016  
<https://www.clarku.edu/articles/clark-geographer-australia-study-climate-change-drought-and-death-trees>  
 Christian Science Monitor Article on *CA Drought*, 19 March 2015  
 CNBC.com Article on *CA Drought and Unsafe Drinking Water*, 24 October 2014  
 Clark Research Highlight on *NASA Forest Carbon grant*: <http://news.clarku.edu/news/2014/10/23/clark-u-geographer-awarded-nasa-grants-to-study-carbon-release-and-uptake-in-u-s-forests/>  
 Christian Science Monitor Article on *CA Drought and Fires*, 2 May 2014  
 Christian Science Monitor Article on *CA Drought*, 14 January 2014  
 CNBC.com Article on *US Drought in 2013*, 26 November 2013  
 Clark Research Highlight on *Albedo Impacts of Global Land Change*, 5 December 2013  
 Clark Research Highlight on *Carbon and Water Flux Impacts of Clearcut Disturbance*, 18 October 2013  
 Harvard Forest LTER Highlight *Carbon and Water Flux Impacts of Clearcut Disturbance*, 18 October 2013  
 CNBC.com Article on *Watershed Stress Index and Future Water Resources*, 30 September 2013  
 KBOO Community Radio, 1-hr Discussion on *Drought and Water Resources in the Western US*, 20 May 2013  
 NPR WBEZ's The Morning Shift with Tony Sarabia, *Weather Extremes and Climate Change*, 8 March 2013  
 CNBC.com Article on *Drought and Food Prices*, 11 January 2013  
 AGU's Eos Transactions Feature on *Fire and Climate Change*, 8 January 2013  
 AGU & NASA Press Briefing on *Fire and Climate Change*, 4 December 2012  
 Clark Research Highlight on *Fire and Climate Change*: <http://news.clarku.edu/news/2012/12/11/geographer-briefs-media-on-fire-activity-in-a-changing-climate/>  
 New York Times, Opinion Piece on *Drought and the Western US* in Sunday Review, 11 August 2012  
 New England Cable News, *Climate Variability in New England*, 14 August, 2012  
 NPR's On-Point with Tom Ashbrook, *Megadroughts in the American West*, 14 August 2012  
 New York Times, contribution to Dot Earth Blog by Andrew Revkin on *Megadroughts and the American West*, 13 August 2012  
 Clark Research Highlight & Press Release for Nature-Geoscience paper on *Carbon and Water Impacts of Drought in the American West*, 31 July 2012, <http://news.clarku.edu/news/2012/07/31/study-2000-04-extreme-drought-points-toward-dry-new-normal/>

AGU's Eos Transactions Feature on *Climate and Vegetation Controls on River Runoff* paper published in Water Resources Research, 31 July 2012

The Christian Science Monitor article on *Drought and Food Prices*, 16 July 2012

Clark Research Highlight & Press Release for publication in Nature on *Water Limitation of Global Evaporation*, 10 October 2010

Clark Press Release for Science paper on global gross primary productivity from flux towers, June 2010

## PROFESSIONAL SERVICE

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### **Publication Reviewer** (about 40 per year)

Advances in Water Resources	Journal of Geophysical Research – Atmospheres
Agricultural and Forest Meteorology	Journal of Geophysical Research – Biogeosciences
Biogeochemistry, <b>Associate Editor</b>	Journal of Hydrology
Biogeosciences, <b>Editor</b>	Landscape Ecology
Carbon Balance and Management	Nature
Ecological Monographs <i>Guest Editor</i>	Nature Climate Change
Ecosphere	Nature Communications
Environmental Research Letters	New Phytologist
Forest Ecology and Management	Plant and Soil
Global Biogeochemical Cycles	PNAS
Global Change Biology	Remote Sensing of Environment
Global and Planetary Change	Water Resources Research
Geophysical Research Letters	Book Chapter Reviews
Journal of Climate	

### **Proposal Reviewer**

NASA ABoVE (panelist)  
 NASA Terrestrial Ecology Program (including panelist x 2)  
 National Science Foundation, Division of Earth Sciences, Hydrologic Sciences (including panelist x 2)  
 National Science Foundation, Division of Environmental Biology, Ecosystem Studies  
 National Science Foundation, Frontiers in Earth System Dynamics  
 National Science Foundation, Geography and Regional Science  
 National Science Foundation, Geography and Spatial Sciences  
 National Science Foundation, Geomorphology and Land Use Dynamics  
 National Science Foundation, Critical Zone Observatory  
 Department of Energy, National Institute for Climate Change Research  
 Department for International Development and Natural Environment Research Council ESPM, UK  
 Netherlands Organization for Scientific Research, Council for Earth and Life Sciences  
 Netherlands Organization for Scientific Research, Earth Observation Research  
 Swiss National Science Foundation, Interdisciplinary Projects in Environmental Sciences

### **External Reviewer of Personnel and Programs**

Promotion Case, National Snow and Ice Data Center, University of Colorado Boulder

### **Science Planning and Advising**

US State of the Carbon Cycle Report – 2, Lead Author, Chapter on Forests, 2016  
 NASA Carbon-Climate Pre-Decadal Survey Workshop Participant, 2014-2015  
 NASA Carbon Monitoring System Science Team, 2014-present

NASA Terrestrial Ecosystems, Carbon Cycle, Land Use, Biodiversity Workshop, 2014-present  
 Harvard Forest Research Planning, various from 2010-present  
 Global Carbon Project, Regional Carbon Cycle Attribution and Processes Workshop, May 2011  
 NASA Scoping Workshop, Savanna Remote Sensing, Fort Collins, CO, March 2010  
 Global Climate Observing System Workshop on Global Net Primary Production, JRC, Ispra, Italy, June 2009  
 EU – CarboAfrica Model Intercomparison Project Advising, Jena, Germany, April 2007  
 FLUXNET Workshop, La Thuile, Italy, February 2007  
 NSF International Programs, Research Science Planning in Sub-Saharan Africa, February 2006

### **Meeting Coordination and Judging**

Science Meeting Planning Committee and Session Chair, NACP & AmeriFlux PIM 2017  
 Session Chair, American Geophysical Union Annual Meeting 2014  
 Session Chair, North American Carbon Program All Investigators Meeting 2013  
 Session Chair, American Geophysical Union Annual Meeting 2012  
 Judged Poster Presentations, American Geophysical Union Annual Meeting 2012  
 Session Chair, ForestSAT Conference 2012  
 Session Chair, Association of American Geographers Annual Meeting 2012  
 Session Chair, FLUXNET-SPECNET Workshop, Berkeley, CA 2011  
 Session Chair, American Geophysical Union Fall Meeting 2010  
 Judged Poster and Oral Presentations, American Geophysical Union Annual Meeting 2010  
 Session Chair, American Geophysical Union Fall Meeting 2009  
 Session Chair, Association of American Geographers Annual Meeting 2009  
 Session Chair, American Geophysical Union Fall Meeting 2008  
 Session Chair, American Geophysical Union Spring Meeting 2002  
 Session Coordinator, Student Water Symposium, Colorado State University, 1999, 2000

## **UNIVERSITY & DEPARTMENTAL SERVICE**

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### **Clark University**

Director, Environmental Sciences Program 2016/17  
 Faculty Search Committee, Environmental Science & Policy 2016/17  
 George Perkins Marsh Institute Steering Committee, 2016/17  
 George Perkins Marsh Institute Steering Committee, 2015/16  
 New Faculty Mentor, John Gibbons, Biology, 2014/15  
 Environmental Science Steering Committee, School of Geography, Clark University 2014/15  
 Graduate Judicial Board (no cases heard), 2014  
 Environmental Science Steering Committee, School of Geography, Clark University 2013/14  
 Graduate Board Member (elected, 3-year term), Clark University, 2010/11, 2011/12, 2012/13  
 Graduate Board Chair, Clark University 2012/13  
 Higgins School / Presidential Lecture Event Participant, Dan Schrag Discussion & Lecture, 2014  
 Environmental Science Steering Committee, School of Geography, Clark University 2012/13  
 Task Force on Graduate Education, Clark University, 2012/13, 2013/14  
 Liberal Education and Effective Practice (LEEP) Faculty Facilitator, 2011/12, 2012/13  
 LEEP Campus Network, Clark University, 2012/13  
 LEEP Center Director Search Participation, Fall 2012  
 Academic Open House, Major's Fair, Clark University, Spring 2011, 2012, 2013, 2014



Academic Open House, Mini-Course, Clark University, Spring 2013, 2014, 2015  
 Admissions Course Preview for Prospective Undergraduate Students, Spring 2012, 2013, 2014, 2015  
 Sciences Preview Day presenter/speaker, Clark University, October 2009  
 Difficult Dialogues Participant, Session on Climate Change, Fall 2012  
 Earth System Science curriculum development, Clark University, 2008 – present  
 Poster Session Judge for Academic Spree Day 2009

### **Clark University, School of Geography**

Undergraduate Studies Committee, School of Geography, Clark University 2016/17  
 Earth System Science Major Track Director, School of Geography, Clark University 2016/17  
 Earth System Science Major Track Director, School of Geography, Clark University 2014/15  
 Undergraduate Studies Committee, School of Geography, Clark University 2014/15  
 Personnel Tenure Committee (Mark Davidson), School of Geography, Clark University 2014/15  
 Postdoctoral Researcher Search (Williams Lab), School of Geography, Clark University 2014/15  
 Earth System Science Major Track Director, School of Geography, Clark University 2013/14  
 Personnel Tenure Committee (Karen Frey), School of Geography, Clark University 2012/13  
 Earth System Science Major Track Director, School of Geography, Clark University 2012/13  
 Profile & Visibility Strategic Planning Committee, School of Geography, Clark University 2012  
 Earth System Science Strategic Planning Committee, School of Geography, Clark University 2012  
 Postdoctoral Researcher Search (Williams Lab), School of Geography, Clark University 2011/12  
 Earth Transformed 25 Years Planning Committee, School of Geography, Clark University 2011/12  
 PhD Professional Development Workshop Lead, School of Geography, Clark University 2011/12  
 Faculty Search (Human-Environment), School of Geography, Clark University 2010/11  
 Personnel Promotion Review (Robert Pontius), School of Geography, Clark University 2010/11  
 Environmental Science Steering Committee, School of Geography, Clark University 2010/11  
 Earth System Science Major Track Director, School of Geography, Clark University 2010/11  
 Graduate Studies Committee, School of Geography, Clark University 2009/10  
 Personnel Reappointment Committee (Karen Frey), School of Geography, Clark University Fall 2009/10  
 Graduate Admissions Committee, School of Geography, Clark University 2008/09  
 Atwood Event Committee, School of Geography, Clark University 2008/09  
 Poster Session Judge Geography Undergraduate Research 2009  
 Postdoctoral Researcher Search (Williams Lab), School of Geography, Clark University 2008

### **University of Virginia, Department of Environmental Sciences**

Graduate Student Association Chair 2001/02

## **COURSES TAUGHT**

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**Weather and Climate (GEOG102)** introduces the basic physical processes that control weather (insolation and heating; evaporation, condensation and precipitation; air pressure and winds) and explains the climates that result. Students are also introduced to fundamentals of scientific inquiry and knowledge with exposure to observational methods, data analysis, and forecasting. It fulfills the undergraduate Natural Science breadth requirement.

**Introduction to Hydrology (GEOG 115/205/305)** presents an overview of what governs the hydrological cycle's major components of precipitation, evapotranspiration, soil moisture, surface water, and groundwater. Core principles of physical hydrology are introduced including rainfall-runoff processes, surface and subsurface storage and flows, and land-atmosphere exchanges. Students also learn about human influences on the water cycle, and consider management of water resources at field to watershed scales.

**Terrestrial Ecosystems and Global Change (GEOG 283/333)** explores ecosystem responses to global environmental changes and how they feedback on the Earth System. Students learn about biophysical controls on energy, water, and carbon cycles, and examine how biogeography, vegetation physiology, and local to global climates influence surface-atmosphere exchanges and then feedback on biogeography and climate. The course introduces the theory, remote sensing, and computational modeling of biophysical, biogeochemical, and ecosystem dynamical processes active in shaping the terrestrial biosphere.

**Remote Sensing of Global Environmental Change (GEOG 392)** is a graduate-level seminar that investigates how satellite and aircraft remote sensing are used to monitor and understand the human and natural forces profoundly altering Earth's surface and function today. Specific topics include desertification, longer growing seasons, loss of snow and ice cover, forest disturbances, fire detection, famine early warning, boreal forest migration, carbon cycle assessments, climate variability and change, and other topics selected by students.

**Advanced Topics in Biogeosciences (GEOG 395)** is a graduate-level seminar focused on biogeosciences of the Earth system in the past, present, and future. The course explores frontier topics in this emerging field that spans the intellectual interface between Biology and the Geosciences in an attempt to understand the functions of the Earth system across multiple spatial and temporal scales. Topics span process-based theoretical, experimental, and field studies of biogeochemistry, biogeophysics, and land-atmosphere interactions.

- Fall 2008      GEOG115 *Introduction to Hydrology*, Lecture (1 unit)  
                   GEOG115 Lab *Introduction to Hydrology* (0.5 units)
- Spring 2009    GEOG102 *Weather and Climate*, Lecture (1 unit)  
                   GEOG392 *Remote Sensing of Global Environmental Change*, Seminar (1 unit)
- Fall 2009      GEOG115 *Introduction to Hydrology*, Lecture (1 unit)  
                   GEOG115 Lab *Introduction to Hydrology* (0.5 units)  
                   GEOG283/333 *Land-Atmosphere Interactions*, Lecture (1 unit)
- Spring 2010    GEOG102 *Weather and Climate*, Lecture (1 unit)  
                   GEOG102 Lab *Weather and Climate* (0.5 units)  
                   GEOG392 *Remote Sensing of Global Environmental Change*, Seminar (1 unit)
- Fall 2010      GEOG283/333 *Terrestrial Ecosystem Ecology and the Atmosphere*, Lecture (1 unit)
- Spring 2011    GEOG102 *Weather and Climate*, Lecture (1 unit)  
                   GEOG102 Lab *Weather and Climate* (0.5 units)  
                   GEOG395 *Advanced Topics in Biogeosciences*, Seminar (1 unit)
- Fall 2011      Pre-tenure Sabbatical
- Spring 2012    GEOG102 *Weather and Climate*, Lecture (1 unit)  
                   GEOG102 Lab *Weather and Climate* (0.5 units)  
                   GEOG392 *Remote Sensing of Global Environmental Change*, Seminar (1 unit)
- Fall 2012      GEOG115 *Introduction to Hydrology*, Lecture (1 unit)  
                   GEOG115 Lab *Introduction to Hydrology* (0.5 units)
- Spring 2013    GEOG102 *Weather and Climate*, Lecture (1 unit)  
                   GEOG102 Lab *Weather and Climate* (0.5 units)  
                   GEOG283/333 *Terrestrial Ecosystems and Global Change*, Lecture (1 unit)  
                   GEOG283/333 Lab *Terrestrial Ecosystems and Global Change* (0.5 units)
- Fall 2013      GEOG392 *Remote Sensing of Global Environmental Change*, Seminar (1 unit)
- Spring 2014    GEOG102 *Weather and Climate*, Lecture (1 unit)

- GEOG102 Lab *Weather and Climate* (0.5 units)
- Fall 2014 GEOG205/305 *Introduction to Hydrology*, Lecture (1 unit)  
GEOG205/305 Lab *Introduction to Hydrology* (0.5 units)
- Spring 2015 GEOG102 *Weather and Climate*, Lecture (1 unit)  
GEOG102 Lab *Weather and Climate* (0.5 units)  
GEOG283/333 *Terrestrial Ecosystems and Global Change*, Lecture (1 unit)  
GEOG283/333 Lab *Terrestrial Ecosystems and Global Change* (0.5 units)
- Fall 2015 Post-tenure sabbatical  
Spring 2016 Post-tenure sabbatical
- Fall 2016 GEOG205/305 *Introduction to Hydrology*, Lecture (1 unit)  
GEOG205/305 Lab *Introduction to Hydrology* (0.5 units)

## OTHER TEACHING EXPERIENCES

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- Research Mentor, NSF REUs, 12 students, 2008, 2009, 2010, 2011, 2012, 2013, 2014
- Research Mentor, Clark Undergraduates not in REU program, 11 students, 2009, 2010, 2011, 2012, 2013, 2014
- Keynote, "*Atmospheric Effects of Land Cover Change*", Swiss NCCR Climate Summer School, 2007
- Lecturer, "*Advanced Hydrologic Transport Processes*" course, Duke University, 2004
- Lecturer, "*Field Methods in Hydrology*" course, University of Virginia, 2002
- Private Tutor, "*Physical Hydrology*" course (1 student), University of Virginia, 2002
- Lecturer, "*Physical Hydrology*" course, University of Virginia, 2001
- Teaching Assistant, "*Hydrological Transport Processes*" course, University of Virginia, 2000
- Instructor, "*Ecology and Environment*" (3 week intensive), Exploration Program, Wellesley College, 1998
- Teaching Assistant, "*Population and Evolutionary Biology*" course, Bucknell University, 1994
- Co-curricular support of undergraduate studies in Environmental Sciences, Bucknell University, 1994

## RESEARCH & ACADEMIC ADVISING

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### Postdoctoral

- Dr. Huan Gu, Clark University, 2015-present
- Dr. Myroslava Khomik, Clark University, 2012-2013
- Dr. Bardan Ghimire, Clark University, 2012
- Dr. Christopher Schwalm, Clark University, 2008-2011

### Ph.D.

- Yu Zhou, Chair and RA Advisor, Clark University (Ph.D. Geography, expected 2019)
- Tong Jiao, Chair and RA Advisor, Clark University (Ph.D. Geography, expected 2018)
- Richard MacLean, Chair and RA Advisor, Clark University (Ph.D. Geography, expected 2016)
- Melanie Vanderhoof, Chair and RA Advisor, Clark University (Ph.D. Geography, 2014)
- Bardan Ghimire, Chair and RA Advisor, Clark University (Ph.D. Geography, 2012)
- Nathan Gill, Committee, Clark University (Ph.D. Geography, expected 2018)
- Ali Santacruz-Delgado, Committee, Clark University (Ph.D. Geography, expected 2017)
- Nate Mietkiewicz, Committee, Clark University (Ph.D. Geography, expected 2017)
- Arthur Elmes, Committee, Clark University (Ph.D. Geography, expected 2017)
- Rebecca Zengeni, Committee, Nelson Mandela Metropolitan University (Ph.D. Geosciences, 2013)

Dan Jarvis, Committee, Clark University (Ph.D. Geography, expected 2014)  
 Nick Cuba, Committee, Clark University (Ph.D. Geography, expected 2016)  
 Prajjwal Panday, Committee, Clark University (Ph.D. Geography, 2012)  
 Benoit Parmentier, Committee, Clark University (Ph.D. Geography, 2011)  
 Michael Marshall, Committee, UC Santa Barbara (Ph.D. Geography, 2010)

#### **M.A./M.S.**

Savannah Cooley, Chair, Clark University (M.S. Geographic Information Science, 2017)  
 Emily Sturdivant, Committee, Clark University (M.S. Geographic Information Science, 2015)  
 Alexander Kappel, Chair, Clark University (M.S. Geographic Information Science, 2014)  
 David Mayer, Committee, Clark University (M.A. Geography, 2014)  
 Marcus Pasay, Co-Advisor, Clark University (M.A. Environmental Science and Policy, 2013)  
 Chenyang Zhao, Co-Advisor, Clark University (M.A. GIS for Development and Environment, during 2012)  
 Dan Whitmore, Committee, Clark University, (M.S. Biology pursued 2010/11)  
 Jason Carmignani, Committee, Clark University (M.S. Biology, 2012)  
 Graham Twibell, Advisor, Clark University (M.A. Environmental Science and Policy, 2011)  
 Blaize Denfeld, Committee, Clark University (M.A. Geographic Information Science, 2011)  
 Nick Cuba, Committee, Clark University, (M.A. GIS for Development and Environment, 2011)  
 Prajna Regmi, Clark University, (M.A. GIS for Development and Environment 2009)

#### **B.A.**

Spring Pillsbury, Honors Mentor & Committee 2017, Clark University (B.A. Environmental Science, 2017)  
 Saira Khan, NOAA Fellowship Advisor 2015, Clark University (B.A. Geography, expected 2016)  
 Corey Dickinson, Geller Fellowship Advisor 2015, Clark University (B.A. Geography 2015)  
 Joshua Alaniz, NSF REU 2014, Univ of Northern Texas (B.A. Geography, 2015)  
 Alayna Johnson, NSF REU 2014, Univ Minnesota-Morris (B.A. Biology & Environmental Studies, 2015)  
 Melat Seyoum, Internship Advisor 2014, Clark University (Minor in Geography, 2015)  
 Evan Marshall, Internship Advisor 2014, Clark University (B.A. Geography, 2014)  
 Lucas Earl, NOAA Fellowship Advisor 2013, Clark University (B.A. Geography, expected 2014)  
 Lowell Chamberlain, NSF REU 2013, SUNY Envi. Sci. & Forestry (B.A. Forest Resource Management, 2013)  
 Rebecca Walker, NSF REU 2013, University of Virginia (B.A. Environmental Science & Anthropology, 2013)  
 Alexander Kappel, Honors Advisor & NSF REU 2012, Clark University (B.A. Environmental Science, 2013)  
 Thorsen Akerley, Research Advisee 2012/13, Clark University (B.A. Environmental Science, 2013)  
 Paul Quackenbush, NSF REU 2012, Middlebury College (expected 2014)  
 Marcus Pasay, NSF REU 2011, Clark University (B.A. Environmental Science, 2012)  
 Angela Marshall, Honors Advisor & NSF REU 2010, Clark University (B.A. Environmental Science, 2011)  
 Katharine Chute, NSF REU 2011, Harvard University (B.A. Organismic and Evolutionary Biology, 2011)  
 Blaize Denfeld, Honors Committee 2010, Clark University (B.A. Environmental Science, 2010)  
 Krittika Govil, Research Fellow 2010, Clark University (B.A. Environmental Science, 2011)  
 Crystal Garcia, NSF REU 2010, Baylor University (B.S. Environmental Science, 2011)  
 Graham Twibell, NSF REU 2009, Clark University (B.A. Environmental Science, 2010)  
 Michelle Smith, NSF REU 2009, Clark University (B.A. Geography, 2011)  
 Jason Carmignani, Clark University (B.A. Environmental Science, 2010)

**Academic Advisor**, Clark University, 2009/10 (7), 2010/11 (12), 2011/12 (8), 2012/13 (12), 2013/14 (13), 2013/14 (13), 2014/15 (15), 2015/16 (sabb.), 2014/15 (12)