Brian L Mcglynn

List of Publications by Year
in descending order

98 papers	6,937 citations	66234 42 h-index	62479 80 g-index
103 all docs	103 docs citations	103 times ranked	6012 citing authors

#	Article	IF	Citations
1	The Maimai <scp>M8</scp> experimental catchment database: Forty years of processâ€based research on steep, wet hillslopes. Hydrological Processes, 2021, 35, e14112.	1.1	4
2	Mountaintop mining legacies constrain ecological, hydrological and biogeochemical recovery trajectories. Environmental Research Letters, 2021, 16, 075004.	2.2	7
3	Soil Moisture Responses to Rainfall: Implications for Runoff Generation. Water Resources Research, 2021, 57, e2020WR028827.	1.7	38
4	Temporally Variable Stream Width and Surface Area Distributions in a Headwater Catchment. Water Resources Research, 2019, 55, 7166-7181.	1.7	17
5	From Points to Patterns: Using Groundwater Time Series Clustering to Investigate Subsurface Hydrological Connectivity and Runoff Source Area Dynamics. Water Resources Research, 2019, 55, 5784-5806.	1.7	34
6	Lateral, Vertical, and Longitudinal Source Area Connectivity Drive Runoff and Carbon Export Across Watershed Scales. Water Resources Research, 2018, 54, 1576-1598.	1.7	53
7	Hydrologic and biogeochemical drivers of dissolved organic carbon and nitrate uptake in a headwater stream network. Biogeochemistry, 2018, 138, 23-48.	1.7	19
8	Typecasting catchments: Classification, directionality, and the pursuit of universality. Advances in Water Resources, 2018, 112, 245-253.	1.7	8
9	Landscape analysis of soil methane flux across complex terrain. Biogeosciences, 2018, 15, 3143-3167.	1.3	22
10	The Relative Influence of Storm and Landscape Characteristics on Shallow Groundwater Responses in Forested Headwater Catchments. Water Resources Research, 2018, 54, 9883-9900.	1.7	13
11	Nested Scales of Spatial and Temporal Variability of Soil Water Content Across a Semiarid Montane Catchment. Water Resources Research, 2018, 54, 7960-7980.	1.7	20
12	Pyrite Oxidation Drives Exceptionally High Weathering Rates and Geologic CO₂ Release in Mountaintopâ€Mined Landscapes. Global Biogeochemical Cycles, 2018, 32, 1182-1194.	1.9	43
13	A software tool to assess uncertainty in transient-storage model parameters using Monte Carlo simulations. Freshwater Science, 2017, 36, 195-217.	0.9	27
14	Groundwater similarity across a watershed derived from timeâ€warped and flowâ€corrected time series. Water Resources Research, 2017, 53, 3921-3940.	1.7	26
15	Ephemeral and intermittent runoff generation processes in a low relief, highly weathered catchment. Water Resources Research, 2017, 53, 7055-7077.	1.7	74
16	Colimitation and the coupling of N and P uptake kinetics in oligotrophic mountain streams. Biogeochemistry, 2017, 132, 165-184.	1.7	14
17	Timeâ€lapse animation of hillslope groundwater dynamics details eventâ€based and seasonal bidirectional streamâ€“groundwater gradients. Hydrological Processes, 2017, 31, 1983-1985.	1.1	5
18	Creating a More Perennial Problem? Mountaintop Removal Coal Mining Enhances and Sustains Saline Baseflows of Appalachian Watersheds. Environmental Science & Technology, 2017, 51, 8324-8334.	4.6	43

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19	Bidirectional streamâ€“groundwater flow in response to ephemeral and intermittent streamflow and groundwater seasonality. Hydrological Processes, 2017, 31, 3871-3880.	1.1	36
20	Complex terrain influences ecosystem carbon responses to temperature and precipitation. Global Biogeochemical Cycles, 2017, 31, 1306-1317.	1.9	15
21	A nurse-led multidisciplinary team approach in urology-oncology: Addressing the new cancer strategy. Journal of Clinical Urology, 2017, 10, 449-456.	0.1	3
22	Characterizing and reducing equifinality by constraining a distributed catchment model with regional signatures, local observations, and process understanding. Hydrology and Earth System Sciences, 2017, 21, 3325-3352.	1.9	49
23	The impacts of mountain pine beetle disturbance on the energy balance of snow during the melt period. Hydrological Processes, 2016, 30, 588-602.	1.1	11
24	Downstream Dissipation of Storm Flow Heat Pulses: A Case Study and its Landscapeâ€Level Implications. Journal of the American Water Resources Association, 2016, 52, 281-297.	1.0	26
25	Watershed structural influences on the distributions of stream network water and solute travel times under baseflow conditions. Hydrological Processes, 2016, 30, 2671-2685.	1.1	22
26	Diagnostic calibration and crossâ€catchment transferability of a simple processâ€consistent hydrologic model. Hydrological Processes, 2016, 30, 5027-5038.	1.1	9
27	Variability in isotopic composition of base flow in two headwater streams of the southern Appalachians. Water Resources Research, 2016, 52, 4264-4279.	1.7	19
28	Spatiotemporal processes that contribute to hydrologic exchange between hillslopes, valley bottoms, and streams. Water Resources Research, 2016, 52, 4628-4645.	1.7	35
29	The influence of an inâ€network lake on the timing, form, and magnitude of downstream dissolved organic carbon and nutrient flux. Water Resources Research, 2016, 52, 8668-8684.	1.7	14
30	A Comparison of Methods Reveals that Enhanced Diffusion Helps Explain Cold-Season Soil CO2 Efflux in a Lodgepole Pine Ecosystem. Cold Regions Science and Technology, 2016, 121, 16-24.	1.6	10
31	Watershed memory at the <scp>C</scp>oweeta <scp>H</scp>ydrologic <scp>L</scp>aboratory: The effect of past precipitation and storage on hydrologic response. Water Resources Research, 2016, 52, 1673-1695.	1.7	54
32	Deep Impact: Effects of Mountaintop Mining on Surface Topography, Bedrock Structure, and Downstream Waters. Environmental Science & Technology, 2016, 50, 2064-2074.	4.6	82
33	The spatial and temporal evolution of contributing areas. Water Resources Research, 2015, 51, 4550-4573.	1.7	74
34	Water's Way at Sleepers River watershed â€“ revisiting flow generation in a postâ€glacial landscape, Vermont USA. Hydrological Processes, 2015, 29, 3447-3459.	1.1	53
35	Modelâ€based analysis of the influence of catchment properties on hydrologic partitioning across five mountain headwater subcatchments. Water Resources Research, 2015, 51, 4109-4136.	1.7	34
36	Variations in Streamflow Response to Large Hurricane-Season Storms in a Southeastern U.S. Watershed. Journal of Hydrometeorology, 2015, 16, 55-69.	0.7	32

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37	Landâ€“atmosphere carbon and water flux relationships to vapor pressure deficit, soil moisture, and stream flow. Agricultural and Forest Meteorology, 2015, 208, 108-117.	1.9	28
38	The river as a chemostat: fresh perspectives on dissolved organic matter flowing down the river continuum. Canadian Journal of Fisheries and Aquatic Sciences, 2015, 72, 1272-1285.	0.7	242
39	Landscape Position Influences Microbial Composition and Function via Redistribution of Soil Water across a Watershed. Applied and Environmental Microbiology, 2015, 81, 8457-8468.	1.4	22
40	Lateral inflows, streamâ€groundwater exchange, and network geometry influence stream water composition. Water Resources Research, 2014, 50, 4603-4623.	1.7	34
41	A service evaluation describing a nurse-led prostate cancer service in NHS, Ayrshire and Arran. International Journal of Urological Nursing, 2014, 8, 166-180.	0.1	11
42	ESTIMATING THERMAL REGIMES OF BULL TROUT AND ASSESSING THE POTENTIAL EFFECTS OF CLIMATE WARMING ON CRITICAL HABITATS. River Research and Applications, 2014, 30, 204-216.	0.7	68
43	A simple framework to estimate distributed soil temperature from discrete air temperature measurements in dataâ€scarce regions. Journal of Geophysical Research D: Atmospheres, 2014, 119, 407-417.	1.2	31
44	Vegetation and topographic influences on the connectivity of shallow groundwater between hillslopes and streams. Ecohydrology, 2014, 7, 887-895.	1.1	46
45	Merging perspectives in the catchment sciences: the US-Japan Joint Seminar on catchment hydrology and forest biogeochemistry. Hydrological Processes, 2014, 28, 2878-2880.	1.1	1
46	Calibrating hydrologic models in flow-corrected time. Water Resources Research, 2014, 50, 748-753.	1.7	4
47	Ecohydrology of an outbreak: mountain pine beetle impacts trees in drier landscape positions first. Ecohydrology, 2013, 6, 444-454.	1.1	46
48	Variations in surface water-ground water interactions along a headwater mountain stream: Comparisons between transient storage and water balance analyses. Water Resources Research, 2013, 49, 3359-3374.	1.7	71
49	A Beta Regression Model for Improved Solar Radiation Predictions. Journal of Applied Meteorology and Climatology, 2013, 52, 1923-1938.	0.6	9
50	Do transient storage parameters directly scale in longer, combined stream reaches? Reach length dependence of transient storage interpretations. Journal of Hydrology, 2013, 483, 16-25.	2.3	28
51	Nitrogen production from geochemical weathering of rocks in southwest Montana, USA. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 1068-1078.	1.3	15
52	Intrastream variability in solute transport: Hydrologic and geomorphic controls on solute retention. Journal of Geophysical Research F: Earth Surface, 2013, 118, 413-422.	1.0	19
53	A data acquisition framework for runoff prediction in ungauged basins. , 2013, , 29-52.		11
54	Using field data to inform and evaluate a new model of catchment hydrologic connectivity. Water Resources Research, 2013, 49, 6834-6846.	1.7	30

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55	Land use/land cover and scale influences on inâ€stream nitrogen uptake kinetics. Journal of Geophysical Research, 2012, 117, .	3.3	21
56	Exploring changes in the spatial distribution of stream baseflow generation during a seasonal recession. Water Resources Research, 2012, 48, .	1.7	73
57	Complex terrain leads to bidirectional responses of soil respiration to interâ€annual water availability. Global Change Biology, 2012, 18, 749-756.	4.2	40
58	Hydrologic response to channel reconfiguration on Silver Bow Creek, Montana. Journal of Hydrology, 2012, 438-439, 125-136.	2.3	25
59	Active surveillance for prostate cancer: Scottish experience.. Journal of Clinical Oncology, 2012, 30, 167-167.	0.8	0
60	Quantifying watershed sensitivity to spatially variable N loading and the relative importance of watershed N retention mechanisms. Water Resources Research, 2011, 47, .	1.7	28
61	A watershedâ€scale assessment of a process soil CO₂ production and efflux model. Water Resources Research, 2011, 47, .	1.7	26
62	Hierarchical controls on runoff generation: Topographically driven hydrologic connectivity, geology, and vegetation. Water Resources Research, 2011, 47, .	1.7	227
63	Streamâ€groundwater exchange and hydrologic turnover at the network scale. Water Resources Research, 2011, 47, .	1.7	58
64	Landscape structure and climate influences on hydrologic response. Water Resources Research, 2011, 47, .	1.7	76
65	On the spatial heterogeneity of net ecosystem productivity in complex landscapes. Ecosphere, 2011, 2, art86.	1.0	22
66	Landscape structure, groundwater dynamics, and soil water content influence soil respiration across riparianâ€“hillslope transitions in the Tenderfoot Creek Experimental Forest, Montana. Hydrological Processes, 2011, 25, 811-827.	1.1	45
67	Terrain-based Predictive Modeling of Riparian Vegetation in a Northern Rocky Mountain Watershed. Wetlands, 2010, 30, 621-633.	0.7	17
68	Variable flushing mechanisms and landscape structure control stream DOC export during snowmelt in a set of nested catchments. Biogeochemistry, 2010, 99, 193-211.	1.7	80
69	An analysis of alternative conceptual models relating hyporheic exchange flow to diel fluctuations in discharge during baseflow recession. Hydrological Processes, 2010, 24, 686-694.	1.1	61
70	Tracer Additions for Spiraling Curve Characterization (TASCC): Quantifying stream nutrient uptake kinetics from ambient to saturation. Limnology and Oceanography: Methods, 2010, 8, 484-498.	1.0	99
71	Separating physical and biological nutrient retention and quantifying uptake kinetics from ambient to saturation in successive mountain stream reaches. Journal of Geophysical Research, 2010, 115, .	3.3	47
72	Hillslope hydrologic connectivity controls riparian groundwater turnover: Implications of catchment structure for riparian buffering and stream water sources. Water Resources Research, 2010, 46, .	1.7	165

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73	Spatial and temporal controls on watershed ecohydrology in the northern Rocky Mountains. Water Resources Research, 2010, 46, .	1.7	50
74	The future of hydrology: An evolving science for a changing world. Water Resources Research, 2010, 46, .	1.7	487
75	Calculating terrain indices along streams: A new method for separating stream sides. Water Resources Research, 2010, 46, .	1.7	22
76	Differential soil respiration responses to changing hydrologic regimes. Water Resources Research, 2009, 45, .	1.7	41
77	Landscape structure control on soil CO₂ efflux variability in complex terrain: Scaling from point observations to watershed scale fluxes. Journal of Geophysical Research, 2009, 114, .	3.3	83
78	Seasonality in spatial variability and influence of land use/land cover and watershed characteristics on stream water nitrate concentrations in a developing watershed in the Rocky Mountain West. Water Resources Research, 2009, 45, .	1.7	50
79	Hydrologic connectivity between landscapes and streams: Transferring reachâ€•and plotâ€scale understanding to the catchment scale. Water Resources Research, 2009, 45, .	1.7	430
80	Channel water balance and exchange with subsurface flow along a mountain headwater stream in Montana, United States. Water Resources Research, 2009, 45, .	1.7	162
81	Variability in soil respiration across riparian-hillslope transitions. Biogeochemistry, 2008, 91, 51-70.	1.7	60
82	Identifying Linkages Between Land Use, Geomorphology, and Aquatic Habitat in a Mixed-Use Watershed. Environmental Management, 2008, 42, 867-876.	1.2	6
83	Interpretation and evaluation of combined measurement techniques for soil CO₂ efflux: Discrete surface chambers and continuous soil CO₂ concentration probes. Journal of Geophysical Research, 2008, 113, .	3.3	54
84	A new triangular multiple flow direction algorithm for computing upslope areas from gridded digital elevation models. Water Resources Research, 2007, 43, .	1.7	275
85	Stream gains and losses across a mountainâ€toâ€valley transition: Impacts on watershed hydrology and stream water chemistry. Water Resources Research, 2007, 43, .	1.7	96
86	Diurnal hysteresis between soil CO₂ and soil temperature is controlled by soil water content. Geophysical Research Letters, 2007, 34, .	1.5	137
87	Flow velocity and the hydrologic behavior of streams during baseflow. Geophysical Research Letters, 2007, 34, .	1.5	57
88	Taking the pulse of hydrology education. Hydrological Processes, 2007, 21, 1789-1792.	1.1	40
89	A stream tracer technique employing ionic tracers and specific conductance data applied to the Maimai catchment, New Zealand. Hydrological Processes, 2005, 19, 2491-2506.	1.1	42
90	The role of topography on catchment-scale water residence time. Water Resources Research, 2005, 41, .	1.7	571

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91	Scale effects on headwater catchment runoff timing, flow sources, and groundwater-streamflow relations. Water Resources Research, 2004, 40, .	1.7	176
92	The development and audit of a nurse-led urology/oncology clinic. Nursing Times, 2004, 100, 54-6.	0.2	0
93	On the relationships between catchment scale and streamwater mean residence time. Hydrological Processes, 2003, 17, 175-181.	1.1	144
94	Distributed assessment of contributing area and riparian buffering along stream networks. Water Resources Research, 2003, 39, .	1.7	147
95	Role of discrete landscape units in controlling catchment dissolved organic carbon dynamics. Water Resources Research, 2003, 39, .	1.7	229
96	Quantifying the relative contributions of riparian and hillslope zones to catchment runoff. Water Resources Research, 2003, 39, .	1.7	269
97	How does rainfall become runoff? A combined tracer and runoff transfer function approach. Water Resources Research, 2003, 39, .	1.7	191
98	A review of the evolving perceptual model of hillslope flowpaths at the Maimai catchments, New Zealand. Journal of Hydrology, 2002, 257, 1-26.	2.3	216