Sally Thompson

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EDUCATION

PhD, Environmental Science. Duke University 2006-2010

Bachelor of Engineering (Hons.), Environmental Engineering. 1998-2003
University of Western Australia (UWA)

Bachelor of Science (Hons.), Environmental Chemistry. 1998-2001
University of Western Australia (UWA)

HONORS AND AWARDS

- Editor's Citation for Excellence in Reviewing, 2016, Water Resources Research
- Jim Dooge Award, best paper in Hydrology and Earth System Science Journal, 2016
- NSF CAREER Award, 2016
- Certificate of Excellence in Peer Review, Elsevier Journals, 2014
- American Geophysical Union Early Career Award in Hydrology, 2013
- CUAHSI Early Career Fellowship, 2010
- Editor's Citation for Excellence in Reviewing, 2010, Water Resources Research
- Dean's Award for Outstanding Research Manuscript, 2010, Nicholas School of the Environment, Duke University
- James B Duke Fellowship, 2006-2009, Duke University
- General Sir John Monash Award, 2005-2009, General Sir John Monash Foundation, Australia

ACADEMIC EXPERIENCE

Associate Professor, Department of Civil and Environmental Engineering,
University of California, Berkeley July 2017-Present

- Teaching and undertaking research in the area of surface hydrology, ecohydrology and nonlinear dynamics

Assistant Professor, Department of Civil and Environmental Engineering,
University of California, Berkeley January 2012-June 2017

- Teaching and undertaking research in the area of surface hydrology, ecohydrology and nonlinear dynamics

Postdoctoral Associate, Duke University May 2010 – January 2012

- Developed ecohydrological models relating forest health to soil moisture dynamics; investigated emergent patterns in biogeochemical export, water balance and streamflow power spectra in catchment-scale hydrological models, analyzed spatial patterns in dryland vegetation and developed data assimilation techniques based on these spatial patterns.

Visiting Assistant Professor, Purdue University August 2010 – Dec 2010

- Taught courses "Propagation of Ecological Influence: Environmental Transport", and "Ecological Science and Engineering Colloquium" and developed data- and model- driven systems theory for exploring alterations in catchment ecosystem dynamics along human impact gradients.

PROFESSIONAL ENGINEERING EXPERIENCE

Sinclair Knight Merz, Perth, Western Australia — Jan 2004 – Aug 2006
- Environmental engineering consultant

Honors Research (Environmental Engineering), UWA — Jan – Nov 2003
- Modeling tree belts as tools for dryland salinity remediation

University of Western Australia, Perth, Western Australia — Dec 2002 – Feb 2003
- Environmental Design Project Manager

Honors Research (Chemistry), UWA — Jan – Nov 2001
- Research into the public communication of science as an educational problem

COURSES TAUGHT

CE 103 Introductory hydrology — Spring 2012-2017
3 units, UC Berkeley, Civil and Environmental Engineering

CE 203 Surface hydrology — Fall 2012-2016
3 units, UC Berkeley, Civil and Environmental Engineering

CE 191 Special Topics: Ecohydrology — Spring 2016
1 unit, UC Berkeley, Civil and Environmental Engineering

CE 105 Wind and Water: Design for a variable environment — Fall 2016
3 units, UC Berkeley, Civil and Environmental Engineering

RESEARCH SUPERVISION

Undergraduate Research:
Sixteen (16) undergraduate researchers supervised (from Civil and Environmental Engineering, Integrative Biology and Environmental Science and Policy Departments).

Masters Research:
Seven (7) Masters student researchers supervised (from Civil and Environmental Engineering, Energy and Resources Group, and College of Environmental Design).

Ph.D.:
Graduated:
Gabrielle Boisramé, 2016
Topic: *Wildfire effects on the ecohydrology of a Sierra Nevada watershed.*

Morgan Levy, 2016 (Energy and Resources Group)
Topic: *Effects of regional land use change on hydrology in Northern Brazil.*

David Dralle, 2016.
Title: *How much water will we have by the end of the summer? Progress and pitfalls along the path to prediction.*

Marc Müller, 2015
Title: *Bridging the information gap: Remote sensing and micro-hydropower feasibility in data scarce regions.*

Alan Vaz Lopes (co-advised with Prof. John Dracup), 2015
Title: *Analysis of Hydrologic Droughts in the Amazon Basin.*

In progress:

Michaella Chung (Systems Engineering, advanced to candidacy)
Topic: *Observing water temperatures from the air: Linking Unmanned Aerial Systems (UAS) and hydrodynamic modelling to investigate groundwater inflows to the South Fork Eel River*.

Gopal Penny (advanced to candidacy)
Topic: *Why is the Arkavathy River Drying? An investigation of hydrologic changes in the context of an emerging, anthropogenic, water crisis.*

George Greer
Topic: *How stable is the habitat provided by thermal refugia at the confluence of cold water tributaries to hot rivers? A case study at the Eel River, California*.

Minghui Zhang (Year 1)
Topic: Effects of irrigation on predictions in ungagued basins

Liya Weldegebriel (Year 1)
Topic: The business case for soil and water conservation in the Lake Tana Basin (Ethiopian Blue Nile)

Katya Rakmatulinha (Year 1)
Topic: Natural fire regimes and their effects on Sierra Nevada water resources

Postdoctoral Scholars:
Xue Feng, 2015-present
Topic: *Predicting plant hydraulic risks in seasonally dry environments.*

Lissa McVean, 2015-2016
Topic: *Shifting baselines: Characterizing the effects of flood control infrastructure and land use change on inflows and outflows from the Sacramento-San Joaquin Delta from 1850 to present*.

ACADEMIC SERVICE

Campus

Quantitative Environmental Scientist Faculty Search Committee, Energy and Resources Group, external member.	2015–2016
Watershed Science Faculty Search Committee, Department of Environmental Science and Policy, external member.	2014–2015
UC Berkeley representative to the Consortium of Universities for the Advancement of Hydrologic Science, Inc (CUAHSI).	2012 – present

Departmental and College

Member, Outreach Committee, Department of Civil and Environmental Engineering.	2015– present
Member, College of Engineering Committee on Engineering Science.	2012 – present
Faculty Advisor, American Society of Civil Engineering, UCB student chapter.	2012 – present
Undergraduate Advisor, Department of Civil and Environmental Engineering.	2013–2015

Course coordinator, CE 198 (DCal). 2015

PROFESSIONAL QUALIFICATIONS

Chartered Professional Engineer, Engineers Australia, awarded 2006.

PROFESSIONAL AFFILIATIONS

Member, American Geophysical Union
Member, American Society of Civil Engineering

PROFESSIONAL SERVICE

AGU Early Career Hydrology Award Selection Committee, Chair.	2017– present
…, Member.	2015– present
AGU Horton Award Selection Committee.	2015– present
General Sir John Monash Scholarship Application Reviewer.	2014– present
Handling Editor, Hydrology and Earth Systems Science.	2011– present
Editorial board member, Advances in Water Resources.	2012– present
Editorial board member, Ecohydrology.	2015– present
Editorial board member, Australasian Journal of Water Resources.	2016– present
NSF Review Panelist "Geosciene Graduate Research Fellowships"	2016
Department of Energy Earth Sciences Program Reviewer	2012-present
NSF Hydrological Sciences Program Reviewer	2012-present
National Geographic Society Grant Reviewer	2014

Professional reviews:
Reviewer for 19 Journals:
Advances in Water Resources; Ecology Letters; Ecosphere; Environmental Modelling and Software; Functional Ecology; Geophysical Research Letters; Global Change Biology; Hydrologic Processes; Hydrology and Earth System Science; Journal of Ecology; Journal of Hydrologic Engineering; Journal of Hydrology; Journal of the Royal Society Interface; Movement Ecology; Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources; Plant and Soil; Proceedings of the National Academy of Science; Water Resources Research; WIRES Water.

RESEARCH GRANTS

Summary: Over 13 grants awarded in 5 years (internal University awards not listed), totalling $7,586,082 in external funding.

1. NSF: Water balance and Plant Ecophysiology in Coastal California: Linking Models and Mechanisms to project under future climate scenarios, 2016. $726,511
2. NSF: Assessing controls on hydrologic connectivity, plant water availability and degradation risk in drylands with isotope tracers and Lagrangian modeling, 2016. $282,543
3. NSF CAREER: Fire management effects on Sierra Nevada ecohydrology - a dynamical systems approach, 2016. $536,987
4. Los Angeles Metropolitan Water District: Shifting Baselines in the San Francisco Bay-Delta Watershed: Reconstructing 165 years of Change Through Data Synthesis and Modeling, 2015. $117,924
5. NSF CNIC: US-India Collaborative Research Linking Remote Sensing, Citizen Science and Robotics to Address Critical Environmental Problems in Data Sparse Regions, 2014. $38,746
6. Joint Fire Sciences: Hydrology and Fire in the Sierra Nevada: A Possible Win-Win, 2014, $395,107

7. NSF RAPID: The Endless Summer: Implications of a 100-year drought for the Functional Biology of Native Californian Plants and Ecosystems, 2014. $180,411
8. NSF: The Eel River Critical Zone Observatory: Exploring How the Critical Zone will Mediate Watershed Currencies and Ecosystem Response in a Changing Environment, 2014. $4,899,996
9. USDA/National Robotics Initiative: Co-Aerial Ecologist: Robotic Water Sampling and Sensing in the Wild. Subcontract from University of Nebraska, Lincoln, 2013. $142,857
10. The Nature Conservancy: Ecohydrological Survey at Blue Oak Ranch Reserve, 2013. $10,000
11. The Nature Conservancy: Biophysical contrasts at tree – grass ecotones at Blue Oak Ranch Reserve: a pilot study to investigate the sensitivity of landscape structure to climate change, 2011. $5000
12. NSF: Desertification risks of dryland ecosystems inferred from the dynamics of coherent spatial vegetation patterning, 2010. $250,000
13. General Sir John Monash Foundation (Australia): Ecohydrology and Vegetation Patterns: Synthesizing Physics, Ecohydrology and Remote Sensing, 2006. $150,000 (AUD)

PUBLISHED PAPERS

Summary: 57 papers published or in press. Papers in review/preparation are unlisted. Papers have been cumulatively cited 1369 times. My h-Index is 19.

Bold names indicate student authors

1. Thompson, S.E. and G.G. Katul, "Plant Propagation Fronts and Wind Dispersal: An Analytical Model to Upscale from Seconds to Decades using Superstatistics," *The American Naturalist*, Vol. 171, pp. 468-479, 2008.
   http://www.jstor.org/stable/10.1086/528966

2. Thompson, S.E., G.G. Katul and S. McMahon, "Role of Biomass Spread in Vegetation Pattern Formation within Arid Ecosystems," *Water Resources Research*, Vol. 44(W10421), doi: 10.1029/2008WR006916, 2008.
   http://onlinelibrary.wiley.com/doi/10.1029/2008WR006916/full

3. Thompson, S.E. and G.G. Katul, "Secondary Seed Dispersal and Its Role in Landscape Organization," *Geophysical Research Letters*, Vol. 36(L02402) , 2009.
   http://onlinelibrary.wiley.com/doi/10.1029/2008GL036044/full

4. Thompson, S.E., G. Katul, J. Terborgh and P. Alvarez-Loayza, "Spatial Organization of Vegetation Arising from Non-local Excitation with Local Inhibition in Tropical Rainforests," *Physica D*, Vol. 238, pp. 1061-1067, 2009.
   http://www.sciencedirect.com/science/article/pii/S0167278909000797

5. Thompson, S.E., C.J. Harman, P. Heine and G.G. Katul, "Vegetation-Infiltration relationships across Climatic and Soil Type Gradients," *Journal of Geophysical Research Biogeosciences*, Vol. 115(G02023), doi: 10.1029/2009JG001134, 2010.
   http://onlinelibrary.wiley.com/doi/10.1029/2009JG001134/full

6. Thompson, S.E., G.G. Katul and A. Porporato, "The Role of Microtopography in Rainfall-Runoff Partitioning: An Analysis using Idealized Geometry," *Water Resources Research*, Vol. 46(W07520), doi: 10.1029/2009WR008835, 2010.
   http://onlinelibrary.wiley.com/doi/10.1029/2009WR008835/full

7. Thompson, S.E. and K.E. Daniels, "A Porous Convection Model for Small-Scale Grass Patterns," *The American Naturalist*, Vol. 075, pp. E10-E15, 2010. http://www.jstor.org/stable/10.1086/648603

8. Thompson, S.E., P. Alvarez-Loayza, J.T. Terborgh and G.G. Katul, "The Effects of Plant Pathogens on Tree Recruitment in the Western Amazon under a Projected Future Climate: A Dynamical Systems Analysis," *Journal of Ecology*, Vol. 98(6), pp. 1434-1446, 2010. http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2745.2010.01726.x/full

9. Basu, N.B., G. Destouni, J.W. Jawitz, S.E. Thompson, N.V. Loukinova, A. Darracq, S. Zanardo, M. Yaeger, M. Sivapalan, A. Rinaldo and P.S.C. Rao, "Nutrient Loads Exported from Managed Catchments Reveal Emergent Biogeochemical Stationarity," *Geophysical Research Letters*, Vol. 37(L23404), doi: 10.1029/2010GL045168, 2010. http://onlinelibrary.wiley.com/doi/10.1029/2010GL045168/full

10. Nathan, R., G.G. Katul, G. Bohrer, A. Kuparinen, M.B. Soons, S.E. Thompson, A. Trakhtenbrot and H.S. Horn, "Mechanistic Models of Seed Dispersal by Wind," *The Journal of Theoretical Ecology*, Vol. 4(2), pp.113-132, doi: 10.1007/s12080-011-0115-3, 2011. http://link.springer.com/article/10.1007/s12080-011-0115-3

11. Thompson, S.E., C.J. Harman, P.A. Troch, P.D. Brooks and M. Sivapalan, "Spatial Scale Dependence of Ecohydrologically Mediated Water Balance Partitioning: A Synthesis Framework for Catchment Ecohydrology," *Water Resources Research*, Vol. 47, W00J03, 20 pp., doi: 10.1029/2010WR009998, 2011. http://onlinelibrary.wiley.com/doi/10.1029/2010WR009998/full

12. Guan, K., S.E. Thompson, C.J. Harman, N.B. Basu, P.S.C Rao, M. Sivapalan, A.I. Packman and P.K. Kalita, "Spatiotemporal Scaling of Hydrological and Agrochemical Export Dynamics in a Tile-Drained Midwestern Watershed." *Water Resources Research*, Vol. 47, W00J02, 15 pp., doi: 10.1029/2010WR009997, 2011. http://onlinelibrary.wiley.com/doi/10.1029/2010WR009997/full

13. Thompson, S.E., G.G. Katul, A.G. Konings and L. Ridolfi, "Unsteady Overland Flow on Flat Surfaces Induced by Spatial Permeability Contrasts," *Advances in Water Resources*, Vol. 34, pp. 1049-1068, doi: 10.1016/j.advwatres.2011.05.012, 2011. http://www.sciencedirect.com/science/article/pii/S0309170811001114

14. Basu, N., P.C.S. Rao, S.E. Thompson, N. Loukinova, S. Donner, S. Ye, and M. Sivapalan, "Spatiotemporal Averaging of In-Stream Solute Removal Dynamics," *Water Resources Research*, Vol. 47, doi: 10.1029/2010WR010196, 2011. http://onlinelibrary.wiley.com/doi/10.1029/2010WR010196/full

15. Thompson, S.E., C.J. Harman, A.G. Konings, M. Sivapalan, A.Neal and P.A. Troch, "Comparative Hydrology Across AmeriFlux Sites: The Variable Roles of Climate, Vegetation, and Groundwater," *Water Resources Research*, July 2011, Vol. 47, W00J07, 17 pp., doi: 10.1029/2010WR009797. http://onlinelibrary.wiley.com/doi/10.1029/2010WR009797/full

16. Thompson, S.E., N.B. Basu, J. Lascurain Jr., A. Aubeneau and P.S.C. Rao, "Relative Dominance of Hydrologic Versus Biogeochemical Factors on Solute Export Across Impact Gradients," *Water Resources Research*, Vol. 47, W00J05, 20 pp., doi: 10.1029/2010WR009605, 2011. http://onlinelibrary.wiley.com/doi/10.1029/2010WR009605/full

17. Thompson, S.E., C.J. Harman, R. Schumer, J.S. Wilson and N.B. Basu, P.D. Brooks, S.D.Donner, M.A. Hassan, A.I. Packman, P.S.C. Rao, P.A. Troch, and M. Sivapalan, "Patterns, Puzzles and People: Implementing Hydrologic Synthesis," *Hydrological Processes*, Vol. 25, pp. 3256-3266, doi: 10.1002/hyp.8234, 2011. http://onlinelibrary.wiley.com/doi/10.1002/hyp.8234/full

18. Basu, N., S.E.Thompson and P.S.C. Rao, "Hydrologic and Biogeochemical Functioning of Intensively Managed Catchments: A Synthesis of Top-Down Analyses," *Water Resources Research*, Vol. 47, doi: 10.1029/2011WR010800, 2011. http://onlinelibrary.wiley.com/doi/10.1029/2011WR010800/full

19. Sivapalan, M., S.E. Thompson, C.J. Harman, N.B. Basu and P. Kumar, "Water Cycle Dynamics in a Changing Environment: Improving Predictability Through Synthesis," *Water Resources Research*, Vol. 47, W00J01, 7 pp., doi: 1029/2011WR011377, 2011. http://onlinelibrary.wiley.com/doi/10.1029/2011WR011377/full

20. Thompson, S.E. and G.G. Katul, "Inferring Ecosystem Parameters from Observation of Vegetation Patterns," *Geophysical Research Letters*, Vol. 38, doi: 10.1029/2011GL049182, 2011. http://onlinelibrary.wiley.com/doi/10.1029/2011GL049182/full

21. Thompson, S.E. and G.G. Katul, "Multiple Mechanisms Generate Lorentzian and 1/fx Power Spectra in Daily Stream-Flow time series," *Advances in Water Resources*, Vol. 37, pp. 94-103, doi: 10.1016/j.advwatres.2011.10.010, 2012. http://www.sciencedirect.com/science/article/pii/S0309170811002028

22. Konings, A.G., G.G. Katul and S.E. Thompson, "A Phenomenological Model for the Flow Resistance Over Submerged Vegetation," *Water Resources Research*, Vol. 48, doi: 10.1029/2011WR011000, 2012. http://onlinelibrary.wiley.com/doi/10.1029/2011WR011000/full

23. Thompson, S.E., and G.G. Katul, "Hydraulic determinism as a constraint on the evolution of ecosystems and organisms," *The Journal of Hydraulic Research*, Vol. 50, pp. 547-557, doi: http://dx.doi.org/10.1080/00221686.2012.732969, 2012. http://dx.doi.org/10.1080/00221686.2012.732969

24. Thompson, S.E., I. Ngambeki, P.A. Troch, M. Sivapalan, D. Evangelou, "Incorporating student-centered approaches into catchment hydrology teaching: a review and synthesis, Hydrology and Earth System Sciences," *Hydrology and Earth Systems Science*, Jan 2012, Vol. 16, pp. 3263-3278, doi: 10.5194/hess-16-3263-2012. http://www.hydrol-earth-syst-sci.net/16/3263/2012/hess-16-3263-2012.html

25. Thompson, S.E., S. Levin, I. Rodriguez-Iturbe, "Linking plant disease risk and precipitation drivers: A dynamical systems framework," *The American Society of Naturalists*, Vol. 181, pp. E1-E16, doi:10.1086/668572, 2012.

http://www.jstor.org/stable/10.1086/668572?origin=JSTOR-pdf&

26. Thompson, S.E. and G.G. Katul, "Implications of non-random seed abscission and global stilling for migration of wind-dispersed plant species," *Global Change Biology*, Vol. 19, pp.1720-1735, 2013, doi: 10.1111/gcb.12173, 2013.
http://onlinelibrary.wiley.com/doi/10.1111/gcb.12173/full

27. Thompson, S.E., M. Sivapalan, C.J. Harman, V. Srinivasan, M.R. Hipsey, P. Reed, A. Montanari, G. Bloeschl, "Developing predictive insight into changing water systems: use-inspired hydrologic science for the Anthropocene," *Hydrology and Earth System Sciences*, Vol. 17, pp. 5013-5039, doi:10.5194/hess-17-5013-2013, 2013.
http://www.hydrol-earth-syst-sci.net/17/5013/2013/hess-17-5013-2013.html

28. A. Montanari, G. Young, H.H.G. Savenije, D. Hughes, T. Wagener, L.L. Ren, D. Koutsoyiannis, C. Cudennec, E. Toth, S. Grimaldi, G. Blöschl, M. Sivapalan, K. Beven, H. Gupta, M. Hipsey, B. Schaefli, B. Arheimer, E. Boegh, S.J. Schymanski, G. Di Baldassarre, B. Yu, P. Hubert, Y. Huang, A. Schumann, D.A. Post, V. Srinivasan, C. Harman, S. Thompson, M. Rogger, A. Viglione, H. McMillan, G. Characklis, Z. Pang & V. Belyaev (2013) ""Panta Rhei—Everything Flows:" Change in hydrology and society—The IAHS Scientific Decade 2013–2022," *Hydrological Sciences Journal*, Vol. 58:6, pp. 1256-1275, DOI: 10.1080/02626667.2013.809088, 2013
http://www.tandfonline.com/doi/abs/10.1080/02626667.2013.809088?queryID=%24{resultBean.queryID}#.U62hnrH0Vpg

29. **Müller, M.** and S.E. Thompson, "Bias adjustment of satellite rainfall data through stochastic modeling: Methods development and application to Nepal, Advances in Water Resources," Vol. 60, pp. 121-134, http://dx.doi.org/10.1016/j.advwatres.2013.08.004, 2013.
http://www.sciencedirect.com/science/article/pii/S0309170813001358

30. **Penny, G.G.**, K.E. Daniels and S.E. Thompson, "Local properties of patterned vegetation: Quantifying exogenous and endogenous effects," *Philosophical Transactions of the Royal Society A,* Vol. 371, No. 2004 20120359, http://dx.doi.org/10.1098/rsta.2012.0359, 2013.
http://rsta.royalsocietypublishing.org/site/subscriptions/

31. Thompson, S.E., S. Levin, I. Rodriguez-Iturbe, "Rainfall and temperatures changes have confounding impacts on *Phytophthora cinnamomi* occurrence risk in the south western USA under climate change scenarios," *Global Change Biology*, Vol. 20, pp. 1299–1312, doi: 10.1111/gcb.12463, 2014.
http://onlinelibrary.wiley.com/doi/10.1111/gcb.12463/full

32. Thompson, S.E., Assouline, S., Chen, L., Trakhtenbrot, A., Svoray, T. and Katul, G.G., "Secondary dispersal driven by overland flow in drylands: Review and mechanistic model development," *Movement Ecology,* Vol 2:7, doi: 10.1186/2051-3933-2-7, 2014.
http://www.movementecologyjournal.com/content/2/1/7

33. **Müller, M.**, **Dralle D.** and Thompson S.E., "Analytical model for flow duration curves in seasonally dry climates," *Water Resources Research*, Vol. 50, pp. 5510–5531, doi: 10.1002/2014WR015301, 2014.
http://onlinelibrary.wiley.com/doi/10.1002/2014WR015301/full

34. Vico, G., S.E. Thompson, S. Manzoni, A. Molini, J. Albertson, J. Almeida-Cortez, P. Fay, A. Guswa, H. Liu, T.G. Wilson, and A. Porporato, "Climatic, ecophysiological and phenological controls on plant ecohydrological strategies in seasonally dry ecosystems," *Ecohydrology*, doi: 10.1002/eco.1533, 2014.
http://onlinelibrary.wiley.com/doi/10.1002/eco.1533/full

35. **Dralle, D., G. Boisrame** and S.E. Thompson, Spatially variable groundwater recharge and the hillslope hydrologic response: Analytical solutions to the linearized hillslope Boussinesq equation, *Water Resources Research,* doi:10.1002/2013WR015144, 2014.
http://onlinelibrary.wiley.com/doi/10.1002/2013WR015144/abstract

36. Srinivasan, V., S.E. Thompson, K. Madhyastha, **G. Penny**, K. Jeremiah and S. Lele, 2015, Why is the Arkavathy River drying? A multiple hypothesis approach in a data scarce region, *Hydrology and Earth System Science*, Vol. 19, pp. 1905-1917, doi: 10.5194/hess-19-1905-2015, 2015.
http://www.hydrol-earth-syst-sci.net/19/1905/2015/hess-19-1905-2015.html
(This paper received the 2016 Jim Dooge award for the best research paper in Hydrology and Earth System Science for 2015)

37. Carah, J., J. Howard, S.E. Thompson, A. Gianotti, S. Bauer, S. Carlson, **D. Dralle**, M. Gabriel, L. Hulette, B. Johnson, C. Knight, S. Kupferberg, S. Martin, R. Naylor, M. Power, High Time for Conservation: Adding the Environment to the Debate on Marijuana Conservation. *Bioscience,* 65(8), pp 822-829, doi: 10.1093/biosci/biv083, 2015.

38. **Muller, M.F.** and Thompson, S.E., A topological restricted maximum likelihood (TopREML) approach to regionalize trended runoff signatures in stream networks. *Hydrology and Earth System Science,* 19, pp. 2925-2942, doi:10.5194/hess-19-2925-2015.

39. **Dralle, D.** and Karst, N. and Thompson, S.E., a,b careful! Scale invariance hinders comparative analyses in power law models of the streamflow recession. Geophysical Research Letters, 42, doi:10.1002/2015GL066007, 2015.

40. Assouline, S., S.E. Thompson, L. Chen, T. Svoray, S. Sela and G. Katul, The dual role of soil crusts in desertification. *Journal of Geophysical Research, 120,* doi:10.1002/2015JG003185, 2015.

41. Manzoni, S., G. Vico, S.E. Thompson, F. Beyer, and M. Weih. Contrasting leaf phenological strategies optimize carbon gain under droughts of different duration. *Advances in Water Resources*, *84*, 37-51, doi:10.1016/j.advwatres.2015.08.00,1 2015.

42. **Chung, M.E.**, C. Detweiler, M. Hamilton, J. Higgins, J-P Ore, S.E. Thompson. Obtaining the Thermal Structure of Lakes from the Air: Development and Evaluation of a UAS water sensing platform. *Water, 7*, 6467-6482, 2015.

43. Wang, W., W. Huai, S.E. Thompson and G.G. Katul. Steady non-uniform shallow flow in emergent vegetation. *Water Resources Research,* 51, 10047–10064, doi:10.1002/, 2015.

44. **Dralle, D.** and Karst, N. and Thompson S.E., Dry season streamflow persistence in seasonal climates, *Water Resources Research*, 51, doi:10.1002/2015WR017752, 2015.

45. **Dralle, D.** and S.E. Thompson, A probabilistic model for soil moisture in seasonally dry climates, *Water Resources Research*, 52, doi:10.1002/2015WR017813, 2015.

46. Karst N, **D. Dralle**, S.E. Thompson, Spiral and Rotor Patterns Produced by Fairy Ring Fungi. PLoS ONE 11(3): e0149254. doi:10.1371/journal.pone.0149254, 2016.

47. **Müller, M.F.** and S.E. Thompson, Comparing statistical and process-based flow duration curve models in ungauged basins and changing rainfall regimes. *Hydrology and Earth Systems Science,* 20, 669-683, doi:10.5194/hess-20-669-2016, 2016.

48. **Müller, M.F.**, N. Maggi Kelly and S.E. Thompson**,** Bridging the information gap: A webGIS tool for rural electrification in data-scarce regions. *Applied Energy,* 171, pp 277-286, http://dx.doi.org/10.1016/j.apenergy.2016.03.052, 2016.

49. **Lopes, A. V.**, J. C. H. Chiang, S.E. Thompson, and J. A. Dracup, Trend and uncertainty in spatial-temporal patterns of hydrological droughts in the Amazon basin, *Geophysical Research Letters*, 43, 3307–3316, doi:10.1002/2016GL067738, 2016.

50. **Boisramé, G**., Thompson, S., Collins, B., and Stephens, S., Managed Wildfire Effects on Forest Resilience and Water in the Sierra Nevada, *Ecosystems*, 2016. doi:10.1007/s10021-016-0048-1.

51. **Dralle, D. N.**, Karst, N. J., **Charalampous, K., Veenstra, A.**, and Thompson, S. E.: Event-scale power law recession analysis: quantifying methodological uncertainty, *Hydrology and Earth Systems Science*, 21, 65-81, doi:10.5194/hess-21-65-2017, 2017.

52. McLaughlin, B. Ackerly D.D., Klos, P.Z., **Natali, J.**, Dawson, T.E. and Thompson, S.E., Hydrologic refugia, plants and climate change, *Global Change Biology*, doi: 10.1111/gcb13629, 2017.

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