

Steve W Lyon

List of Publications by Year in descending order

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Version: 2024-02-01

110
papers

4,359
citations

87723

38
h-index

123241

61
g-index

112
all docs

112
docs citations

112
times ranked

5161
citing authors

#	ARTICLE	IF	CITATIONS
1	On the Potential of Biochar Soil Amendments as a Sustainable Water Management Strategy. Sustainability, 2022, 14, 7026.	1.6	3
2	Stable isotopes of water and specific conductance reveal complimentary information on streamflow generation in snowmelt-dominated, seasonally arid watersheds. Journal of Hydrology, 2021, 596, 126075.	2.3	11
3	Drone-Based Hyperspectral and Thermal Imagery for Quantifying Upland Rice Productivity and Water Use Efficiency after Biochar Application. Remote Sensing, 2021, 13, 1866.	1.8	10
4	Storage-Discharge Relationships under Forest Cover Change in Ethiopian Highlands. Water (Switzerland), 2021, 13, 2310.	1.2	0
5	Tile drainage causes flashy streamflow response in Ohio watersheds. Hydrological Processes, 2021, 35, e14326.	1.1	17
6	Specialty crop retention reservoir performance and design considerations to secure quality water and mitigate non-point source runoff. Journal of Cleaner Production, 2021, 321, 128925.	4.6	2
7	Tile Drainage Increases Total Runoff and Phosphorus Export During Wet Years in the Western Lake Erie Basin. Frontiers in Water, 2021, 3, .	1.0	9
8	On using initial monitoring data to communicate restoration potentials and limitations. Applied Environmental Education and Communication, 2020, 19, 287-302.	0.6	2
9	Quantifying contributions of snowmelt water to streamflow using graphical and chemical hydrograph separation. Hydrological Processes, 2020, 34, 5606-5623.	1.1	5
10	Defining a Topographic Index Threshold to Delineate Hydrologically Sensitive Areas for Water Resources Planning and Management. Water Resources Management, 2020, 34, 3675-3688.	1.9	5
11	Increasing non-linearity of the storage-discharge relationship in Arctic catchments. Hydrological Processes, 2020, 34, 3894-3909.	1.1	16
12	Hydro-climatic controls explain variations in catchment-scale nitrogen use efficiency. Environmental Research Letters, 2020, 15, 094006.	2.2	5
13	Soil Carbon, Nitrogen and Phosphorus Contents along a Gradient of Agricultural Intensity in the Kilombero Valley, Tanzania. Land, 2020, 9, 121.	1.2	7
14	Impacts of multi-purpose reservoir construction, land-use change and climate change on runoff characteristics in the Poyang Lake basin, China. Journal of Hydrology: Regional Studies, 2020, 29, 100694.	1.0	18
15	Understanding coastal wetland conditions and futures by closing their hydrologic balance: the case of the Gialova lagoon, Greece. Hydrology and Earth System Sciences, 2020, 24, 3557-3571.	1.9	10
16	Mojito, Anyone? An Exploration of Low-Tech Plant Water Extraction Methods for Isotopic Analysis Using Locally-Sourced Materials. Frontiers in Earth Science, 2019, 7, .	0.8	22
17	Synergy of Satellite, In Situ and Modelled Data for Addressing the Scarcity of Water Quality Information for Eutrophication Assessment and Monitoring of Swedish Coastal Waters. Remote Sensing, 2019, 11, 2051.	1.8	12
18	Do alternative irrigation strategies for rice cultivation decrease water footprints at the cost of long-term soil health?. Environmental Research Letters, 2019, 14, 074011.	2.2	30

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19	Comparing Remotely-Sensed Surface Energy Balance Evapotranspiration Estimates in Heterogeneous and Data-Limited Regions: A Case Study of Tanzania's Kilombero Valley. <i>Remote Sensing</i> , 2019, 11, 1289.	1.8	23
20	Role-play simulations as an aid to achieve complex learning outcomes in hydrological science. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 2369-2378.	1.9	3
21	Soil frost effects on streamflow recessions in a subarctic catchment. <i>Hydrological Processes</i> , 2019, 33, 1304-1316.	1.1	17
22	Soda Bottle Science – Citizen Science Monsoon Precipitation Monitoring in Nepal. <i>Frontiers in Earth Science</i> , 2019, 7, .	0.8	28
23	Assessment of Water Quality Across Irrigation Schemes: A Case Study of Wetland Agriculture Impacts in Kilombero Valley, Tanzania. <i>Water (Switzerland)</i> , 2019, 11, 671.	1.2	26
24	Improving Water Management Education across the Latin America and Caribbean Region. <i>Water (Switzerland)</i> , 2019, 11, 2318.	1.2	5
25	Rapid Stage – Discharge Rating Curve Assessment Using Hydraulic Modeling in an Uncertainty Framework. <i>Water Resources Research</i> , 2019, 55, 9765-9787.	1.7	11
26	Particle tracer transport in a sloping soil lysimeter under periodic, steady state conditions. <i>Journal of Hydrology</i> , 2019, 569, 61-76.	2.3	17
27	Improving agricultural water use efficiency with biochar – A synthesis of biochar effects on water storage and fluxes across scales. <i>Science of the Total Environment</i> , 2019, 657, 853-862.	3.9	94
28	Advancing understanding in data-limited conditions: estimating contributions to streamflow across Tanzania's rapidly developing Kilombero Valley. <i>Hydrological Sciences Journal</i> , 2018, 63, 197-209.	1.2	13
29	Leveraging a Participatory Process for Restoration Return on Investment: The Nature Conservancy's Floodplain Investment Tool. <i>Journal of the American Water Resources Association</i> , 2018, 54, 1285-1301.	1.0	3
30	Estimating uncertainties in hydraulically modelled rating curves for discharge time series assessment. <i>E3S Web of Conferences</i> , 2018, 40, 06013.	0.2	0
31	Lessons learned from monitoring the stable water isotopic variability in precipitation and streamflow across a snow-dominated subarctic catchment. <i>Arctic, Antarctic, and Alpine Research</i> , 2018, 50, .	0.4	9
32	Reviews and syntheses: Carbon use efficiency from organisms to ecosystems – definitions, theories, and empirical evidence. <i>Biogeosciences</i> , 2018, 15, 5929-5949.	1.3	98
33	Modelling impacts of development on water resources in the Huai Sai Bat sub-basin in north-eastern Thailand with a participatory approach. <i>International Journal of Water Resources Development</i> , 2017, 33, 1020-1040.	1.2	4
34	Optimal Wastewater Loading under Conflicting Goals and Technology Limitations in a Riverine System. <i>Water Environment Research</i> , 2017, 89, 211-220.	1.3	3
35	Modeling streamflow from coupled airborne laser scanning and acoustic Doppler current profiler data. <i>Hydrology Research</i> , 2017, 48, 981-996.	1.1	2
36	Flood seasonality across Scandinavia – Evidence of a shifting hydrograph?. <i>Hydrological Processes</i> , 2017, 31, 4354-4370.	1.1	19

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37	Wetlands as large-scale nature-based solutions: Status and challenges for research, engineering and management. <i>Ecological Engineering</i> , 2017, 108, 489-497.	1.6	217
38	Assessing hydrologic changes across the Lower Mekong Basin. <i>Journal of Hydrology: Regional Studies</i> , 2017, 12, 303-314.	1.0	39
39	Natural Hazard Susceptibility Assessment for Road Planning Using Spatial Multi-Criteria Analysis. <i>Environmental Management</i> , 2017, 60, 823-851.	1.2	35
40	Selecting Sustainability Indicators for Small to Medium Sized Urban Water Systems Using Fuzzy ELECTRE. <i>Water Environment Research</i> , 2017, 89, 238-249.	1.3	26
41	Utilization of Global Precipitation Datasets in Data Limited Regions: A Case Study of Kilombero Valley, Tanzania. <i>Atmosphere</i> , 2017, 8, 246.	1.0	10
42	Estimating Aquifer Transmissivity Using the Recession-Curve-Displacement Method in Tanzania's Kilombero Valley. <i>Water (Switzerland)</i> , 2017, 9, 948.	1.2	6
43	Streamflow recession patterns can help unravel the role of climate and humans in landscape co-evolution. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 1413-1432.	1.9	28
44	Water Balance and Level Change of Lake Babati, Tanzania: Sensitivity to Hydroclimatic Forcings. <i>Water (Switzerland)</i> , 2016, 8, 572.	1.2	12
45	Data-driven Nutrient-landscape Relationships across Regions and Scales. <i>Water Environment Research</i> , 2016, 88, 2023-2031.	1.3	4
46	Thermal effects of groundwater flow through subarctic fens: A case study based on field observations and numerical modeling. <i>Water Resources Research</i> , 2016, 52, 1591-1606.	1.7	79
47	Why monitor carbon in high-alpine streams?. <i>Geografiska Annaler, Series A: Physical Geography</i> , 2016, 98, 237-245.	0.6	2
48	Sensitivity of stream dissolved organic carbon to temperature and discharge: Implications of future climates. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 126-144.	1.3	20
49	Simulating the impact of roads on hydrological responses: examples from Swedish terrain. <i>Hydrology Research</i> , 2016, 47, 767-781.	1.1	7
50	Comparing global precipitation data sets in eastern Africa: a case study of Kilombero Valley, Tanzania. <i>International Journal of Climatology</i> , 2016, 36, 2000-2014.	1.5	87
51	Predicting and communicating flood risk of transport infrastructure based on watershed characteristics. <i>Journal of Environmental Management</i> , 2016, 182, 505-518.	3.8	35
52	Decoupling of carbon dioxide and dissolved organic carbon in boreal headwater streams. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 2630-2651.	1.3	49
53	On the variability of cold region flooding. <i>Journal of Hydrology</i> , 2016, 534, 669-679.	2.3	28
54	Interpreting characteristic drainage timescale variability across Kilombero Valley, Tanzania. <i>Hydrological Processes</i> , 2015, 29, 1912-1924.	1.1	27

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55	Using concurrent DNA tracer injections to infer glacial flow pathways. <i>Hydrological Processes</i> , 2015, 29, 5257-5274.	1.1	38
56	Can Low-Resolution Airborne Laser Scanning Data Be Used to Model Stream Rating Curves?. <i>Water (Switzerland)</i> , 2015, 7, 1324-1339.	1.2	7
57	Interacting effects of change in climate, human population, land use, and water use on biodiversity and ecosystem services. <i>Ecology and Society</i> , 2015, 20, .	1.0	43
58	A Cost-Effective Laser Scanning Method for Mapping Stream Channel Geometry and Roughness. <i>Journal of the American Water Resources Association</i> , 2015, 51, 1211-1220.	1.0	7
59	Seasonal and Regional Patterns in Performance for a Baltic Sea Drainage Basin Hydrologic Model. <i>Journal of the American Water Resources Association</i> , 2015, 51, 550-566.	1.0	7
60	Consequences of mixing assumptions for time-variable travel time distributions. <i>Hydrological Processes</i> , 2015, 29, 3460-3474.	1.1	93
61	Modeller subjectivity and calibration impacts on hydrological model applications: An event-based comparison for a road-adjacent catchment in south-east Norway. <i>Science of the Total Environment</i> , 2015, 502, 315-329.	3.9	17
62	Modeling Potential Water Resource Impacts of Mediterranean Tourism in a Changing Climate. <i>Environmental Modeling and Assessment</i> , 2015, 20, 117-128.	1.2	13
63	Temporal Behavior of Lake Size-Distribution in a Thawing Permafrost Landscape in Northwestern Siberia. <i>Remote Sensing</i> , 2014, 6, 621-636.	1.8	59
64	Seasonal Influence of Insolation on Fine-Resolved Air Temperature Variation and Snowmelt. <i>Journal of Applied Meteorology and Climatology</i> , 2014, 53, 323-332.	0.6	7
65	Using Lidar to Advance Critical Zone Science. <i>Eos</i> , 2014, 95, 364-364.	0.1	4
66	On the utilization of hydrological modelling for road drainage design under climate and land use change. <i>Science of the Total Environment</i> , 2014, 475, 97-103.	3.9	28
67	Quantifying the hydrological impact of simulated changes in land use on peak discharge in a small catchment. <i>Science of the Total Environment</i> , 2014, 466-467, 741-754.	3.9	66
68	Future Nutrient Load Scenarios for the Baltic Sea Due to Climate and Lifestyle Changes. <i>Ambio</i> , 2014, 43, 337-351.	2.8	31
69	Exploring hydroclimatic change disparity via the Budyko framework. <i>Hydrological Processes</i> , 2014, 28, 4110-4118.	1.1	63
70	A method for mapping flood hazard along roads. <i>Journal of Environmental Management</i> , 2014, 133, 69-77.	3.8	61
71	Societal, land cover and climatic controls on river nutrient flows into the Baltic Sea. <i>Journal of Hydrology: Regional Studies</i> , 2014, 1, 44-56.	1.0	18
72	Effects of Different Retention Parameter Estimation Methods on the Prediction of Surface Runoff Using the SCS Curve Number Method. <i>Water Resources Management</i> , 2014, 28, 3241-3254.	1.9	27

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73	Isotopic investigation of runoff generation in a glacierized catchment in northern Sweden. <i>Hydrological Processes</i> , 2014, 28, 1383-1398.	1.1	58
74	Multimethod assessment of evapotranspiration shifts due to non-irrigated agricultural development in Sweden. <i>Journal of Hydrology</i> , 2013, 484, 55-62.	2.3	49
75	Spatiotemporal variations of $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ in subarctic streams in northern Sweden. <i>Global Biogeochemical Cycles</i> , 2013, 27, 176-186.	1.9	28
76	Using streamflow characteristics to explore permafrost thawing in northern Swedish catchments. <i>Hydrogeology Journal</i> , 2013, 21, 121-131.	0.9	56
77	Data-driven regionalization of river discharges and emergent land cover–evapotranspiration relationships across Sweden. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 2576-2587.	1.2	53
78	The importance of hydraulic groundwater theory in catchment hydrology: The legacy of Wilfried Brutsaert and Jean-Yves Parlange. <i>Water Resources Research</i> , 2013, 49, 5099-5116.	1.7	114
79	Early melt season snowpack isotopic evolution in the Tarfala valley, northern Sweden. <i>Annals of Glaciology</i> , 2013, 54, 149-156.	2.8	39
80	Separating physical and meteorological controls of variable transit times in zero-order catchments. <i>Water Resources Research</i> , 2013, 49, 7644-7657.	1.7	88
81	Riparian zone hydrology and soil water total organic carbon (TOC): implications for spatial variability and upscaling of lateral riparian TOC exports. <i>Biogeosciences</i> , 2012, 9, 3901-3916.	1.3	121
82	The master transit time distribution of variable flow systems. <i>Water Resources Research</i> , 2012, 48, .	1.7	135
83	Specific discharge variability in a boreal landscape. <i>Water Resources Research</i> , 2012, 48, .	1.7	56
84	The relationship between land use and water. <i>Eos</i> , 2012, 93, 259-259.	0.1	5
85	Thermokarst lake, hydrological flow and water balance indicators of permafrost change in Western Siberia. <i>Journal of Hydrology</i> , 2012, 464-465, 459-466.	2.3	130
86	Modelling rating curves using remotely sensed LiDAR data. <i>Hydrological Processes</i> , 2012, 26, 1427-1434.	1.1	26
87	Dissecting the variable source area concept – Subsurface flow pathways and water mixing processes in a hillslope. <i>Journal of Hydrology</i> , 2012, 420-421, 125-141.	2.3	60
88	Variability of groundwater levels and total organic carbon in the riparian zone of a boreal catchment. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	42
89	Problem-Based Learning and Assessment in Hydrology Courses: Can Non-Traditional Assessment Better Reflect Intended Learning Outcomes?. <i>Journal of Natural Resources and Life Sciences Education</i> , 2011, 40, 199-205.	0.3	16
90	Non-isothermal, three-phase simulations of near-surface flows in a model permafrost system under seasonal variability and climate change. <i>Journal of Hydrology</i> , 2011, 403, 352-359.	2.3	83

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91	Controls on snowmelt water mean transit times in northern boreal catchments. <i>Hydrological Processes</i> , 2010, 24, 1672-1684.	1.1	62
92	How old is streamwater? Open questions in catchment transit time conceptualization, modelling and analysis. <i>Hydrological Processes</i> , 2010, 24, 1745-1754.	1.1	276
93	Changes in Catchment Scale Recession Flow Properties in Response to Permafrost Thawing in the Yukon River Basin. <i>International Journal of Climatology</i> , 2010, 30, 2138-2145.	1.5	94
94	The Hydrological Effects of Lateral Preferential Flow Paths in a Glaciated Watershed in the Northeastern USA. <i>Vadose Zone Journal</i> , 2010, 9, 397-414.	1.3	24
95	Development and application of a catchment similarity index for subsurface flow. <i>Water Resources Research</i> , 2010, 46, .	1.7	19
96	Multicriteria design of rain gauge networks for flash flood prediction in semiarid catchments with complex terrain. <i>Water Resources Research</i> , 2010, 46, .	1.7	64
97	Using landscape characteristics to define an adjusted distance metric for improving kriging interpolations. <i>International Journal of Geographical Information Science</i> , 2010, 24, 723-740.	2.2	20
98	Estimation of permafrost thawing rates in a sub-arctic catchment using recession flow analysis. <i>Hydrology and Earth System Sciences</i> , 2009, 13, 595-604.	1.9	101
99	A tale of two isotopes: differences in hydrograph separation for a runoff event when using $\delta^{18}\text{O}$ versus $\delta^2\text{H}$. <i>Hydrological Processes</i> , 2009, 23, 2095-2101.	1.1	74
100	Modelling variable source area dynamics in a CEAP watershed. <i>Ecohydrology</i> , 2009, 2, 337-349.	1.1	28
101	Spatial distribution and frequency of precipitation during an extreme event: July 2006 mesoscale convective complexes and floods in southeastern Arizona. <i>Water Resources Research</i> , 2009, 45, .	1.7	29
102	On the role of aspect to quantify water transit times in small mountainous catchments. <i>Water Resources Research</i> , 2009, 45, .	1.7	103
103	Monitoring the timing of snowmelt and the initiation of streamflow using a distributed network of temperature/light sensors. <i>Ecohydrology</i> , 2008, 1, 215-224.	1.1	22
104	Characterizing the response of a catchment to an extreme rainfall event using hydrometric and isotopic data. <i>Water Resources Research</i> , 2008, 44, .	1.7	60
105	Impact of recent extreme Arizona storms. <i>Eos</i> , 2007, 88, 191-193.	0.1	18
106	Internet mapping tools make scientific applications easy. <i>Eos</i> , 2006, 87, 386.	0.1	3
107	THE IMPACT OF RUNOFF GENERATION MECHANISMS ON THE LOCATION OF CRITICAL SOURCE AREAS. <i>Journal of the American Water Resources Association</i> , 2006, 42, 793-804.	1.0	43
108	Defining probability of saturation with indicator kriging on hard and soft data. <i>Advances in Water Resources</i> , 2006, 29, 181-193.	1.7	47

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109	Identifying hydrologically sensitive areas: Bridging the gap between science and application. Journal of Environmental Management, 2006, 78, 63-76.	3.8	115
110	Using a topographic index to distribute variable source area runoff predicted with the SCS curve-number equation. Hydrological Processes, 2004, 18, 2757-2771.	1.1	138