

Sally E Thompson

List of Publications by Year in descending order

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Version: 2024-02-01

114
papers

5,155
citations

87723

38
h-index

102304

66
g-index

122
all docs

122
docs citations

122
times ranked

6924
citing authors

#	ARTICLE	IF	CITATIONS
1	“Panta Rhei” Everything Flows: Change in hydrology and society The IAHS Scientific Decade 2013–2022. <i>Hydrological Sciences Journal</i> , 2013, 58, 1256-1275.	1.2	569
2	Nutrient loads exported from managed catchments reveal emergent biogeochemical stationarity. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	338
3	Hydrologic refugia, plants, and climate change. <i>Global Change Biology</i> , 2017, 23, 2941-2961.	4.2	257
4	Relative dominance of hydrologic versus biogeochemical factors on solute export across impact gradients. <i>Water Resources Research</i> , 2011, 47, .	1.7	217
5	Mechanistic models of seed dispersal by wind. <i>Theoretical Ecology</i> , 2011, 4, 113-132.	0.4	157
6	Hydrologic and biogeochemical functioning of intensively managed catchments: A synthesis of top-down analyses. <i>Water Resources Research</i> , 2011, 47, .	1.7	143
7	Spatial scale dependence of ecohydrologically mediated water balance partitioning: A synthesis framework for catchment ecohydrology. <i>Water Resources Research</i> , 2011, 47, .	1.7	133
8	Vegetation–infiltration relationships across climatic and soil type gradients. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	130
9	Developing predictive insight into changing water systems: use-inspired hydrologic science for the Anthropocene. <i>Hydrology and Earth System Sciences</i> , 2013, 17, 5013-5039.	1.9	119
10	Low Vulnerability to Xylem Embolism in Leaves and Stems of North American Oaks. <i>Plant Physiology</i> , 2018, 177, 1066-1077.	2.3	117
11	Fire and climate change: conserving seasonally dry forests is still possible. <i>Frontiers in Ecology and the Environment</i> , 2020, 18, 354-360.	1.9	102
12	Comparative hydrology across AmeriFlux sites: The variable roles of climate, vegetation, and groundwater. <i>Water Resources Research</i> , 2011, 47, .	1.7	96
13	Role of microtopography in rainfall–runoff partitioning: An analysis using idealized geometry. <i>Water Resources Research</i> , 2010, 46, .	1.7	86
14	Managed Wildfire Effects on Forest Resilience and Water in the Sierra Nevada. <i>Ecosystems</i> , 2017, 20, 717-732.	1.6	81
15	Spatiotemporal scaling of hydrological and agrochemical export dynamics in a tile-drained Midwestern watershed. <i>Water Resources Research</i> , 2011, 47, .	1.7	79
16	Climatic, ecophysiological, and phenological controls on plant ecohydrological strategies in seasonally dry ecosystems. <i>Ecohydrology</i> , 2015, 8, 660-681.	1.1	79
17	Moving sociohydrology forward: a synthesis across studies. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 3667-3679.	1.9	70
18	Land Use Change Increases Streamflow Across the Arc of Deforestation in Brazil. <i>Geophysical Research Letters</i> , 2018, 45, 3520-3530.	1.5	69

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19	Analytical model for flow duration curves in seasonally dry climates. <i>Water Resources Research</i> , 2014, 50, 5510-5531.	1.7	67
20	Quantification of the seasonal hillslope water storage that does not drive streamflow. <i>Hydrological Processes</i> , 2018, 32, 1978-1992.	1.1	66
21	Bias adjustment of satellite rainfall data through stochastic modeling: Methods development and application to Nepal. <i>Advances in Water Resources</i> , 2013, 60, 121-134.	1.7	65
22	Low Subsurface Water Storage Capacity Relative to Annual Rainfall Decouples Mediterranean Plant Productivity and Water Use From Rainfall Variability. <i>Geophysical Research Letters</i> , 2019, 46, 6544-6553.	1.5	63
23	High Time for Conservation: Adding the Environment to the Debate on Marijuana Liberalization. <i>BioScience</i> , 2015, 65, 822-829.	2.2	61
24	Why is the Arkavathy River drying? A multiple-hypothesis approach in a data-scarce region. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 1905-1917.	1.9	54
25	Event-scale power law recession analysis: quantifying methodological uncertainty. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 65-81.	1.9	54
26	Dew deposition suppresses transpiration and carbon uptake in leaves. <i>Agricultural and Forest Meteorology</i> , 2018, 259, 305-316.	1.9	54
27	No local adaptation in leaf or stem xylem vulnerability to embolism, but consistent vulnerability segmentation in a North American oak. <i>New Phytologist</i> , 2019, 223, 1296-1306.	3.5	52
28	Vegetation change during 40 years of repeated managed wildfires in the Sierra Nevada, California. <i>Forest Ecology and Management</i> , 2017, 402, 241-252.	1.4	48
29	Role of biomass spread in vegetation pattern formation within arid ecosystems. <i>Water Resources Research</i> , 2008, 44, .	1.7	47
30	Spatiotemporal averaging of in-stream solute removal dynamics. <i>Water Resources Research</i> , 2011, 47, .	1.7	47
31	Beyond isohydrlicity: The role of environmental variability in determining plant drought responses. <i>Plant, Cell and Environment</i> , 2019, 42, 1104-1111.	2.8	47
32	Water cycle dynamics in a changing environment: Improving predictability through synthesis. <i>Water Resources Research</i> , 2011, 47, .	1.7	45
33	Comparing statistical and process-based flow duration curve models in ungauged basins and changing rain regimes. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 669-683.	1.9	45
34	a, b careful: The challenge of scale invariance for comparative analyses in power law models of the streamflow recession. <i>Geophysical Research Letters</i> , 2015, 42, 9285-9293.	1.5	44
35	Rainfall and temperatures changes have confounding impacts on <i>Phytophthora cinnamomi</i> occurrence risk in the southwestern USA under climate change scenarios. <i>Global Change Biology</i> , 2014, 20, 1299-1312.	4.2	43
36	Steady nonuniform shallow flow within emergent vegetation. <i>Water Resources Research</i> , 2015, 51, 10047-10064.	1.7	43

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37	Plant Propagation Fronts and Wind Dispersal: An Analytical Model to Upscale from Seconds to Decades Using Superstatistics. <i>American Naturalist</i> , 2008, 171, 468-479.	1.0	41
38	The dual role of soil crusts in desertification. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 2108-2119.	1.3	41
39	A phenomenological model for the flow resistance over submerged vegetation. <i>Water Resources Research</i> , 2012, 48, .	1.7	40
40	Unsteady overland flow on flat surfaces induced by spatial permeability contrasts. <i>Advances in Water Resources</i> , 2011, 34, 1049-1058.	1.7	39
41	The ecohydrological context of drought and classification of plant responses. <i>Ecology Letters</i> , 2018, 21, 1723-1736.	3.0	38
42	Forest loss in Brazil increases maximum temperatures within 50 km. <i>Environmental Research Letters</i> , 2019, 14, 084047.	2.2	38
43	Restoring a Natural Fire Regime Alters the Water Balance of a Sierra Nevada Catchment. <i>Water Resources Research</i> , 2019, 55, 5751-5769.	1.7	38
44	Secondary seed dispersal and its role in landscape organization. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	36
45	Reconciling seasonal hydraulic risk and plant water use through probabilistic soil-plant dynamics. <i>Global Change Biology</i> , 2017, 23, 3758-3769.	4.2	35
46	How competitive is drought deciduousness in tropical forests? A combined eco-hydrological and eco-evolutionary approach. <i>Environmental Research Letters</i> , 2017, 12, 065006.	2.2	35
47	Weather underground: Subsurface hydrologic processes mediate tree vulnerability to extreme climatic drought. <i>Global Change Biology</i> , 2020, 26, 3091-3107.	4.2	35
48	Contrasting leaf phenological strategies optimize carbon gain under droughts of different duration. <i>Advances in Water Resources</i> , 2015, 84, 37-51.	1.7	34
49	The effects of plant pathogens on tree recruitment in the Western Amazon under a projected future climate: a dynamical systems analysis. <i>Journal of Ecology</i> , 2010, 98, 1434-1446.	1.9	31
50	Quantifying Asynchronicity of Precipitation and Potential Evapotranspiration in Mediterranean Climates. <i>Geophysical Research Letters</i> , 2019, 46, 14692-14701.	1.5	31
51	Local properties of patterned vegetation: quantifying endogenous and exogenous effects. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20120359.	1.6	30
52	Bridging the information gap: A webGIS tool for rural electrification in data-scarce regions. <i>Applied Energy</i> , 2016, 171, 277-286.	5.1	28
53	Drag coefficient estimation using flume experiments in shallow non-uniform water flow within emergent vegetation during rainfall. <i>Ecological Indicators</i> , 2018, 92, 367-378.	2.6	26
54	Linking Plant Disease Risk and Precipitation Drivers: A Dynamical Systems Framework. <i>American Naturalist</i> , 2013, 181, E1-E16.	1.0	25

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55	Implications of nonrandom seed abscission and global stiling for migration of wind-dispersed plant species. <i>Global Change Biology</i> , 2013, 19, 1720-1735.	4.2	25
56	Hydrologic responses to restored wildfire regimes revealed by soil moisture-vegetation relationships. <i>Advances in Water Resources</i> , 2018, 112, 124-146.	1.7	23
57	Interannual variability of ecosystem iso/anisohdry is regulated by environmental dryness. <i>New Phytologist</i> , 2021, 229, 2562-2575.	3.5	23
58	Fire, water, and biodiversity in the Sierra Nevada: a possible triple win. <i>Environmental Research Communications</i> , 2021, 3, 081004.	0.9	23
59	Patterns, puzzles and people: implementing hydrologic synthesis. <i>Hydrological Processes</i> , 2011, 25, 3256-3266.	1.1	22
60	Incorporating student-centered approaches into catchment hydrology teaching: a review and synthesis. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 3263-3278.	1.9	22
61	Secondary dispersal driven by overland flow in drylands: Review and mechanistic model development. <i>Movement Ecology</i> , 2014, 2, 7.	1.3	22
62	Estimating the price (in)elasticity of off-grid electricity demand. <i>Development Engineering</i> , 2018, 3, 12-22.	1.4	22
63	Measurement and simulation of water-use by canola and camelina under cool-season conditions in California. <i>Agricultural Water Management</i> , 2018, 196, 15-23.	2.4	22
64	Estuarine Dispersion from Tidal Trapping: A New Analytical Framework. <i>Estuaries and Coasts</i> , 2011, 34, 45-59.	1.0	21
65	Obtaining the Thermal Structure of Lakes from the Air. <i>Water (Switzerland)</i> , 2015, 7, 6467-6482.	1.2	21
66	A minimal probabilistic model for soil moisture in seasonally dry climates. <i>Water Resources Research</i> , 2016, 52, 1507-1517.	1.7	21
67	Dry season streamflow persistence in seasonal climates. <i>Water Resources Research</i> , 2016, 52, 90-107.	1.7	21
68	TopREML: a topological restricted maximum likelihood approach to regionalize trended runoff signatures in stream networks. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 2925-2942.	1.9	20
69	Forest Vegetation Change and Its Impacts on Soil Water Following 47 Years of Managed Wildfire. <i>Ecosystems</i> , 2020, 23, 1547-1565.	1.6	20
70	Plants as sensors: vegetation response to rainfall predicts root-zone water storage capacity in Mediterranean-type climates. <i>Environmental Research Letters</i> , 2020, 15, 104074.	2.2	20
71	Multiple mechanisms generate Lorentzian and $1/f^{\pm}$ power spectra in daily stream-flow time series. <i>Advances in Water Resources</i> , 2012, 37, 94-103.	1.7	19
72	How much does dry-season fog matter? Quantifying fog contributions to water balance in a coastal California watershed. <i>Hydrological Processes</i> , 2017, 31, 3948-3961.	1.1	19

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73	Emulation of the Saint Venant Equations Enables Rapid and Accurate Predictions of Infiltration and Overland Flow Velocity on Spatially Heterogeneous Surfaces. <i>Water Resources Research</i> , 2019, 55, 7108-7129.	1.7	19
74	Tributary confluences are dynamic thermal refuges for a juvenile salmonid in a warming river network. <i>River Research and Applications</i> , 2020, 36, 1076-1086.	0.7	19
75	Spatially variable water table recharge and the hillslope hydrologic response: Analytical solutions to the linearized hillslope Boussinesq equation. <i>Water Resources Research</i> , 2014, 50, 8515-8530.	1.7	18
76	Soil moisture influences on Sierra Nevada dead fuel moisture content and fire risks. <i>Forest Ecology and Management</i> , 2021, 496, 119379.	1.4	17
77	Addressing rainfall data selection uncertainty using connections between rainfall and streamflow. <i>Scientific Reports</i> , 2017, 7, 219.	1.6	16
78	Prediction of annual runoff in ungauged basins. , 2013, , 70-101.		14
79	Bridge to the future: Important lessons from 20 years of ecosystem observations made by the OzFlux network. <i>Global Change Biology</i> , 2022, 28, 3489-3514.	4.2	14
80	Spiral and Rotor Patterns Produced by Fairy Ring Fungi. <i>PLoS ONE</i> , 2016, 11, e0149254.	1.1	13
81	Hydrological benefits of restoring wildfire regimes in the Sierra Nevada persist in a warming climate. <i>Journal of Hydrology</i> , 2021, 593, 125808.	2.3	13
82	Spatial characterization of long-term hydrological change in the Arkavathy watershed adjacent to Bangalore, India. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 595-610.	1.9	11
83	A MODIS-based scalable remote sensing method to estimate sowing and harvest dates of soybean crops in Mato Grosso, Brazil. <i>Heliyon</i> , 2021, 7, e07436.	1.4	11
84	Spatial organization of vegetation arising from non-local excitation with local inhibition in tropical rainforests. <i>Physica D: Nonlinear Phenomena</i> , 2009, 238, 1061-1067.	1.3	10
85	Dynamical behaviour of superconducting microresonators with readout-power heating. <i>Superconductor Science and Technology</i> , 2013, 26, 095009.	1.8	10
86	A Stochastic Water Balance Framework for Lowland Watersheds. <i>Water Resources Research</i> , 2017, 53, 9564-9579.	1.7	10
87	Robot-Assisted Measurement for Hydrologic Understanding in Data Sparse Regions. <i>Water (Switzerland)</i> , 2017, 9, 494.	1.2	10
88	Resistance Formulations in Shallow Overland Flow Along a Hillslope Covered With Patchy Vegetation. <i>Water Resources Research</i> , 2020, 56, e2020WR027194.	1.7	10
89	Quantifying the Uncertainty Created by Non-transferable Model Calibrations Across Climate and Land Cover Scenarios: A Case Study With SWMM. <i>Water Resources Research</i> , 2022, 58, .	1.7	10
90	A Porous Convection Model for Grass Patterns. <i>American Naturalist</i> , 2010, 175, E10-E15.	1.0	9

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91	Inferring ecosystem parameters from observation of vegetation patterns. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	9
92	Stochastic modeling of interannual variation of hydrologic variables. <i>Geophysical Research Letters</i> , 2017, 44, 7285-7294.	1.5	9
93	Evaluating definitions of salmonid thermal refugia using in situ measurements in the Eel River, Northern California. <i>Ecohydrology</i> , 2019, 12, e2101.	1.1	9
94	A process-based approach to attribution of historical streamflow decline in a data-scarce and human-dominated watershed. <i>Hydrological Processes</i> , 2020, 34, 1981-1995.	1.1	9
95	A Value-Based Model Selection Approach for Environmental Random Variables. <i>Water Resources Research</i> , 2019, 55, 270-283.	1.7	7
96	Quantifying Shallow Overland Flow Patterns Under Laboratory Simulations Using Thermal and LiDAR Imagery. <i>Water Resources Research</i> , 2021, 57, e2020WR028857.	1.7	7
97	Hydraulic determinism as a constraint on the evolution of organisms and ecosystems. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2012, 50, 547-557.	0.7	6
98	Sensitivity of dryland vegetation patterns to storm characteristics. <i>Ecohydrology</i> , 2021, 14, e2269.	1.1	5
99	Modeling identifies optimal fall planting times and irrigation requirements for canola and camelina at locations across California. <i>California Agriculture</i> , 2017, 71, 214-220.	0.5	5
100	Reconstructing Early Hydrologic Change in the California Delta and its Watersheds. <i>Water Resources Research</i> , 2018, 54, 7767-7790.	1.7	4
101	Analytical solutions to runoff on hillslopes with curvature: numerical and laboratory verification. <i>Hydrological Processes</i> , 2020, 34, 4640-4659.	1.1	4
102	Freeze-thaw processes degrade post-fire water repellency in wet soils. <i>Hydrological Processes</i> , 2020, 34, 5229-5241.	1.1	4
103	Detecting the short term impact of soil and water conservation practices using stage as a proxy for discharge—A case study from the Tana sub-basin, Ethiopia. <i>Land Degradation and Development</i> , 2021, 32, 867-880.	1.8	4
104	Saturation excess overland flow accelerates the spread of a generalist soil-borne pathogen. <i>Journal of Hydrology</i> , 2021, 593, 125821.	2.3	4
105	Intra-specific Variability in Plant Hydraulic Parameters Inferred From Model Inversion of Sap Flux Data. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2022, 127, .	1.3	4
106	Correction: Secondary dispersal driven by overland flow in drylands: Review and mechanistic model development. <i>Movement Ecology</i> , 2014, 2, 14.	1.3	3
107	Human Impacts on Stream Hydrology and Water Quality. , 2016, , 441-490.		3
108	Design for resilience in coupled industrial-ecological systems: Biofuels industry as a case study. , 2011, , .		2

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109	Undesirable outcomes in seasonally dry forests. <i>Frontiers in Ecology and the Environment</i> , 2021, 19, 87-88.	1.9	1
110	Rational Method Time of Concentration Can Underestimate Peak Discharge for Hillslopes. <i>Journal of Hydraulic Engineering</i> , 2021, 147, .	0.7	1
111	Arc Hydro Hillslope and Critical Duration: New tools for hillslope-scale runoff analysis. <i>Environmental Modelling and Software</i> , 2022, 153, 105408.	1.9	1
112	Local properties of patterned vegetation: quantifying endogenous and exogenous effects. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20120359.	1.6	0
113	Crusts and seals: Structural. , 2022, , .		0
114	Recalibration of existing pedotransfer functions to estimate soil bulk density at a regional scale. <i>European Journal of Soil Science</i> , 0, , .	1.8	0