Joseph M Wheaton

List of Publications by Year
in descending order

63 papers	3,735 citations	126858 33 h-index	133188 59 g-index
77 all docs	77 docs citations	77 times ranked	2982 citing authors

#	Article	IF	Citations
1	Accounting for uncertainty in DEMs from repeat topographic surveys: improved sediment budgets. Earth Surface Processes and Landforms, 2010, 35, 136-156.	1.2	474
2	Analyzing high resolution topography for advancing the understanding of mass and energy transfer through landscapes: A review. Earth-Science Reviews, 2015, 148, 174-193.	4.0	251
3	Using Beaver Dams to Restore Incised Stream Ecosystems. BioScience, 2014, 64, 279-290.	2.2	232
4	Geomorphic mapping and taxonomy of fluvial landforms. Geomorphology, 2015, 248, 273-295.	1.1	151
5	Morphodynamic signatures of braiding mechanisms as expressed through change in sediment storage in a gravelâ€bed river. Journal of Geophysical Research F: Earth Surface, 2013, 118, 759-779.	1.0	146
6	Flow convergence routing hypothesis for pool-riffle maintenance in alluvial rivers. Water Resources Research, 2006, 42, .	1.7	137
7	Ecosystem experiment reveals benefits of natural and simulated beaver dams to a threatened population of steelhead (Oncorhynchus mykiss). Scientific Reports, 2016, 6, 28581.	1.6	119
8	An approach for measuring confinement and assessing the influence of valley setting on river forms and processes. Earth Surface Processes and Landforms, 2016, 41, 701-710.	1.2	111
9	Linking geomorphic changes to salmonid habitat at a scale relevant to fish. River Research and Applications, 2010, 26, 469-486.	0.7	101
10	The relationship between particle travel distance and channel morphology: Results from physical models of braided rivers. Journal of Geophysical Research F: Earth Surface, 2015, 120, 55-74.	1.0	101
11	Spawning habitat rehabilitation â€I. Conceptual approach and methods. International Journal of River Basin Management, 2004, 2, 3-20.	1.5	86
12	Error propagation for velocity and shear stress prediction using 2D models for environmental management. Journal of Hydrology, 2006, 328, 227-241.	2.3	79
13	A methodological intercomparison of topographic survey techniques for characterizing wadeable streams and rivers. Geomorphology, 2014, 206, 343-361.	1.1	79
14	Accuracy assessment of aerial photographs acquired using lighterâ€thanâ€air blimps: lowâ€cost tools for mapping river corridors. River Research and Applications, 2009, 25, 985-1000.	0.7	78
15	The Blurred Line between Form and Process: A Comparison of Stream Channel Classification Frameworks. PLoS ONE, 2016, 11, e0150293.	1.1	75
16	Sediment budget for salmonid spawning habitat rehabilitation in a regulated river. Geomorphology, 2006, 76, 207-228.	1.1	74
17	Spawning habitat rehabilitation â€II. Using hypothesis development and testing in design, Mokelumne river, California, U.S.A.. International Journal of River Basin Management, 2004, 2, 21-37.	1.5	73
18	Modeling the capacity of riverscapes to support beaver dams. Geomorphology, 2017, 277, 72-99.	1.1	72

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19	Predicting benefits of spawning-habitat rehabilitation to salmonid (Oncorhynchus spp.) fry production in a regulated California river. Canadian Journal of Fisheries and Aquatic Sciences, 2004, 61, 1433-1446.	0.7	70
20	Alteration of stream temperature by natural and artificial beaver dams. PLoS ONE, 2017, 12, e0176313.	1.1	67
21	Riparian vegetation communities change rapidly following passive restoration at a northern Utah stream. Ecological Engineering, 2013, 58, 371-377.	1.6	55
22	Impacts of beaver dams on hydrologic and temperature regimes in a mountain stream. Hydrology and Earth System Sciences, 2015, 19, 3541-3556.	1.9	55
23	The Scope of Uncertainties in River Restoration. , 0, , 21-39.		48
24	Landscape-scale geomorphic change detection: Quantifying spatially variable uncertainty and circumventing legacy data issues. Geomorphology, 2015, 250, 334-348.	1.1	47
25	The Valley Bottom Extraction Tool (V-BET): A GIS tool for delineating valley bottoms across entire drainage networks. Computers and Geosciences, 2016, 97, 1-14.	2.0	42
26	Lowâ€tech riparian and wet meadow restoration increases vegetation productivity and resilience across semiarid rangelands. Restoration Ecology, 2019, 27, 269-278.	1.4	42
27	Preface: Multiscale Feedbacks in Ecogeomorphology. Geomorphology, 2011, 126, 265-268.	1.1	41
28	Multiscalar model for the determination of spatially explicit riparian vegetation roughness. Journal of Geophysical Research F: Earth Surface, 2013, 118, 65-83.	1.0	40
29	Assessing streamflow sensitivity to temperature increases in the Salmon River Basin, Idaho. Global and Planetary Change, 2012, 88-89, 32-44.	1.6	39
30	To plugâ€in or not to plugâ€in? Geomorphic analysis of rivers using the River Styles Framework in an era of big data acquisition and automation. Wiley Interdisciplinary Reviews: Water, 2019, 6, e1372.	2.8	39
31	Riparian vegetation as an indicator of riparian condition: Detecting departures from historic condition across the North American West. Journal of Environmental Management, 2017, 202, 447-460.	3.8	38
32	Upscaling siteâ€scale ecohydraulic models to inform salmonid populationâ€level life cycle modeling and restoration actions â€" Lessons from the Columbia River Basin. Earth Surface Processes and Landforms, 2018, 43, 21-44.	1.2	37
33	Mapping valley bottom confinement at the network scale. Earth Surface Processes and Landforms, 2019, 44, 1828-1845.	1.2	37
34	Do Beaver Dams Impede the Movement of Trout?. Transactions of the American Fisheries Society, 2013, 142, 1114-1125.	0.6	34
35	Error modeling of DEMs from topographic surveys of rivers using fuzzy inference systems. Water Resources Research, 2016, 52, 1176-1193.	1.7	34
36	Does scientific conjecture accurately describe restoration practice? Insight from an international river restoration survey. Area, 2006, 38, 128-142.	1.0	31

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37	Virtual manipulation of topography to test potential poolâ€“riffle maintenance mechanisms. Geomorphology, 2015, 228, 617-627.	1.1	29
38	Net rate of energy intake predicts reach-level steelhead (<i>Oncorhynchus mykiss</i>) densities in diverse basins from a large monitoring program. Canadian Journal of Fisheries and Aquatic Sciences, 2016, 73, 1081-1091.	0.7	29
39	Rapid surface-water volume estimations in beaver ponds. Hydrology and Earth System Sciences, 2017, 21, 1039-1050.	1.9	29
40	Hydropeaked rivers need attention. Environmental Research Letters, 2021, 16, 021001.	2.2	29
41	Closing a sediment budget for a reconfigured reach of the Provo River, Utah, United States. Water Resources Research, 2012, 48, .	1.7	28
42	Multiâ€scale environmental filters and niche partitioning govern the distributions of riparian vegetation guilds. Ecosphere, 2015, 6, 1-22.	1.0	25
43	Linking models across scales to assess the viability and restoration potential of a threatened population of steelhead (Oncorhynchus mykiss) in the Middle Fork John Day River, Oregon, USA. Ecological Modelling, 2017, 355, 24-38.	1.2	24
44	Adapting Adaptive Management for Testing the Effectiveness of Stream Restoration: An Intensively Monitored Watershed Example. Fisheries, 2016, 41, 84-91.	0.6	20
45	A geomorphic assessment to inform strategic stream restoration planning in the Middle Fork John Day Watershed, Oregon, USA. Journal of Maps, 2017, 13, 369-381.	1.0	19
46	Riparian Vegetation Communities of the American Pacific Northwest are Tied to Multi-Scale Environmental Filters. River Research and Applications, 2015, 31, 1151-1165.	0.7	18
47	Riverscapes as natural infrastructure: Meeting challenges of climate adaptation and ecosystem restoration. Anthropocene, 2022, 38, 100334.	1.6	18
48	Is the PDO or AMO the climate driver of soil moisture in the Salmon River Basin, Idaho?. Global and Planetary Change, 2014, 120, 16-23.	1.6	15
49	Crew variability in topographic surveys for monitoring wadeable streams: a case study from the Columbia River Basin. Earth Surface Processes and Landforms, 2014, 39, 2070-2086.	1.2	15
50	Modelling Eurasian beaver foraging habitat and dam suitability, for predicting the location and number of dams throughout catchments in Great Britain. European Journal of Wildlife Research, 2020, 66, 42.	0.7	14
51	Influence of topographic, geomorphic, and hydrologic variables on beaver dam height and persistence in the intermountain western United States. Earth Surface Processes and Landforms, 2020, 45, 2664-2674.	1.2	13
52	Geomorphic process signatures reshaping subâ€humid Mediterranean badlands: 2. Application to 5â€year dataset. Earth Surface Processes and Landforms, 2020, 45, 1292-1310.	1.2	13
53	Geomorphic process signatures reshaping subâ€humid Mediterranean badlands: 1. Methodological development based on highâ€resolution topography. Earth Surface Processes and Landforms, 2020, 45, 1335-1346.	1.2	12
54	Streamlining Field Data Collection With Mobile Apps. Eos, 2014, 95, 453-454.	0.1	11

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55	Alluvial substrate mapping by automated texture segmentation of recreational-grade side scan sonar imagery. PLoS ONE, 2018, 13, e0194373.	1.1	11
56	Design and monitoring of woody structures and their benefits to juvenile steelhead (<i>Oncorhynchus mykiss</i>) using a net rate of energy intake model. Canadian Journal of Fisheries and Aquatic Sciences, 2017, 74, 727-738.	0.7	10
57	A simple, interactive GIS tool for transforming assumed total station surveys to real world coordinates â€“ the CHaMP transformation tool. Computers and Geosciences, 2012, 42, 28-36.	2.0	9
58	What are the Conditions of Riparian Ecosystems? Identifying Impaired Floodplain Ecosystems across the Western U.S. Using the Riparian Condition Assessment (RCA) Tool. Environmental Management, 2018, 62, 548-570.	1.2	9
59	Modelling braided river morphodynamics using a particle travel length framework. Earth Surface Dynamics, 2019, 7, 247-274.	1.0	9
60	Hydrogeomorphic and Biotic Drivers of Instream Wood Differ Across Sub-basins of the Columbia River Basin, USA. River Research and Applications, 2016, 32, 1302-1315.	0.7	8
61	28 Uncertain restoration of gravel-bed rivers and the role of geomorphology. Developments in Earth Surface Processes, 2007, 11, 739-760.	2.8	4
62	How do we efficiently generate high-resolution hydraulic models at large numbers of riverine reaches?. Computers and Geosciences, 2018, 119, 80-91.	2.0	4
63	Effects of In-Channel Structure on Chinook Salmon Spawning Habitat and Embryo Production. Water (Switzerland), 2022, 14, 83.	1.2	1