

BIO-BIBLIOGRAPHY

University of California, Santa Barbara

June 30, 2018

Kelly K. Caylor  
Professor II  
Department of Geography  
Bren School of Environmental Science & Management  
Director of Earth Research Institute

This update refers to the period since appointment to June 30, 2018

## Curriculum Vitae

### Education

University of Virginia, Ph.D., Environmental Sciences, 2003

University of Virginia, B.A., with High Distinction, Environmental Sciences, 1996

### Area of Specialization

Ecohydrology, Isotope hydrology, Coupled natural-human systems, Environmental sensing.

### Previous Academic or Professional Appointments

2005 - 2007	Assistant Professor, Department of Geography, Indiana University
2007 -	Adjunct Faculty, Department of Geography, Indiana University
2007 - 2012	Assistant Professor, Dept. of Civil and Environmental Engineering, Princeton University
2013 - 2016	Affiliated Faculty, Dept. of Ecology and Evolutionary Biology, Princeton University
2013 - 2016	Associate Professor, Dept. of Civil and Environmental Engineering, Princeton University
2014 - 2016	Director, Environmental Studies Program, Princeton University
2016 -	Full Professor, Dept. of Geography, University of California, Santa Barbara
2016 -	Full Professor, Bren School of Environmental Science & Management, UCSB

### Professional Organizations

American Geophysical Union, Association of American Geographers, American Association for the Advancement of Science

**PART I. RESEARCH****Cumulative List of Publications (or Creative Activities):**

#	Year	Title and Authors	Publisher	Category
1.0	2000	<b>Approaches for the estimation of primary productivity and vegetation structure in the Kalahari region</b> , Dowty, P.R., Caylor, K.K., Shugart, H.H., Emanuel, W.R.	Ringrose, S., Chanda, R. (eds.). <i>Towards Sustainable Natural Resource Management in the Kalahari Region.</i> . University of Botswana Press	Refereed Book Chapter
2.0	2002	<b>The southern African Regional Science Initiative (SAFARI 2000): Wet season campaigns</b> , Otter, LB, Scholes, RJ, Dowty, PR, Privette, JP, Caylor, K.K., Ringrose, S, Mukelabai, M, Frost, P, Hanan, N, Totolo, O, Veenendall, EM. [pdf]	<i>South African Journal of Science</i> 98(3-4): 131-137.	Refereed Article
3.0	2002	<b>Determining land surface fractional cover from NDVI and rainfall time series for a savanna ecosystem</b> , Scanlon, TM, Albertson, JD, Caylor, K.K., Williams, CA. [pdf]	<i>Remote Sensing of Environment</i> 82(2-3): 376-388. doi:10.1016/s0034-4257(02)00054-8.	Refereed Article
4.0	2002	<b>Trends in savanna structure and composition on an aridity gradient in the Kalahari</b> , Scholes, RJ, Dowty, PR, Caylor, K.K., Parsons, DAB, Frost, PGH, Shugart, HH. [pdf]	<i>Journal of Vegetation Science</i> 13(3): 419-428. doi:10.1111/j.1654-1103.2002.tb02066.x.	Refereed Article
5.0	2003	<b>Tree spacing along the Kalahari transect in southern Africa</b> , Caylor, K.K., Shugart, HH, Dowty, PR, Smith, TM. [pdf]	<i>Journal of Arid Environments</i> 54(2): 281-296. doi:10.1006/jare.2002.1090.	Refereed Article
6.0	2003	<b>Release of gaseous and particulate carbonaceous compounds from biomass burning during the SAFARI 2000 dry season field campaign</b> , Hely, C, Caylor, K.K., Alleaume, S, Swap, RJ, Shugart, HH. [pdf]	<i>Journal of Geophysical Research - Atmospheres</i> 108(13). doi:10.1029/2002jd002482.	Refereed Article
7.0	2003	<b>Regional fuel load for two climatically contrasting years in southern Africa</b> , Hely, C, Dowty, PR, Alleaume, S, Caylor, K.K., Korontzi, S, Swap, RJ, Shugart, HH, Justice, CO. [pdf]	<i>Journal of Geophysical Research - Atmospheres</i> 108(13). doi:10.1029/2002jd002341.	Refereed Article
8.0	2003	<b>Soil moisture and plant stress dynamics along the Kalahari precipitation gradient</b> , Porporato, A, Laio, F, Ridolfi, L, Caylor, K.K., Rodriguez-Iturbe, I. [pdf]	<i>Journal of Geophysical Research - Atmospheres</i> 108(D3). doi:10.1029/2002jd002448.	Refereed Article
9.0	2004	<b>Coupling ecohydrological patterns and processes in semi-arid landscapes</b> , Caylor, K.K., Rodriguez-Iturbe, I	<i>Proceedings of the British Hydrological Society's International Conference on Hydrology: Science &amp; Practice for the 21st Century</i> . British Hydrological Society	Refereed Conference Proceedings
10.0	2004	<b>Simulated productivity of heterogeneous patches in Southern African savanna landscapes using a canopy productivity model</b> , Caylor, K.K., Shugart, HH. [pdf]	<i>Landscape Ecology</i> 19(4): 401-415. doi:10.1023/B:LAND.0000030450.11302.c2.	Refereed Article

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11.0	2004	<b>Feasible optimality of vegetation patterns in river basins</b> , Caylor, K.K., Scanlon, TM, Rodriguez-Iturbe, I. [pdf]	<i>Geophysical Research Letters</i> 31(13). doi:10.1029/2004GL020260.	Refereed Article
12.0	2004	<b>Relationship between small-scale structural variability and simulated vegetation productivity across a regional moisture gradient in southern Africa</b> , Caylor, K.K., Dowty, PR, Shugart, HH, Ringrose, S. [pdf]	<i>Global Change Biology</i> 10(3): 374-382. doi:10.1111/j.1365-2486.2003.00704.x.	Refereed Article
13.0	2004	<b>Vegetation structure characteristics and relationships of Kalahari woodlands and savannas</b> , Privette, JP, Tian, Y, Roberts, G, Scholes, RJ, Wang, Y, Caylor, K.K., Mukelabai, M. [pdf]	<i>Global Change Biology</i> 10(3): 281-291. doi:10.1111/j.1365-2486.2004.00740.x.	Refereed Article
14.0	2004	<b>A simulation analysis of the detectability of understory burns in miombo woodlands</b> , Pereira, JMC, Mota, B, Privette, JL, Caylor, K.K., Silva, JMN, Sa, ACL, Ni-Meister, W. [pdf]	<i>Remote Sensing of Environment</i> 93(3): 296-310. doi:10.1016/j.rse.2004.01.009.	Refereed Article
15.0	2005	<b>Tree canopy effects on simulated water stress in southern African savannas</b> , Caylor, K.K., Shugart, HH, Rodriguez-Iturbe, I. [pdf]	<i>Ecosystems</i> 8(1): 106-121. doi:10.1007/s10021-004-0027-9.	Refereed Article
16.0	2005	<b>On the coupled geomorphological and ecohydrological organization of river basins</b> , Caylor, K.K., Manfreda, S., Rodriguez-Iturbe, I. [pdf]	<i>Advances in Water Resources</i> 28(1): 69-86. doi:10.1016/j.advwatres.2004.08.013.	Refereed Article
17.0	2005	<b>Dynamic response of grass cover to rainfall variability: Implications for the function and persistence of savanna ecosystems</b> , Scanlon, TM, Caylor, K.K., Manfreda, Salvatore, Levin, Simon, Rodriguez-Iturbe, I. [pdf]	<i>Advances in Water Resources</i> 28(3): 291-302. doi:10.1016/j.advwatres.2004.10.014.	Refereed Article
18.0	2005	<b>Determinants of woody cover in African savannas: A continental scale analysis</b> , Sankaran, M, Hanan, N, Scholes, B, Ratnam, Jayashree, 24 others, Caylor, K.K.. [pdf]	<i>Nature</i> 438(7069): 846. doi:10.1038/nature04070.	Refereed Article
19.0	2006	<b>Dynamic change in the woodland and savanna ecosystems of sub-tropical Africa.</b> , Shugart, H.H, Caylor, K.K., Hely, C., Swap, R.J., Dowty, P.R.	Laurence, W., Peres, C. (eds.). <i>Emerging Threats to Tropical Forests</i> . University of Chicago Press	Refereed Book Chapter
20.0	2006	<b>Pattern and process in savanna ecosystems</b> , Caylor, K.K, Shugart, H.H.	D'Odorico, P., Porporato, A. (eds.). <i>Dryland Ecohydrology</i> . Springer	Refereed Book Chapter
21.0	2006	<b>On the ecohydrology of structurally heterogeneous semi-arid landscapes</b> , Caylor, K.K., D'Odorico, P, Rodriguez-Iturbe, I. [pdf]	<i>Water Resources Research</i> 42(7). doi:10.1029/2005WR004683.	Refereed Article
22.0	2007	<b>Ecohydrological optimization of patterns and processes in water-limited ecosystems.</b> , Caylor, K.K., Scanlon, T.M., Rodriguez-Iturbe, I.	<i>Water and the Environment: Proceedings of the Workshop in the Vatican Academy of Sciences</i> . Vatican Academy of Sciences	Refereed Conference Proceedings

#	Year	Title and Authors	Publisher	Category
23.0	2007	<b>A temporal and spatially explicit Production Efficiency Model for fuel load allocation in southern Africa</b> , Hely, C, Caylor, K.K., Dowty, PR, Alleaume, S, Swap, RJ, Shugart, HH, Justice, CO. [pdf]	<i>Ecosystems</i> 10(7): 1116. doi:10.1007/s10021-007-9082-3.	Refereed Article
24.0	2007	<b>Spatial variation in vegetation structure coupled to plant available water at landscape scales in a Brazilian savanna</b> , Ferira, J., Bustamente, M, Garcia-Montiel, DC, Caylor, K.K., Davidson, EA. [pdf]	<i>Oecologia</i> 153(2): 417-430. doi:10.1007/s00442-007-0747-6.	Refereed Article
25.0	2007	<b>When is breeding for drought tolerance optimal when drought is random?</b> , Sambatti, J, Caylor, K.K.. [pdf]	<i>New Phytologist</i> 175(1): 70-80. doi:10.1111/j.1469-8137.2007.02067.x.	Refereed Article
26.0	2007	<b>On soil moisture–vegetation feedbacks and their possible effects on the dynamics of dryland ecosystems</b> , D’Odorico, P, Caylor, K.K., Okin, GS, Scanlon, TM. [pdf]	<i>Journal of Geophysical Research - Biogeosciences</i> 112(G4). doi:10.1029/2006jg000379.	Refereed Article
27.0	2007	<b>Positive feedbacks promote power-law clustering of Kalahari vegetation</b> , Scanlon, TM, Caylor, K.K., Levin, Simon, Rodriguez-Iturbe, I. [pdf]	<i>Nature</i> 449(7159): 209. doi:10.1038/nature06060.	Refereed Article
28.0	2008	<b>Spatial patterns of soil nutrients in two southern African savannas</b> , Okin, GS, Mladenov, N, Wang, L, Cassel, D, Caylor, K.K., Ringrose, S. [pdf]	<i>JGR - Biogeosciences</i> 113(G2). doi:10.1029/2007JG000584.	Refereed Article
29.0	2009	<b>Decoupling structural and environmental determinants of sap velocity</b> , Dragoni, D., Caylor, K.K.	<i>Proceedings of the 7th International Workshop on Sap Flow, Seville, Spain . Acta Horticulture</i>	Refereed Conference Proceedings
30.0	2009	<b>On the calibration of continuous, high-precision <math>\delta^{18}\text{O}</math> and <math>\delta^2\text{H}</math> measurements using an off-axis integrated cavity output spectrometer</b> , Wang, L, Caylor, K.K., Dragoni, D.. [pdf]	<i>Rapid Communications in Mass Spectrometry</i> 23(4): 530-536. doi:10.1002/rcm.3905.	Refereed Article
31.0	2009	<b>Ecohydrological optimization of pattern and process in dryland ecosystems: A tradeoff-based hypothesis</b> , Caylor, K.K., Scanlon, TM, Rodriguez-Iturbe, I. [pdf]	<i>Water Resources Research</i> 45(8). doi:10.1029/2008WR007230.	Refereed Article
32.0	2009	<b>Decoupling structural and environmental determinants of sap velocity: Part II, Observational application</b> , Dragoni, D, Caylor, K.K., Schmid, H. [pdf]	<i>Agriculture &amp; Forest Meteorology</i> 149(3-4): 570-581. doi:10.1016/j.agrformet.2008.10.006.	Refereed Article
33.0	2009	<b>Decoupling structural and environmental determinants of sap velocity: Part I, Methodological development</b> , Caylor, K.K., Dragoni, D.. [pdf]	<i>Agriculture &amp; Forest Meteorology</i> 149(3-4): 559-569. doi:10.1016/j.agrformet.2008.10.010.	Refereed Article
34.0	2009	<b>Spatial heterogeneity and sources of soil carbon in Southern African savannas</b> , Wang, L, Okin, G., Caylor, K.K., Macko, S. [pdf]	<i>Geoderma</i> 149(3-4): 402-408.	Refereed Article

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35.0	2010	<b>Combined effect of soil moisture and nitrogen availability variations on grass productivity in African savannas</b> , Wang, L, D'Odorico, P, Ries, L., Caylor, K.K., Macko, S. [pdf]	<i>Plant &amp; Soil</i> 328(1-2): 95-108. doi:10.1007/s11104-009-0085-z.	Refereed Article
36.0	2010	<b>Nutrient limitation on above-ground grass production in four savanna types along the Kalahari Transect</b> , Ries-O'Halloran, L, Shugart, HH, Wang, L, Caylor, K.K., Ringrose, S. [pdf]	<i>Journal of Arid Environments</i> 74(2): 284-290. doi:10.1016/j.jaridenv.2009.08.012.	Refereed Article
37.0	2010	<b>An ecohydrological approach to predict regional species distribution patterns in dryland ecosystems</b> , Franz, T., Caylor, K.K., Rodriguez-Iturbe, I., Celia, M., Norbotten, J. [pdf]	<i>Advances in Water Resources</i> 33(2): 215-230. doi:10.1016/j.advwatres.2009.12.003.	Refereed Article
38.0	2010	<b>On the importance of accurate depiction of infiltration processes on model soil moisture and vegetation water stress</b> , Manfreda, S., Scanlon, TM, Caylor, K.K.. [pdf]	<i>Ecohydrology</i> 3(2): 155-165. doi:10.1002/eco.79.	Refereed Article
39.0	2010	<b>Partitioning evapotranspiration across gradients of woody plant cover: assessment of a stable isotope technique</b> , Wang, L, Caylor, K.K., Villegas, J.C., Barron-Gafford, G, Breshears, DD, Huxman, T. [pdf]	<i>Geophysical Research Letters</i> 37(9). doi:10.1029/2010GL043228.	Refereed Article
40.0	2010	<b>Herbivores and mutualistic ants interact to regulate tree photosynthesis</b> , King, E.G., Caylor, K.K.. [pdf]	<i>New Phytologist</i> 187(1): 17-21. doi:10.1111/j.1469-8137.2010.03286.x.	Refereed Article
41.0	2011	<b>Quantifying Transient Soil Moisture Dynamics Using Multipoint Direct-Current Resistivity in Homogeneous Sand</b> , Franz, T., Nolan, J, Nordbotten, J, Caylor, K.K., Slater, L.. [pdf]	<i>Vadose Zone Journal</i> 10(1): 286-298. doi:10.2136/vzj2010.0031.	Refereed Article
42.0	2011	<b>Climatological determinants of woody cover in Africa</b> , Good, S.P., Caylor, K.K.. [pdf]	<i>Proceedings of the National Academy of Sciences</i> 108(12): 4902-4907. doi:10.1073/pnas.1013100108.	Refereed Article
43.0	2011	<b>Coupling vegetation organization patterns to soil resource heterogeneity in a central Kenyan dryland using geophysical imagery</b> , Franz, T., King, E.G., Caylor, K.K., Robinson, DA. [pdf]	<i>Water Resources Research</i> 47(7). doi:10.1029/2010WR010127.	Refereed Article
44.0	2011	<b>Metabolic principles of river basin organization</b> , Rodriguez-Iturbe, I, Caylor, K.K., Rinaldo, A.. [pdf]	<i>Proceedings of the National Academy of Sciences</i> 108(29): 11751-11755. doi:10.1073/pnas.1107561108.	Refereed Article
45.0	2011	<b>Ecohydrology in Practice: Strengths, Conveniences, and Opportunities</b> , King, E.G., Caylor, K.K.. [pdf]	<i>Ecohydrology</i> 4(4): 608-612. doi:10.1002/eco.248.	Refereed Article

#	Year	Title and Authors	Publisher	Category
46.0	2012	<b>An ecohydrological approach to predicting hillslope-scale vegetation patterns in dryland ecosystems</b> , Franz, T., Caylor, K.K., King, E.G., Nordbotten, J, Celia, MA, Rodriguez-Iturbe, I. [pdf]	<i>Water Resources Research</i> 48(1). doi:10.1029/2011WR010524.	Refereed Article
47.0	2012	<b>Multi-sensor derivation of regional vegetation fractional cover in Africa</b> , Guan, K., Wood, E.F., Caylor, K.K.. [pdf]	<i>Remote Sensing of Environment</i> 124: 653-665. doi:10.1016/j.rse.2012.06.005.	Refereed Article
48.0	2012	<b>Characterizing ecohydrological and biogeochemical connectivity across multiple scales: a new conceptual framework</b> , Wang, L., Zou, Chris, O'Donnell, F., Good, S., Franz, T., Miller, G.R., Caylor, K.K.. [pdf]	<i>Ecohydrology</i> 5(2): 221-233. doi:10.1002/eco.1187.	Refereed Article
49.0	2012	<b>Ecohydrological interactions in a two-phase mosaic dryland: implications for regime shifts, resilience, and restoration</b> , King, E.G., Franz, T., Caylor, K.K.. [pdf]	<i>Ecohydrology</i> 5(6): 733-745. doi:10.1002/eco.260.	Refereed Article
50.0	2012	<b>Direct quantification of leaf transpiration isotopic composition</b> , Wang, L, Good, S.P., Caylor, K.K.. [pdf]	<i>Agriculture &amp; Forest Meteorology</i> 154: 127-135. doi:10.1016/j.agrformet.2011.10.018.	Refereed Article
51.0	2012	<b>A model-based evaluation of woody plant encroachment impacts on coupled carbon and water cycles</b> , O'Donnell, Caylor, K.K.. [pdf]	<i>Journal of Geophysical Research - Biogeosciences</i> 117(G2). doi:10.1029/2011JG001899.	Refereed Article
52.0	2012	<b>Understanding the role of ecohydrological feedbacks in ecosystem-state change in drylands</b> , Turnbull, L, Wilcox, B.P., Belnap, J, Ravi, S, others, Caylor, K.K.. [pdf]	<i>Ecohydrology</i> 5(2): 174-183. doi:10.1002/eco.265.	Refereed Article
53.0	2012	<b>Evaluating ecohydrological theories of woody root distribution in the Kalahari</b> , Bhattachan, A. , Dintwe, K., Tathlego, M., O'Donnell, F., Caylor, K.K., et al.. [pdf]	<i>PLoS One</i> 7(3): e33996. doi:10.1371/journal.pone.0033996.	Refereed Article
54.0	2012	<b>Uncertainties in the assessment of the isotopic composition of surface fluxes: A direct comparison of techniques using laser-based water vapor isotope analyzers</b> , Good, S.P., Soderberg, K., Wang, L, Caylor, K.K.. [pdf]	<i>Journal of Geophysical Research - Atmospheres</i> 117(D5). doi:10.1029/2011JD017168.	Refereed Article
55.0	2012	<b>Reframing hydrology education to solve coupled human and environmental problems</b> , King, E.G., O'Donnell, F., Caylor, K.K.. [pdf]	<i>Hydrology and Earth System Science</i> 16(8): 2293-2404. doi:10.5194/hess-16-4023-2012.	Refereed Article
56.0	2012	<b>Stable isotopes of water vapor in the vadose zone: A review of measurement and modeling techniques</b> , Soderberg, K., Good, S.P., Wang, L, Caylor, K.K.. [pdf]	<i>Vadose Zone Journal</i> 11(3). doi:10.2136/vzj2011.0165.	Refereed Article
57.0	2012	<b>Dryland ecohydrology and climate change: critical issues and technical advances</b> , Wang, L, D'Odorico, P, Evans, J, Eldridge, T., McCabe, M, Caylor, K.K.. [pdf]	<i>Hydrology and Earth System Science</i> 16(8): 2585-2603. doi:10.5194/hess-16-2585-2012.	Refereed Article

#	Year	Title and Authors	Publisher	Category
58.0	2013	<b>Seasonal coupling of canopy structure and function in African tropical forests and its environmental controls</b> , Guan, K., Wolf, A, Medvigy, David, Caylor, K.K., Pan, Ming, Wood, E.F.. [pdf]	<i>Ecosphere</i> 4(3): 1-21. doi:10.1890/ES12-00232.1.	Refereed Article
59.0	2013	<b>Using atmospheric trajectories to model the isotopic composition of rainfall in central Kenya</b> , Soderberg, K., Good, S.P., O'Connor, M, Wang, L, Ryan, K, Caylor, K.K.. [pdf]	<i>Ecosphere</i> 4(3): 1-18. doi:10.1890/ES12-00160.1.	Refereed Article
60.0	2013	<b>Ecosystem-scale spatial heterogeneity of stable isotopes of soil nitrogen in African savannas</b> , Wang, L., Okin, GS, D'Odorico, P, Caylor, K.K., Macko, S. [pdf]	<i>Landscape Ecology</i> 28(4): 685-698. doi:10.1007/s10980-012-9776-6.	Refereed Article
61.0	2013	<b>The effect of warming on grassland evapotranspiration partition using laser-based isotope monitoring techniques</b> , Wang, L, Nui, S., Good, S.P., Soderberg, K, others, Caylor, K.K.. [pdf]	<i>Geochimica et Cosmochimica Acta</i> 111: 28-38. doi:10.1016/j.gca.2012.12.047.	Refereed Article
62.0	2013	<b>Analytical expressions of variability in ecosystem structure and function obtained from three-dimensional stochastic vegetation modelling</b> , Good, S.P., Rodriguez-Iturbe, I, Caylor, K.K.. [pdf]	<i>Proceedings of the Royal Society, Series A</i> 469(2155): 20130003. doi:10.1098/rspa.2013.0003.	Refereed Article
63.0	2013	<b>Virtual water trade and development in Africa</b> , Konar, M, Caylor, K.K.. [pdf]	<i>Hydrology and Earth System Science</i> 17(10): 3969-3982. doi:10.5194/hess-17-3969-2013.	Refereed Article
64.0	2013	<b>On The Vulnerability of Water Limited Ecosystems to Climate Change</b> , Manfreda, S., Caylor, K.K.. [pdf]	<i>Water</i> 5(2): 819-833. doi:10.3390/w5020819.	Refereed Article
65.0	2014	<b>Multilevel governance of irrigation systems and adaptation to climate change in Kenya</b> , Dell'Angelo, J, McCord, P.F., Baldwin, E., Cox, M.E., Gower, D., Caylor, K.K., Evans, T.P.	Bhaduri, A., Bogardi, J., Leentvaar, J., Marx, S. (eds.). <i>The Global Water System in the Anthropocene</i> . Springer International	Refereed Book Chapter
66.0	2014	<b>Integrating short- and long-range processes into models: The emergence of pattern</b> , Caylor, K.K, Okin, G.S., Turnbull, L., Wainwright, J., Wiegand, T., Franz, T.E., Parsons, A.J.	Mueller, E.N., Wainwright, J., Parsons, A.J., Turnbull, L. (eds.). <i>Patterns of Land Degradation in Drylands</i> . Springer International	Refereed Book Chapter
67.0	2014	<b>An analysis of structure: biomass structure relationships for characteristic species of the western Kalahari, Botswana</b> , Meyer, T, D'Odorico, P, Okin, GS, Shugart, HH, Caylor, K.K., O'Donnell FC. [pdf]	<i>African Journal of Ecology</i> 52(1): 20-29. doi:10.1111/aje.12086.	Refereed Article
68.0	2014	<b><math>\delta^{2}\text{H}</math> Isotopic flux partitioning of evapotranspiration over a grass field following a water pulse and subsequent dry down</b> , Good, S.P., Soderberg, K., Guan K., King, E.G., Scanlon, TM, Caylor, K.K.. [pdf]	<i>Water Resources Research</i> 50(2): 1410-1432. doi:10.1002/2013WR014333.	Refereed Article

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69.0	2014	<b>Modelling vegetation patterns in semiarid environments</b> , Manfreda, S., Pizzolla, T., Caylor, K.K..	<i>Procedia Environmental Sciences</i> 19: 168-177. doi:10.1016/j.proenv.2013.06.019.	Refereed Article
70.0	2014	<b>Deriving vegetation phenological time and trajectory information over Africa using SEVIRI daily LAI</b> , Guan, K., Medvigy, D., Wood, E.F., Caylor, K.K., Li, S., Jeong, S.. [pdf]	<i>IEEE Transactions on Geoscience and Remote Sensing</i> 52(2): 1113-1130. doi:10.1109/TGRS.2013.2247611.	Refereed Article
71.0	2014	<b>Continental-scale impacts of intra-seasonal rainfall variability on simulated ecosystem responses in Africa</b> , Guan, K., Good, S.P., Caylor, K.K., Sato, Hisashui, Li, Haibin, Wood, E.F.. [pdf]	<i>Biogeosciences</i> 11(23): 6939-6954. doi:10.5194/bg-11-6939-2014.	Refereed Article
72.0	2014	<b>Changing water availability during the African maize-growing season, 1979-2010</b> , Estes, L, Chaney, N., Herrera-Estrada, J., Sheffield, J, Caylor, K.K., Wood, E.F.. [pdf]	<i>Environmental Research Letters</i> 9(7): 75005. doi:10.1088/1748-9326/9/7/075005.	Refereed Article
73.0	2014	<b>Global synthesis of vegetation control on evapotranspiration partitioning</b> , Wang, L., Good, S.P., Caylor, K.K., ‘. [pdf]	<i>Geophysical Research Letters</i> 41(19): 6753-6757. doi:10.1002/2014GL061439.	Refereed Article
74.0	2014	<b>Terrestrial hydrological controls on land surface phenology of African savannas and woodlands</b> , Guan, K., Wood, E.F, Medvigy, D., Wolf, A., Kimball, J., Pan, M., Caylor, K.K., Sheffield, J. [pdf]	<i>Journal of Geophysical Research - Biogeosciences</i> 119(8): 1652-1669. doi:10.1002/2013JG002572.	Refereed Article
75.0	2015	<b>Photosynthetic seasonality of global tropical forests constrained by hydroclimate</b> , Guan, K., Pan, M., Li, H., Wolf, A, Medvigy, D, Caylor, K.K., Sheffield, J, Wood, EF, Mahli, Y, Liang, M., others. [pdf]	<i>Nature Geoscience</i> 8(4): 284. doi:10.1038/ngeo2382.	Refereed Article
76.0	2015	<b>Termite mounds can increase the robustness of dryland ecosystems to climatic change</b> , Bonachela, J.A., Pringle, RM, Shefer, E, Coverdale, TC, Guyon, JA, Caylor, K.K., Levin, SA, Tarnita, CE. [pdf]	<i>Science</i> 347 6222): 651-655. doi:10.1126/science.1261487.	Refereed Article
77.0	2015	<b>Carbon stable isotopes suggest that hippopotamus-vectored nutrients subsidize aquatic consumers in an East African river</b> , McCauley, D.J., Dawson, T, Power, ME, Finlay, JC, Ogada, M, Gower, D., Caylor, K.K.. [pdf]	<i>Ecosphere</i> 6(4): 1-11. doi:10.1890/ES14-00514.1.	Refereed Article
78.0	2015	<b>A quantitative description of the inter-species diversity of belowground structure in savanna woody plants</b> , O'Donnell, F., Caylor, K.K., Bhattachan, A, Dintwe, Kebonye, D'Odorico, P, Okin, G. [pdf]	<i>Ecosphere</i> 6(9): 1-15. doi:10.1890/ES14-00310.1.	Refereed Article
79.0	2015	<b>Dynamic interactions of ecohydrological and biogeochemical processes in water-limited systems</b> , Wang, L., Manzoni, S., Ravi, S., Riveros-Iregui, D., Caylor, K.K.. [pdf]	<i>Ecosphere</i> 6(8): 1-27. doi:10.1890/ES15-00122.1.	Refereed Article



#	Year	Title and Authors	Publisher	Category
80.0	2015	<b>Warmer and wetter soil stimulates assimilation more than respiration in rainfed agricultural ecosystem on the China Loess Plateau: the role of partially plastic film mulching tillage</b> , Gong, D., Hao, W., Mei, X., Gao, X., Caylor, K.K.. [pdf]	<i>PLoS One</i> 10(8): e0136578. doi:10.1371/journal.pone.0136578.	Refereed Article
81.0	2015	<b>Soil organic C and total N pools in the Kalahari: potential impacts of climate change on C sequestration in savannas</b> , Dintwe, K., Okin, GS, D'Odorico, P, Hrast, T, Mladenov, N., Handorean, A., Bhattachan, A., Caylor, K.K.. [pdf]	<i>Plant &amp; Soil</i> 396(1-2): 27-44. doi:10.1007/s11104-014-2292-5.	Refereed Article
82.0	2016	<b>Global Patterns of the Contributions of Storm Frequency, Intensity, and Seasonality to Interannual Variability of Precipitation</b> , Good, S.P., Guan, K., Caylor, K.K.. [pdf]	<i>Journal of Climate</i> 29(1): 3-15. doi:10.1175/JCLI-D-14-00653.1.	Refereed Article
83.0	2016	<b>Improved removal of volatile organic compounds for laser-based spectroscopy of water isotopes.</b> , Chang, E., Wolf, A., Gerlein-Safdi, C., Caylor, K.K.. [pdf]	<i>Rapid Communications in Mass Spectrometry</i> 30(6): 784-790. doi:doi.org/10.1002/rcm.7497.	Refereed Article
84.0	2016	<b>Community Water Governance on Mount Kenya: An Assessment Based on Ostrom's Design Principles of Natural Resource Management</b> , Dell'Angelo, J, McCord, P, Gower, D., Carpenter, S., Caylor, K., Evans, T.P.. [pdf]	<i>Mountain Research &amp; Development</i> 36(1): 102-115. doi:10.1659/MRD-JOURNAL-D-15-00040.1.	Refereed Article
85.0	2016	<b>A platform for crowdsourcing the creation of representative, accurate landcover maps</b> , Estes, L, McRitchie, D., Choi, J., Debats, S., Evans, T., Guthe, W., Luo, D., Ragazzo, G., Zempleni, R., Caylor, K.K.. [pdf]	<i>Environmental Modelling &amp; Software</i> 80: 41-53. doi:10.1016/j.envsoft.2016.01.011.	Refereed Article
86.0	2016	<b>A generalized computer vision approach to mapping crop fields in heterogeneous agricultural landscapes</b> , Debats, S., Luo, D., Estes, L.D., Fuchs, T., Caylor, K.K.. [pdf]	<i>Remote Sensing of Environment</i> 179: 210-221. doi:10.1016/j.rse.2016.03.010.	Refereed Article
87.0	2016	<b>Explaining inter-annual variability of gross primary productivity from plant phenology and physiology</b> , Zhou, S, Zhang, Y., Caylor, K.K., Luo, Y., Xiao, X., Ciais, P., Huang, Y., Wang, G.. [pdf]	<i>Agricultural &amp; Forest Meteorology</i> 226: 246-256. doi:10.1016/j.agrformet.2016.06.010.	Refereed Article
88.0	2016	<b>Reconciling agriculture, carbon and biodiversity in a savanna transformation frontier</b> , Estes, L., Searchinger, T., Spiegel, M., Tian, D., Sichinga, S., Mwale, M., Kehoe, L., Kuemmerle, T., Berven, A., Chaney, N., Sheffield, J., Wood, E.F., Caylor, K.K.. [pdf]	<i>Philosophical Transactions of the Royal Society B - Biological Sciences</i> 371(1703): 20150316. doi:10.1098/rstb.2015.0316.	Refereed Article
89.0	2016	<b>Modeling ecohydrological dynamics of smallholder strategies for food production in dryland agricultural systems</b> , Gower, D. B., Dell'Angelo, J., McCord, P.F., Caylor, K.K., Evans, T.P.. [pdf]	<i>Environmental Research Letters</i> 11(11): 115005. doi:10.1088/1748-9326/11/11/115005.	Refereed Article

#	Year	Title and Authors	Publisher	Category
90.0	2017	<b>An Ecohydrological Framework to Explain Shifts in Vegetation Organization Across Climatological Gradients</b> , Manfreda, S., Caylor, K.K., Good, S.P.. [pdf]	<i>Ecohydrology</i> 10(3): e1809. doi:10.1002/eco.1809 .	Refereed Article
91.0	2017	<b>Dominant role of plant physiology in trend and variability of gross primary productivity in North America</b> , Zhou, S, Zhang, Y., Ciais, P, Xiao, X.M., Luo, Y.Q., Caylor, K.K., Huang, Y., Wang, G.. [pdf]	<i>Scientific Reports</i> 7: 41366. doi:10.1038/srep41366.	Refereed Article
92.0	2017	<b>Comparison of multi-level water use efficiency between plastic film partially mulched and non-mulched croplands at eastern Loess Plateau of China</b> , Gong, D., Mei, X., Hao, W., Caylor, K.K.. [pdf]	<i>Agricultural Water Management</i> 179: 215-226. doi:10.1016/j.agwat.2016.06.006.	Refereed Article
93.0	2017	<b>Household-level heterogeneity of water resources within common-pool resource systems</b> , McCord, P., Dell'Angelo, J., Gower, D., Caylor, K.K., Evans, T.. [pdf]	<i>Ecology &amp; Society</i> 22(1). doi:10.5751/ES-09156-220148.	Refereed Article
94.0	2017	<b>Comparison of ET partitioning and crop coefficients between partial plastic mulched and non-mulched maize fields</b> , Gong, D., Mei, X., Hao, W., Wang, H., Caylor, K.K.. [pdf]	<i>Agricultural Water Management</i> 181: 23-34. doi:10.1016/j.agwat.2016.11.016.	Refereed Article
95.0	2017	<b>Triple oxygen isotope composition of leaf waters in Mpala, central Kenya</b> , Li, S., Levin, N., Soderberg, K, Dennis, K.J., Caylor, K.K.. [pdf]	<i>Earth &amp; Planetary Science Letters</i> 468: 38-50. doi:10.1016/j.epsl.2017.02.015.	Refereed Article
96.0	2017	<b>Validation of SMAP surface soil moisture products with core validation sites</b> , Colliander, A, Jackson, TJ, Bindish, R., others, including, Caylor, K.K.. [pdf]	<i>Remote Sensing of Environment</i> 191: 215-231. doi:10.1016/j.rse.2017.01.021.	Refereed Article
97.0	2017	<b>Leaf water <math>^{18}\text{O}</math> and <math>2\text{H}</math> maps show directional enrichment discrepancy in <i>Colocasia esculenta</i></b> , Gerlein-Safdi, C., Gauthier, P., Sinkler, C., Caylor, K.K.. [pdf]	<i>Plant, Cell, &amp; Environment</i> 40(10): 2095-2108. doi:10.1111/pce.13002.	Refereed Article
98.0	2017	<b>Calibration of a parsimonious distributed ecohydrological daily model in a data-scarce basin using exclusively the spatio-temporal variation of NDVI</b> , Ruiz-Perez, G., Kock, J., Manfreda, Salvatore, Caylor, K.K., Frances, F.. [pdf]	<i>Hydrology and Earth System Science</i> 21(12): 6235-6251. doi:10.5194/hess-21-6235-2017.	Refereed Article
99.0	2018	<b>Simulated sensitivity of African terrestrial ecosystem photosynthesis to rainfall frequency, intensity, and rainy season length</b> , Guan, K., Good, S.P., Caylor, K.K., Medvigy, D., Pan, Ming, Wood, E.F., Sato, H., Biasutti, M., Chen, M., Ahlstrom, A., Xiangtao, X.. [pdf]	<i>Environmental Research Letters</i> 13(2): 25013. doi:10.1088/1748-9326/aa9f30.	Refereed Article

#	Year	Title and Authors	Publisher	Category
100.0	2018	<b>Measurements and Observations in the XXI century (MOXXI): innovation and multidisciplinary to sense the hydrological cycle</b> , Flavia, T., Selker, J., van de Giesen, N., Abrate, T., Uijlenhoet, R., Porfiri, M., Manfreda, S., Caylor, K.K., 22 others. [pdf]	<i>Hydrological Sciences Journal</i> 63(2): 169-196. doi:10.1080/02626667.2017.1420191.	Refereed Article
101.0	2018	<b>A large-area, spatially continuous assessment of land cover map error and its impact on downstream analyses</b> , Estes, L, Chen, P., Debats, S., Evans, T., Ferreira, S., Kuemmerle, T., Ragazzo, G., Sheffield, J, Wolf, A., Wood, E.F., Caylor, K.K.. [pdf]	<i>Global Change Biology</i> 24(1): 322-337. doi:10.1111/gcb.13904.	Refereed Article
102.0	2018	<b>The Spatial and Temporal Domains of Modern Ecology</b> , Estes, L, Elsen, P., Truer, T., Ahmed, L., Caylor, K.K., Chang, J., Choi, J., Ellis, E. [pdf]	<i>Nature Ecology &amp; Evolution</i> 2(5): 819. doi:10.1038/s41559-018-0524-4.	Refereed Article
103.0	2018	<b>On the Use of Unmanned Aerial Systems for Environmental Monitoring</b> , Manfreda, S., McCabe, M, Miller, P., Lucas, R., Madrigal, V.P., Mallinis, G., Ben Dor, E., Helman, D., Estes, L., Ciraolo, G., 13 others including Caylor, K.. [pdf]	<i>Remote Sensing</i> 10(4): 641. doi:10.3390/rs10040641.	Refereed Article
104.0	2018	<b>Dew-induced transpiration suppression impacts the water and isotope balances of Colocasia leave</b> , Gerlain-Safdi, C., Gauthier, P.G., Caylor, K.K.. [pdf]	<i>Oecologia</i> 187(4): 1041-1051. doi:10.1007/s00442-018-4199-y.	Refereed Article
105.0	2018	<b>Dew deposition suppresses transpiration and carbon uptake in leaves</b> , Gerlain-Safdi, C., Koohafkan, MC, Chung, M., Thompson, S, Rockwell, FE, Caylor, K.K.. [pdf]	<i>Agriculture &amp; Forest Meteorology</i> 259: 305-316. doi:10.1016/j.agrformet.2018.05.015.	Refereed Article
106.0	2018	<b>Comparing empirical and survey-based yield forecasts in a dryland agro-ecosystem</b> , Zhao, Y., Vergopolan, N., Baylis, K, Blekking, J. , Caylor, K.K., Evans, T.P., Giroux, S., Sheffield, J, Estes, L.. [pdf]	<i>Agricultural &amp; Forest Meteorology</i> 259: 305-316. doi:10.1016/j.agrformet.2018.06.024.	Refereed Article
107.0	2019	<b>Biophysical effects on soil crack morphology in a faunally active dryland vertisol</b> , DeCarlo, K., Caylor, K.K.. [pdf]	<i>Geoderma</i> 334: 134-145. doi:10.1016/j.geoderma.2018.07.042.	Refereed Article
108.0	2018	<b>A global database of water vapor isotopes measured with high temporal resolution infrared laser spectroscopy</b> , Wei, Zhongwang, Lee, Xuhui, Aemisegger, Franziska, Benetti, Marion, Berkelhammer, Max, Casado, Mathieu, Caylor, K.K., Christner, E., Dryoff, C., Garcia, O.E., 16 others. [pdf]	<i>Scientific Data</i> . doi:10.1038/sdata.2018.302.	Refereed Article
109.0	2019	<b>Cognitive biases about climate variability in smallholder farming systems in Zambia</b> , Waldman, K, Vergopolan, N., Estes, L.D., Attari, S.Z., Sheffield, J., Caylor, K.K., Evans, T.P. [pdf]	<i>Weather, Climate &amp; Society</i> . doi:10.1175/WCAS-D-18-0050.1.	Refereed Article

#	Year	Title and Authors	Publisher	Category
110.0	2019	<b>A high-frequency mobile phone data collection approach for research in social-environmental systems: Applications in climate variability and food security in sub-Saharan Africa.</b> , Giroux, S., Caylor, K.K., Kouper, I., Estes, L., Schumacher, J., Waldman, K., Evans, T..	<i>Environmental Modelling &amp; Software</i> . doi:10.1016/j.envsoft.2019.05.011.	Refereed Article
111.0	2019	<b>The salience of climate change in farmer decision making within smallholder semi-arid agroecosystems</b> , Waldman, K, Attari, S, Gower, D, Giroux, S, Evans, T, Caylor, K.K..	<i>Climatic Change</i> .	Refereed Article
112.0	2019	<b>Variability in urban population distributions across Africa</b> , Tuholske, C., Caylor, K.K., Evans, T., Avery, R..	<i>Environmental Research Letters</i> . doi:10.1088/1748-9326/ab2432.	Refereed Article

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**Since Appointment:****Works In Press:**

#	Year	Title and Authors	Publisher	Category
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**Work Submitted:**

None Provided.

**PART II. TEACHING (50% Geography Dept. workload; 50% Bren School workload. Teaching release throughout the review period.)****Workload Descriptions**

1. *Geography Department*: Geography department teaching workload for full-time ladder faculty is 3 Instructional Workload Courses (IWC) per year. 50% workload is 1.5 IWC per year.
2. *Bren School*: The official teaching workload in the Bren School for full-time ladder faculty members is 3.5 Instructional Workload Courses (IWC) per academic year. Full-time faculty are expected to be in residence during the academic year and teach at least two out of three quarters unless they are on sabbatical or approved leave. Each quarter on sabbatical counts as 1.17 IWC for full-time faculty. The teaching workload for faculty with partial appointments is the equivalent fraction of 3.5 and the teaching workload is negotiated with the dean.

Every full-time faculty member will advise or co-advise a Master's Group Project (ESM 401 series) or Eco-E Project (ESM 402 series) equivalent to 1 IWC. Faculty advisors are expected to meet with master's groups weekly during the academic year.

Course Equivalencies:

- ESM 401A/ESM 402A: 4 units = 0.29 IWC
- ESM 401B/ESM 402B: 4 units = 0.29 IWC
- ESM 401C/ESM 402C: 4 units = 0.29 IWC
- ESM 401D/ESM 402D: 2 units = 0.13 IWC

Every full-time faculty member will teach and/or co-teach core courses, elective courses and seminars in the MESM and PhD programs equivalent to at least (a) 2.5 IWC in addition to advising a project or (b) 3.5 IWC if not advising a project.

Course Equivalencies:

- MESM core and elective courses: 4 units = 1 IWC; 2 units = 0.5 IWC.
- Co-taught 4-unit MESM core course = 0.6 IWC per instructor.
- Co-taught 4-unit MESM elective course = 0.5 IWC per instructor.
- MESM lab course: 4 or 5 units = 1 IWC.
- Teaching an additional section (e.g., ESM 263) = 0.67 IWC.
- PhD core courses: ESM 510 (1 unit) = 0.25 IWC; ESM 512 (2 units) = 0.5 IWC; ESM 514 (4 units) = co-taught at 1 IWC per instructor.
- PhD seminar course: 2 units = 0.5 IWC; 4 units = 1 IWC.

3. The ERI directorship is for a 5-year term with annual reappointment. The appointment comes with a 50% teaching load reduction. Therefore, my four-year annual teaching load in Geography is 1-0-1-1 (an average of 0.75 IWC per year), and in Bren it is advising one group project per year, and co-teaching the MESM core course ESM 203 starting in Fall 2018 (a total of 1.6 IWC per year).

### Catalog Courses:

Qtr	Course	Class Type	Units	Hrs/Wk	Enrollment	ESCI/Written Evals Avail.
F16	Individual Study - PhD Exam	Tut		2	1.0	No/No
W17	Individual Study - PhD Exam	Tut		2	1.0	No/No
S17	Biogeography	Lec	4.0	3	12.0	Yes/Yes
S17	Biogeography	Lec	4.0	3	17.0	Yes/Yes
S17	Group Project - A	Lec	4.0	1	4.0	No/No
S17	Individual Study - PhD Exam	Tut		2	2.0	No/No
S17	Intro to Geographical Research	Tut	2.0	1	1.0	No/No
F17	Group Project - B	Dis	4.0	1	4.0	No/No
F17	Individual Study - PhD Exam	Tut		2	2.0	No/No
W18	Group Project - C	Dis	4.0	1	4.0	No/No
W18	Individual Study - PhD Exam	Tut		2	1.0	No/No
W18	PhD Dissertation	Tut		2	1.0	No/No
S18	Group Project - A	Lec	4.0	1	5.0	No/No
S18	Group Project - D	Dis	2.0	1	4.0	No/No
S18	Individual Study - PhD Exam	Tut		2	1.0	No/No
S18	Intro to Geographical Research	Tut	2.0	1	1.0	No/No
S18	PhD Dissertation	Tut		2	1.0	No/No
F18	Earth System Science	Lec	4.0	1	nan	Yes/Yes
S19	Water, Energy, and Ecosystems	Lec	4.0	1	nan	Yes/Yes

### MESM Projects Advised

Year	Project Title	Students	Q3	Q4	Q5	Q7
2019 - 2020	Green infrastructure for coral reef protection in Hawaii'					

Year	Project Title	Students	Q3	Q4	Q5	Q7
2018 - 2019	Determining conservation research opportunities at the TNC Point Conception Dangermond Preserve	Brad Anderson,				
2017 - 2018	Determining conservation research opportunities at the TNC Point Conception Dangermond Preserve	Sravan Chalasani , Karina Herrera, John Sisser, Zach Voss	67% Strongly Agree, 33% Somewhat Agree	67% Excel- lent, 33% Very Good	67% Always, 33% Usually	66% Excel- lent, 33% Satisfactory

**Undergraduate Projects Directed:**

Student	Project	Chair/ Member	Yr Deg Compl.
None.			

**Graduate Degree Committees, MA/MS Committees:**

Student	Year	Institution	Chair/Member	Current Employment
None.				

**Graduate Degree Committees, Ph.D. Committees:**

Student	Year	Institution	Chair/Member	Current Employment
Cynthia Gerlein-Safdi	2017	Princeton University, Civil & Environmental Engineering	Chair	Postdoctoral Researcher - U. of Michigan
Stephanie Debats	2017	Princeton University, Civil & Environmental Engineering	Chair	Autonomy Engineer - Uber
Cascade Tuholske	In Progress	UCSB, Geography	Chair	-
Drew Gower	In Progress	Princeton University, Civil & Environmental Engineering	Chair	-
Keita DeCarlo	In Progress	Princeton University, Civil & Environmental Engineering	Chair	-
Natasha Krell	In Progress	UCSB, Geography	Chair	-
Ryan Avery	In Progress	UCSB, Geography	Chair	-
Chris Heckman	In Progress	UCSB, Bren	Committee Member	-

Student	Year	Institution	Chair/Member	Current Employment
Elizabeth Forbes	In Progress	UCSB, Ecology, Evolution, and Marine Ecology	Committee Member	-
Fernanda Riberio	In Progress	UCSB, Geography	Committee Member	-
Mike Johnson	In Progress	UCSB, Geography	Committee Member	-
Sara Lafia	In Progress	UCSB, Geography	Committee Member	-
Susan Meerdink	In Progress	UCSB, Geography	Committee Member	-

**Postdoctoral Scholars Supervised:**

Postdoctoral Researcher	Years	Affiliation	Current Employment
Marc Mayes	2016 -	UCSB, Geography	-
Farai Kaseke	2018 -	UCSB, Geography	-

**Other Teaching Contributions:**

None

**PART III. PROFESSIONAL ACTIVITIES****Lectures and Seminars Presented:**

Month/Year	Title	Meeting/Place
8/2018	Session on "Vegetation dynamics and ecosystem resilience under global climate change", Ecological Society of America Annual Meeting, New Orleans, LA	
8/2018	Coupled Natural-Human Systems Short Course, University of California, Irvine	
8/2019	44th New Phytologist Symposium, Accra, Ghana	

**Conference Posters and Presentations:**

Month/Year	Title	Meeting/Place
10/2018	<b>Regional migration, global climate change, and the future of irrigation on Kenyan farms.</b> Lopus, S. Waldman, K., Guido, Z., Caylor, K., Evans, T. (Invited)	International Conference on Migration, Environment and Climate: What risk inequalities?
12/2018	<b>Fusing Remote Sensing and Demography to Assess which Sub-Saharan African Cities Are Growing the Fastest.</b> Tuholske, C., Caylor, K.K. (Invited)	American Geophysical Union Fall Meeting

Month/Year	Title	Meeting/Place
12/2018	<b>A Convolutional Neural Network Approach to Segmenting Smallholder Agriculture.</b> Ryan Barry Avery, Kelly K Caylor, Lyndon D Estes, Ronald Eastman, Su Ye, Lei Song, Kaixi Zhang, Sitian Xiong, Dennis McRitchie and Tammy Woodard (Invited)	American Geophysical Union Fall Meeting
12/2018	<b>Quantifying the Effect of Farmer Management Decisions on Maize Yield in Zambia.</b> Michael Cecil, Katherine Baylis, Jordan Blekking, Kelly K Caylor, Tom P Evans, Megan Konar, Justin Sheffield, Noemi Vergopalan, Kurt Waldman, Yi Zhao, and Lyndon D Estes (Invited)	American Geophysical Union Fall Meeting
12/2018	<b>Using active learning to quantify how training data errors impact classification accuracy over smallholder-dominated agricultural systems.</b> Lyndon D Estes, Stephanie R Debats, Dennis McRitchie, Ronald Eastman, Lei Song, Tammy Woodard, Sitian Xiong, Su Ye, Kaixi Zhang, Ryan Barry Avery, and Kelly K Caylor (Invited)	American Geophysical Union Fall Meeting
12/2018	<b>Reimagining high-resolution ecosystem monitoring with low-cost autonomous sensing.</b> Kelly K Caylor, Elizabeth Forbes, Grace Lewin, Mark Hirsh (Invited)	American Geophysical Union Fall Meeting
12/2018	<b>Seasonal and diurnal drone and ground-based thermal, multispectral and hyperspectral imaging to quantify responses of California oak woodland productivity and evapotranspiration to extreme climate conditions.</b> Marc Mayes, Kelly Caylor (Invited)	American Geophysical Union Fall Meeting
4/2019	<b>Integrating humans and machines to map smallholder-dominated agricultural frontiers.</b> Estes, Lyndon Despard; Song, Lei; Ye, Su; Avery, Ryan; McRitchie, Dennis; Debats, Stephanie; Xiong, Sitian; Eastman, Ron; Woodard, Tammy; Caylor, Kelly (Invited)	4th Open Science Meeting of the Global Land Programme
4/2019	. (Invited)	

**Grants and Contracts:**

Year	Source	Title	Role	Amount	Personal Share	New/Cont.
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**Reviewing and Refereeing Activity:**

Year	Activity	Journal/Agency
2018	Promotion case reviewer	SUNY-ESF
2018	Promotion case reviewer	University of Washington
2018	Referee	Agricultural and Forest Meteorology
2018	Referee	Biology Letters
2018	Referee	Communications Biology
2018	Referee	Journal of Water Resources Planning & Management
2018	Referee	Landscape Ecology
2018	Referee	Nature Climate Change (3)



Year	Activity	Journal/Agency
2018	Referee	Nature Communications
2018	Referee	Progress in Physical Geography
2018	Referee	Water Resources Research
2018	Tenure case reviewer	University of Toronto
2019	Referee	Water Resources Research

**Special Appointments:**

2016-present, Editorial Board, *Environmental Research Letters*, *Reviews*

**Other Professional Contributions:****PART IV. SERVICE****University Service:**

Year	Role	Service
2018 - 2019	Chair	Earth Research Institute, Personnel Committee
2018 - 2019	Director	Earth Research Institute, University of California, Santa Barbara
2018 - 2019	Ex-Officio Member	Earth Research Institute Advisory Committee, UCSB
2018 - 2019	Member	Campus Data Science Initiative Working Group
2018 - 2019	Member	North Campus Open Space Administrative Advisory Group
2018 - 2019	Member	Data Science Curriculum Committee
2018 - 2019	Participating Faculty	Interdepartmental PhD Emphasis in Environment and Society
2019 - 2020	Chair	Earth Research Institute, Personnel Committee
2019 - 2020	Ex-Officio Member	Earth Research Institute Advisory Committee, UCSB
2019 - 2020	Member	Dangermond Endowed Chair Search Committee, Office of Research
2019 - 2020	Member	North Campus Open Space Administrative Advisory Group
2019 - 2020	Member	Campus Data Science Initiative Working Group
2019 - 2020	Member	Data Science Curriculum Committee
2019 - 2020	Participating Faculty	Interdepartmental PhD Emphasis in Environment and Society

**Department Service:**

Year	Role	Service
2018 - 2019	Chair	Space Committee, Department of Geography, University of California, Santa Barbara
2018 - 2019	Member	Graduate Admission Committee, Department of Geography, University of California, Santa Barbara
2018 - 2019	Member	Vegetation Data Science Faculty Search Committee, Department of Geography, UCSB
2019 - 2020	Chair	Space Committee, Department of Geography, University of California, Santa Barbara
2019 - 2020	Member	Group Project Committee, Bren School of Environmental Science and Management, University of California, Santa Barbara
2019 - 2020	Member	Dangermond Endowed Chair Search Committee, Department of Geography
2019 - 2020	Member	Graduate Admission Committee, Department of Geography, University of California, Santa Barbara

**Public Service:**

Year	Role	Service
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”