

KELLY K. CAYLOR

Professor of Ecohydrology

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EDUCATION

2003, Ph.D., Environmental Sciences, University of Virginia
1996, B.A. *with High Distinction*, Environmental Sciences, University of Virginia

PROFESSIONAL RECORD

2022 - Associate Vice Chancellor, Office of Research, UCSB
2016 - Full Professor, Bren School of Environmental Science & Management, UCSB
2016 - Full Professor, Dept. of Geography, University of California, Santa Barbara
2016 - 2022 Director, Earth Research Institute, University of California, Santa Barbara
2014 - 2016 Director, Environmental Studies Program, Princeton University
2013 - 2016 Associate Professor, Dept. of Civil and Environmental Engineering, Princeton University
2013 - 2016 Affiliated Faculty, Dept. of Ecology and Evolutionary Biology, Princeton University
2007 - 2012 Assistant Professor, Dept. of Civil and Environmental Engineering, Princeton University
2007 - Adjunct Faculty, Department of Geography, Indiana University
2005 - 2007 Assistant Professor, Department of Geography, Indiana University
2004 - 2005 Postdoctoral Research Associate, National Center for Earth Dynamics, Department of Civil and Environmental Engineering, Princeton University
2003 - 2004 Postdoctoral Research Associate, Princeton Environmental Institute, Department of Civil and Environmental Engineering, Princeton University

RESEARCH INTERESTS

Ecohydrological dynamics, Isotope ecohydrology, Coupled natural-human systems

AWARDS & HONORS

2023 Editor's Citation for Excellence in Refereeing, Water Resources Research
2018 Fellow, National Geographic Society
2015 Commendation List for Outstanding Teaching, School of Engineering and Applied Sciences, Princeton University
2013 E. Lawrence Keyes, Jr./Emerson Electric Co. Faculty Advancement Award, Princeton University
2012 Commendation List for Outstanding Teaching, School of Engineering and Applied Sciences, Princeton University
2011 Editor's Citation for Excellence in Refereeing, Reviews of Geophysics
2009 CAREER Award, National Science Foundation
2009 Early Career Hydrological Sciences Award, American Geophysical Union
2003 Clayton Postdoctoral Fellowship, Princeton Environmental Institute
2002 DuPont Fellowship, University of Virginia
2001 Earth System Science Graduate Fellowship, NASA
1998 Governor's Fellowship, University of Virginia
1996 Distinguished Major, Department of Environmental Sciences, University of Virginia

TEACHING & COURSE INSTRUCTION

2018 - 2022	ESM203: <i>"Introduction to Earth System Science"</i> , University of California, Santa Barbara
2019 - 2020	G136: <i>"Water, Energy, and Ecosystems"</i> , University of California, Santa Barbara
2021	Bren MESM Project <i>"Estimating Habitat Connectivity to Guide Wildlife Conservation and Management Planning at The Nature Conservancy's Jack and Laura Dangermond Preserve"</i> , University of California, Santa Barbara
2020	Bren MESM Project <i>"Wild Pig Management at the Jack and Laura Dangermond Preserve"</i> , University of California, Santa Barbara
2019	Bren MESM Project: <i>"Green infrastructure for coral reef protection in Hawaii"</i> , University of California, Santa Barbara
2018	Bren MESM Project: <i>"Determining conservation research opportunities at the TNC Point Conception Dangermond Preserve"</i> , University of California, Santa Barbara
2017	Bren MESM Project: <i>"Exploring the Return on Investment Case for Natural Infrastructure Investment in the Upper Mississippi River Basin"</i> , University of California, Santa Barbara
2017	G167/ES167: <i>"Biogeography"</i> , University of California, Santa Barbara
2016	Freshman Seminar: <i>"Science, Society, and Dinner"</i> , with Chef Craig Shelton, Princeton University
2015	Summer Course on <i>"Isotope Hydrology Training"</i> , China Agricultural University
2015	Summer Course on <i>"Using UAVs for Environmental Monitoring"</i> , U. of Basilicata
2014	Summer Course on <i>"Modeling Spatial/Temporal Heterogeneity in Ecohydrological Systems"</i> , U. of Basilicata
2015 - 2016	EEB307/CEE307/ENV307, <i>"Water, Energy, and Ecosystems"</i> , Mpala Research Center, Princeton University
2013	CEE474/ENV474, <i>"Design and Implementation of Environmental Sensor Networks"</i>
2011	CEE474/ENV474, <i>"Design and Construction of Environmental Sensors"</i> , Princeton University
2009 - 2014	CEE 307, <i>"Field Ecohydrology"</i> , Mpala Research Center, Princeton University
2010 - 2016	ENV 201, <i>"Introduction to Environmental Studies"</i> , with Prof. David Wilcove, ENV Program, Princeton University
2008-2009	CEE 599, <i>"Environmental Biophysics"</i> , Princeton University
2008	CEE 599, <i>"Research Topics in Ecohydrology"</i> , Princeton University
2007	G307, <i>"Biogeography"</i> , Indiana University
2006	G440, <i>"Topics in Env. Geography: Ecological Systems and Simulation"</i> , Indiana University
2006	G440, <i>"Topics in Env. Geography: Ecohydrology"</i> , Indiana University
2006	G405/505, <i>"Hydroclimatology"</i> , Indiana University
2005 to 2007	G107, <i>"Physical Systems of the Environment"</i> , Indiana University

INVITED SEMINARS & PRESENTATIONS

2023	Invited Speaker	The interacting impacts of shifting rainfall climatology and crop choice in smallholder production systems, Biocomplexity Institute, University of Florida
2023	Keynote Speaker	Identifying and Mitigating Risk During Environmental Science Field Campaigns, Campus Safety, Health, and Environmental Management Association Annual Symposium, Santa Barbara, CA
2022	Invited Lecturer	Staff Training Program: Human-caused climate change and the ecology of Santa Barbara, Santa Barbara Museum of Natural History, Santa Barbara, CA

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2021	Keynote Speaker	A mile wide and a pixel deep: Integrating machine learning, computer vision, and satellite imagery for coupled-natural human system modeling, Helmholtz Institute conference on AI and ML in Earth & Environmental Science, Virtual
2019	Invited Speaker	Coupled natural-human dynamics in smallholder rain-fed agricultural systems, Department of Civil and Environmental Engineering, University of Florida
2019	Invited Speaker	The effects of climate variability on the structure and function of tropical vegetation, 44th New Phytologist Symposium, Accra, Ghana
2019	Keynote Speaker	The Jack and Laura Dangermond Preserve: A Perfect Place for Advancing Conservation Science, Board of Trustees Meeting, University of California, Santa Barbara
2019	Invited Speaker	Linkages between water, vegetation, and livelihoods in Sub-Saharan drylands, American Geophysical Union, San Francisco, CA
2018	Instructor	Coupled Natural-Human Systems Short Course, Ridge to Reef NRT Graduate Training Program, University of California, Irvine
2018	Invited Speaker	Session on "Vegetation dynamics and ecosystem resilience under global climate change", Ecological Society of America Annual Meeting, New Orleans, LA
2018	Invited Speaker	Workshop on Spatial Pattern Formation in Ecosystems, Princeton University, Center for Theoretical Science
2017	Invited Speaker	Session on "Hydrologic connectivity: linking land use changes and management to movement and transformations of resources within catchments", ALSO Aquatic Sciences Meeting, Honolulu, HI
2017	Seminar Speaker	Department of Plant Sciences Seminar, University of California, Riverside
2016	Invited Speaker	Water for Food Global Conference, "Catalytic Collaborations: Building Public- Private Partnerships for Water and Food Security," , Water for Food Institute, University of Nebraska
2015	Invited Lecturer	Summer Course on "Using UAVs for Environmental Monitoring", University of Basilicata, Matera, Italy
2015	Invited Participant	Conference on Water & Food Security Under Changing Environments, China Agricultural University
2015	Lead Instructor	Isotope Hydrology Training Course, Center for Agricultural and Water Research in China, China Agricultural University
2015	Invited Seminar	Chinese Academy of Agricultural Sciences, Beijing, China
2015	Invited Seminar	Earth Research Institute, University of California, Santa Barbara, CA
2015	Invited Seminar	Department of Civil and Environmental Engineering, University of Michigan, Ann Arbor, MI
2015	Invited Speaker	Session on "Estimation of Spatial and Temporal Variability of Land Surface Hydro- logical and Thermal Processes", AGU Fall Meeting, San Francisco, CA
2015	Invited Speaker	Session on "African Environments Across Space and Through Time: Integration Modern and Ancient Data for Insights into Terrestrial Ecosystem Dynamics", GSA Annual Meeting, Baltimore, MD
2015	Invited Seminar	Program in Ecology, Evolutionary Biology, and Behavior, Michigan State University
2015	Invited Seminar	National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD
2015	Invited Speaker	Class of 1968 "Princeton and the Environment Symposium", Princeton, NJ
2015	Invited Speaker	Symposium on "Advances in Earth Observation: Enabling New Insights into Global Environmental Change", AAAS Annual Meeting, San Jose, CA

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2014	Invited Lecturer	Summer Course on “Modeling Spatial/Temporal Heterogeneity in Ecohydrological Systems” , U. of Basilicata, Matera, Italy
2014	Keynote Speaker	WISENet IGERT Annual Meeting, Duke University, Durham, NC
2014	Invited Speaker	Workshop on “Improving Water Use Efficiency in Agriculture”, China Agricultural University, Beijing, China
2014	Invited Speaker	Arid Zone Hydrology Symposium, Texas A&M University
2014	Invited Speaker	Session on “Coupled Natural Human System Research Across Scales: From Emulators of Global Climate Model Output to Local-Scale Processes and Feedbacks”, AGU Fall Meeting, San Francisco, CA
2013	Invited Participant	2nd International Workshop on “Methods and Technologies for Environmental Monitoring and Modelling of Hydrologic and Hydraulic Risk”, Matera, Italy
2013	Invited Speaker	Symposium on Hydropedology, Soil Science Society of America Meeting, Tampa, FL
2012	Invited Seminar	Department of Environmental Science, Policy, and Management, University of California - Berkeley
2012	Invited Speaker	Session on “Catchment Similarity and Organisation”, EGU Annual Meeting, Vienna, Austria
2012	Invited Lecture	Stuart Country Day School, Princeton, NJ
2012	Invited Seminar	Science, Technology, Environment, and Policy Program, Woodrow Wilson School, Princeton University
2012	Invited Speaker	Session on “Dryland Ecohydrology: Critical Issues and Technical Advances”, AGU Fall Meeting, San Francisco, CA
2011	Invited Speaker	EcoHCC’11 International Conference on Ecohydrology and Climate Change, Tonar, Portugal
2011	Invited Lecturer	1st Summer School on Monitoring and Modeling Surface Hydrology, Marsico Nuovo, Italy
2011	Invited Speaker	Earthwatch Annual Board Meeting, Princeton, NJ
2011	Invited Seminar	Department of Civil and Environmental Engineering, University of Illinois, Urbana-Champaign
2011	Invited Panelist	New Jersey Symphony Orchestra Winter Concert, “Water: Global Challenge and Local Solutions in Developing Countries”, Princeton, NJ
2010	Invited Speaker	Department of Geological, Environmental, and Marine Sciences, Rider University
2009	Invited Speaker	IV CNR-Princeton Workshop “New frontiers in Hydrology”, Rome, Italy
2009	Invited Seminar	Department of Plant Sciences, Kenyatta University of Agriculture & Technology
2009	Invited Speaker	Session on “Landscapes in Semi-Arid and Arid Environments: A Hydrological and Ecological Perspective”, AGU Fall Meeting, San Francisco, CA
2009	Invited Speaker	Environmental Fluid Mechanics/Hydrology Seminar Series, MIT
2008	Invited Participant	International Ecohydrology/Ecophysiology Workshop, University of Western Australia, Perth, Australia
2008	Invited Presenter	Organized Oral Session, “Towards a synthetic theory of tree-grass coexistence in savannas”, 93rd Annual Ecological Society of America Meeting, Milwaukee, WI
2008	Invited Presenter	Session on “Ecosystem resilience to changing climate patterns: the role of hydrology”, AGU Fall Meeting, San Francisco, CA
2008	Invited Presenter	Symposium, “Seeing into the soil: Noninvasive characterization of biophysical processes in the soil critical zone”, ASA-CSSA-SSSA 2008 Joint Annual Meeting, Houston, TX

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2007	Invited Seminar	Department of Civil and Environmental Engineering, Princeton University
2007	Invited Speaker	Monroe County Drainage Board, Bloomington, IN
2006	Invited Speaker	Session on “Climate-soil-vegetation dynamics and their impacts on water balance and hydrological extremes” , European Geophysical Union Meeting, Vienna, Austria
2006	Invited Seminar	School of Public and Environmental Affairs, Indiana University
2006	Invited Speaker	Session on “Bridging Hydrology, Soil Science and Ecology”, AGU Fall Meeting, San Francisco, CA
2005	Invited Speaker	Session on “Integrated Approaches in Hydrological Process Studies”, AGU Spring Meeting, New Orleans, LA
2005	Invited Seminar	Department of Environmental Sciences, Rutgers University
2005	Invited Seminar	Colloquia Series, Department of Geography, Indiana University
2004	Invited Seminar	Forest Watershed Seminar Series, Department of Environmental Science, Policy, and Management, University of California - Berkeley
2004	Invited Seminar	Woods Hole Research Center, Woods Hole, MA
2003	Invited Participant	Savanna Complexity: Different perceptions, Common Ground, Luiperdskloof Game Lodge, South Africa
2002	Invited Presenter	Session on Ecohydrology, AGU Spring Meeting, Washington D.C.

SELECTED PROFESSIONAL SERVICE & MEMBERSHIP

2022 -	Associate Vice Chancellor	Office of Research, University of California, Santa Barbara
2020 -	Editor,	Earth's Future
2016 - 2022	Director,	Earth Research Institute, University of California, Santa Barbara
2020 -	Chair,	NCEAS Campus Advisory Committee, University of California, Santa Barbara
2020 -	Member,	Faculty Executive Committee, Bren School of Environmental Science & Management, University of California, Santa Barbara
2020 -	Member,	Offsite Research Committee, Office of Research, University of California, Santa Barbara
2020 -	Member,	Ellison Hall Building Committee, University of California, Santa Barbara
2019 -	Chair,	Space Committee, Department of Geography, University of California, Santa Barbara
2019 -	Member,	Space Committee, Office of Research, University of California, Santa Barbara
2019 -	Member,	Data Science Curriculum Committee, University of California, Santa Barbara
2018 -	Participating Faculty,	Interdepartmental PhD Emphasis in Environment and Society, University of California, Santa Barbara
2018 -	Member	Campus Data Science Initiative Working Group, University of California, Santa Barbara
2017 -	Member,	North Campus Open Space Administrative Advisory Group, University of California, Santa Barbara
2004 -	Member,	American Geophysical Union (AGU)
2019 - 2020	Member,	NCEAS Campus Advisory Committee, University of California, Santa Barbara
2019 - 2020	Member,	Group Project Committee, Bren School of Environmental Science and Management, University of California, Santa Barbara
2018	Co-Convenor,	AGU Fall Meeting, Session on “Indicators of Plant Water Availability and Stress in Drought-Prone Forests at a Range of Spatial and Temporal Scales”

PROFESSIONAL SERVICE & MEMBERSHIP – continued

2018 - 2020	Member,	Sustainable Water Markets (SWM) Fellowship Program Committee, Bren School of Environmental Science and Management, University of California, Santa Barbara
2018 - 2020	Member,	Sustainable Water Markets (SWM) Fellowship Program Committee, Bren School of Environmental Science and Management, University of California, Santa Barbara
2017 - 2018	Member,	Chair's Advisory Committee, Department of Geography, UCSB
2017	Co-Convenor,	AGU Fall Meeting, Session on <i>"Plant-Soil Interactions in the Rhizosphere: Experimental and Computational Advances"</i>
2017	Co-Convenor,	AGU Fall Meeting, Session on <i>"Advances in Ecohydrology of Water-Stressed Environments"</i>
2017	Member,	Academic Program Review Committee, School of Natural Resources and Environment, University of Arizona
2017	Co-Convenor	2017 International Association of Hydrological Sciences Conference, Session on <i>"Innovative ICT Tools for Water Management and Science"</i>
2017 - 2018	Chair,	Environmental Data Science & Informatics Search Committee, Earth Research Institute, UC Santa Barbara
2017 - 2019	Member,	Graduate Admission Committee, Department of Geography, University of California, Santa Barbara
2015 - 2016	Member,	Sustainability Steering Council, Princeton University
2015	Chair,	Graduate and Postdoctoral Experiences Strategic Planning Subcommittee, Princeton University
2015 - 2020	Member,	Editorial Board, Environmental Research Reviews, Environmental Research Letters
2015 - 2016	Member,	Task Force on Hydrology Section Technical Committees, American Geophysical Union
2014 - 2017	Member,	Hydrology Early Career Award Committee, American Geophysical Union
2014	Co-convenor,	AGU Fall Meeting, Session on <i>"The Influence of Changes in Farming Practices, Vegetation, and Land Use on Climate Adaptation, Mitigation, and Ecosystem and Socioeconomic Services"</i>
2014 - 2016	Director,	Environmental Studies Program, Princeton University
2014 - 2016	Director,	Graduate Studies, Department of Civil and Environmental Engineering, Princeton University
2014 - 2016	Board Member,	Princeton in Africa, Princeton NJ
2013 - 2016	Member,	Executive Committee, Program in Africa Studies, Princeton University
2010 - 2016	Member,	Executive Committee, Princeton Environmental Institute, Princeton University
2010 - 2016	Advisor,	Freshman Engineering, Princeton University
2009 - 2016	Member,	Executive Committee, Program in Environmental Studies, Princeton University
2013 - 2014	Member,	Fellows Task Force, American Geophysical Union
2010 - 2016	Associate Editor,	Water Resources Research
2013 - 2014	Member,	Horton Medal Award Committee, American Geophysical Union
2013	Invited Participant,	2nd Annual Neureiter Science Diplomacy Roundtable, Center for Science Diplomacy, AAAS
2013	Co-convenor,	AGU Fall Meeting, Session on <i>"Beyond changes in mean climate: the impacts of climate variabilities on terrestrial ecosystems"</i>
2013	Co-convenor,	AGU Fall Meeting, Session on <i>"Postmortem: 2012 Drought: Terrestrial Ecosystems"</i>
2012	Co-convenor,	AGU Fall Meeting, Session on <i>"Landscape System Response Under Change"</i>
2012	Member,	AGU Hydrology Section Nominating Committee

PROFESSIONAL SERVICE & MEMBERSHIP – continued

2012	Member,	External Review Board, Science Department, Stuart Country Day School, Princeton, NJ, April 2012
2012	Organizer,	Workshop on “ <i>Predictions Under Change: Vision for understanding and managing water, earth, and biota in the Anthropocene</i> ”, Boulder, CO, July 2012
2012 - 2013	Director,	Graduate Studies, Civil and Environmental Engineering, Princeton University
2012	Member,	AAAS Science Diplomacy Delegation to Uzbekistan, Tashkent, Uzbekistan, September, 2012
2012	Member,	AAAS Science Diplomacy Delegation to Myanmar, Nay Pi Taw, Myanmar, January 2012
2011	Co-convenor,	AGU Fall Meeting, Session on “ <i>Predictive Understanding of Coupled Interactions Among Water, Life, and Landforms</i> ”
2011	Co-convenor,	AGU Fall Meeting, Session on “ <i>Water and Energy Footprints in the Anthropocene</i> ”
2011	Co-convenor,	AGU Fall Meeting, Session on “ <i>Landscape System Response Under Change</i> ”
2011	Co-convenor,	AGU Fall Meeting, Session on “ <i>Laser-Based Isotope Techniques in Biogeosciences</i> ”
2011	Co-convenor,	AGU 2011 Fall Meeting, Session on “ <i>Stable Isotope Fluxes in the Carbon and Water Cycles of Terrestrial Ecosystems</i> ”
2011 - 2013	Associate Editor,	Vadose Zone Journal
2011 - 2013	Advisor,	Undergraduate Environmental Engineering Track, CEE, Princeton University
2010 - 2012	Advisor,	Freshman, School of Engineering and Applied Science, Princeton University
2010 - 2012	Chair,	Ecohydrological Technical Subcommittee, Hydrology Section, AGU
2009 - 2012	Associate Editor,	Journal of Geophysical Research - Biogeosciences
2009	Member,	Program Committee, AGU Chapman Conference on “ <i>Examining Ecohydrological Feedbacks of Landscape Change along Elevation Gradients in Semi-arid Regions</i> ”
2009	Panelist,	National Science Foundation
2008-2010	Member,	Ecohydrology Technical Subcommittee, American Geophysical Union
2008-2009	Interim Chair,	EEWR Graduate Program, CEE Department, Princeton University
2008-2009	Member,	SEAS Policy Committee, Princeton University
2008	Co-convenor,	AGU Fall Meeting, Session on “ <i>Hydrological Controls on Ecosystem Function</i> ”
2008	Moderator,	Princeton Colloquium on Public and International Affairs, “Eco-Friendly Development”
2007	Co-convenor,	AGU Spring Meeting, Session on “ <i>Dynamics and interaction of belowground carbon pools in dryland ecosystems</i> ”
2007	Member,	Environmental Sciences Steering Committee, Office of Vice Provost for Research, Indiana University
2006	Panelist,	NASA Carbon Cycle Program
2005	Co-convenor,	AGU Fall Meeting, Session on “ <i>Temporal and spatial variability in coupled ecological-hydrological processes</i> ”
2005	Co-convenor,	AGU Fall Meeting, Session on “ <i>Soil-water-nutrient interactions within savanna vegetation</i> ”
2005-2006	Member,	NASA Earth System Scholars Network (ESSN)
2004	Member,	NASA Earth System Scholars Network (ESSN) Technical Committee
2004	Co-chair,	NASA ESSN Symposium, Water and Energy Session

ENTREPRENEURSHIP

2018 - 2021	Advisor,	Princeton Climate Analytics, Princeton NJ
2015	Participant,	NSF I-Corps Entrepreneurship Program, NYC Cohort
2015	Investment,	Princeton Keller Center, Princeton Entrepreneurship Fund
2015	Award,	Princeton Keller Center, Innovation Forum
2015	Co-Founder,	Arable Labs, Inc. (www.arable.com)
2015-2017	Board Member,	Arable Labs, Inc. (www.arable.com)
2014	Founder,	Pulsepod Designs, Inc.

FUNDED RESEARCH**Total:** \$23,711,262

2023-2028	Department of Defense	The Climate-Food-Urbanization Nexus and the Precursors of Instability in Africa, Co-PI (\$3,073,150)
2023-2025	Department of Energy	Improving ESS approaches to evapotranspiration partitioning through data fusion, Co-PI (\$399,007)
2023-2023	National Science Foundation	NSF Convergence Accelerator Track J: Predicting the effect of climate extremes on the food system to improve resilience of global and local food security, Co-PI (\$748,674)
2022-2025	Zegar Foundation	Ecohydrological Resilience of Vegetation to Water Availability and Drought, PI (\$672,079)
2019-2023	National Science Foundation	CNH2-L: Linkages and Interactions Between Urban Food Security and Rural Agricultural Systems, Co-PI (\$1,600,000)
2019-2021	Zegar Foundation	Developing and Implementing Novel Tools for Assessing Riparian Ecosystem Resilience at the Dangermond Preserve, PI (\$321,583)
2018-2022	Department of Defense, SERDP	Strategic Environmental Research & Development: Understanding and Assessing Riparian Habitat Vulnerability to Drought-Prone Climate Regimes on Department of Defense Bases in the Southwestern US , Co-PI (\$1,704,236)
2018-2019	National Geographic Society	Global maps of center pivot agriculture for improving estimates of land use change and water use, PI (\$100,811)
2018-2018	The Nature Conservancy	Task 25: Dangermond Preserve Bren Summer Internships and Group Project, PI (\$17,000)
2018-2019	National Science Foundation	WSC-Category 2 Collaborative: Impacts of Agricultural Decision Making and Adaptive Management on Food Security, PI (\$628,779)
2018-2019	Omidyar Foundation	Developing and Scaling up the Mapping Africa Active Learning Platform, PI (\$79,838)
2017-2019	Clark University	Hazards SEES: Understanding Cross-Scale Interactions of Trade and Food Policy to Improve Resilience to Drought Risk, PI (\$103,249)
2017-2020	National Science Foundation	Collaborative Research: Impacts of Dynamic Climate-Driven Water Availability on Tree Water Use and Health in Mediterranean Riparian Forests , Co-PI (\$396,566)
2017-2020	National Science Foundation	CC*Networking Infrastructure: UCSB Network Upgrade to 100 Gigabit. , PI (\$481,730)

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2015-2019	National Science Foundation	Hazards SEES: Understanding Cross-Scale Interactions of Trade and Food Policy to Improve Resilience to Drought Risk, Co-PI (\$2,519,689)
2015-2015	National Science Foundation	I-Corps: Pulsepod: Bringing the Cloud Down to Earth, PI (\$50,000)
2014-2018	National Science Foundation	WSC-Category 2 Collaborative: Impacts of Agricultural Decision Making and Adaptive Management on Food Security, PI (\$1,929,565)
2013-2014	JPL	Adding precision to agricultural practice through simultaneous chlorophyll fluorescence and infrared observations, Co-PI (\$100,000)
2013-2014	JPL	Rapid forest triage by sub-canopy micro air vehicle, Co-PI (\$100,000)
2013-2015	Princeton University	Drought and the global carbon cycle, Co-PI (\$200,000)
2012-2016	National Science Foundation	Collaborative research: Quantifying the ecosystem-wide impacts of a strong interactor in African watersheds, PI (\$123,336)
2011-2014	NASA	Multiscale effects of fire on long-term climate and precipitation, Co-I (\$1,149,128)
2011-2016	National Science Foundation	CNH: Institutional Dynamics of Adaptation to Climate Change: Longitudinal Analysis of Snowmelt-Dependent Agricultural Systems, Co-PI (\$1,200,000)
2011-2014	Princeton University	A global collaborative network for coupling hydrological forecasts and food security in Sub-Saharan Africa and China , PI (\$225,000)
2010-2011	Princeton University	The Importance of Green Feedbacks on Biodiversity Conservation and Management of Savanna Ecosystems, PI (\$100,000)
2010-2015	National Science Foundation	ESE: Collaborative Research: Spatial Resilience of Agriculturalists to Coupled Ecological and Hydrological Variability in Rural Zambia, PI (\$350,000)
2009-2014	National Science Foundation	CAREER: An ecohydrological framework for understanding land degradation in dryland ecosystems, PI (\$1,543,738)
2009-2011	National Science Foundation	US - Kenya Doctoral Dissertation Enhancement Project: The Impact of Macropores on the Spatial and Temporal Patterns of Soil Moisture in Dryland Ecosystems of Central Kenya, PI (\$15,000)
2009-2009	Li-COR Biosciences	Using the LI-6400XT in the Princeton Semester in Kenya Program: From Undergraduate Education to International Impact, PI (\$45,000)
2008-2013	National Science Foundation	LTREB: KLEE- scaling up and out at the Kenya Long-term Exclosure Experiment, Co-PI (\$449,800)
2007-2010	National Science Foundation	Collaborative Proposal: Distribution and Dynamics of Belowground Carbon in Savannas, PI (\$208,344)
2007-2008	Indiana University	Quantifying organic and pharmaceutical contaminants within urbanizing streams in a central Indiana urbanizing watershed, PI (\$51,323)
2007-2010	National Science Foundation	HSD: Dynamics of Reforestation in Coupled Social-Ecological Systems: Modeling Land-Use Decision Making and Policy Impacts, Co-PI (\$755,115)

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2007-2008	Monroe County Drainage Board	Quantifying the impacts of development on physical and chemical hydrology of central Indiana streams , PI (\$96,000)
2006-2010	National Science Foundation	IRES: US-South Africa International Research Experience for Students – Impacts of Disturbance on Above- and Below-ground Structure of Southern African Savannas, Co-PI (\$623,522)
2005-2007	NASA	Sources, Transports, and Impacts of Southern African Aerosols: Synthetic Case Studies Using Terra & Aqua Satellite Products, Co-I (\$650,000)
2005-2007	NASA	Hydrologic & Nutrient Controls on the Structure and Function of Southern African Savannas: A Multi-Scale Approach, Co-I (\$900,000)

RESEARCH MANUSCRIPTS (141 TOTAL) (Google Scholar h-index: 53, Citations: 11,475)

▲ indicates current or former graduate advisee

◆ indicates current or former postdoctoral advisee

‡ indicates current or former undergraduate group member

• indicates current or former graduate committee member

* indicates current or former visiting scholar

2023

141. Giroux, S., Kaminski, P., Waldman, K., Blekking, J., Evans, T.P., **Caylor, K.K.** (2023) Smallholder social networks: Advice seeking and adaptation in rural Kenya. *Agricultural Systems*, 205(103574). doi:10.1016/j.agsy.2022.103574
140. •Warter, M., Singer, M.B., Cuthbert, M., Roberts, D.A., **Caylor, K.K.**, Sabathier, R., Stella, J. (2023) Modeling seasonal vegetation phenology from hydroclimatic drivers for contrasting plant functional groups within drylands of the Southwestern USA. *Environmental Research: Ecology*, . doi:10.1088/2752-664X/acb9a0
139. •Forbes, E., ‡Benenati, V., Frey, S., Hirsch, M., Koech, G., ‡Lewin, G., Mantas, J.N., **Caylor, K.K.** (2023) Fluxbots: A method for building, deploying, collecting and analyzing data from a network of inexpensive, autonomous soil carbon flux chambers. *Journal of Geophysical Research - Biogeosciences*, . doi:10.1029/2023JG007451
138. Cecil, M., Chilenga, A., Chisanga, C., Gatti, N., ▲Krell, N., Vergopalan, N., Baylis, K., **Caylor, K.K.**, Evans, T., Konar, M., Sheffiled, J., Estes, L. (2023) How much control do smallholder maize farmers have over yield?. *Field Crops Research*, . doi:10.1016/j.fcr.2023.109014
137. •Kibler, C., Trugman, A.T., Roberts, D.A., Still, C.J., Scott, R.L., **Caylor, K.K.**, Stella, J.C., Singer, M.B (2023) Evapotranspiration regulates leaf temperature and respiration in dryland vegetation. *Agricultural & Forest Meteorology*, . doi:10.1016/j.agrformet.2023.109560

2022

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CONFERENCE & WORKSHOP PRESENTATIONS

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