Erich T Hester

List of Publications by Year
in descending order

45 papers	1,657 citations	304743 22 h-index	289244 40 g-index
45 all docs	45 docs citations	45 times ranked	1571 citing authors

#	Article	IF	Citations
1	Moving Beyond the Banks: Hyporheic Restoration Is Fundamental to Restoring Ecological Services and Functions of Streams. Environmental Science & Technology, 2010, 44, 1521-1525.	10.0	208
2	Inâ€stream geomorphic structures as drivers of hyporheic exchange. Water Resources Research, 2008, 44, .	4.2	206
3	Human Impacts to River Temperature and Their Effects on Biological Processes: A Quantitative Synthesis1. Journal of the American Water Resources Association, 2011, 47, 571-587.	2.4	141
4	Mixing of surface and groundwater induced by riverbed dunes: Implications for hyporheic zone definitions and pollutant reactions. Water Resources Research, 2013, 49, 5221-5237.	4.2	89
5	The influence of in-stream structures on summer water temperatures via induced hyporheic exchange. Limnology and Oceanography, 2009, 54, 355-367.	3.1	82
6	The importance and challenge of hyporheic mixing. Water Resources Research, 2017, 53, 3565-3575.	4.2	77
7	Assessing and Enhancing Environmental Sustainability: A Conceptual Review. Environmental Science & Technology, 2016, 50, 6830-6845.	10.0	59
8	Hydrologic Effects of Surface Coal Mining in Appalachia (<scp>U.S.</scp>). Journal of the American Water Resources Association, 2015, 51, 1436-1452.	2.4	58
9	A tiered, system-of-systems modeling framework for resolving complex socio-environmental policy issues. Environmental Modelling and Software, 2019, 112, 82-94.	4.5	45
10	Stream and Retention Pond Thermal Response to Heated Summer Runoff From Urban Impervious Surfaces¹. Journal of the American Water Resources Association, 2013, 49, 328-342.	2.4	43
11	Floodplain biogeochemical processing of floodwaters in the Atchafalaya River Basin during the Mississippi River flood of 2011. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 537-546.	3.0	39
12	Macropores as preferential flow paths in meander bends. Hydrological Processes, 2014, 28, 482-495.	2.6	38
13	Effects of inset floodplains and hyporheic exchange induced by in-stream structures on nitrate removal in a headwater stream. Ecological Engineering, 2016, 97, 452-464.	3.6	38
14	Controls on mixingâ€dependent denitrification in hyporheic zones induced by riverbed dunes: A steady state modeling study. Water Resources Research, 2014, 50, 9048-9066.	4.2	37
15	Comparison of effects of inset floodplains and hyporheic exchange induced by inâ€stream structures on solute retention. Water Resources Research, 2014, 50, 6168-6190.	4.2	34
16	Effects of in-stream structures and channel flow rate variation on transient storage. Journal of Hydrology, 2017, 548, 157-169.	5.4	34
17	Hydraulic and thermal effects of inâ€stream structureâ€induced hyporheic exchange across a range of hydraulic conductivities. Water Resources Research, 2014, 50, 4643-4661.	4.2	32
18	Seasonal Variation in Floodplain Biogeochemical Processing in a Restored Headwater Stream. Environmental Science & Technology, 2015, 49, 13190-13198.	10.0	30

#	Article	IF	Citations
19	Perirheic mixing and biogeochemical processing in flowâ€through and backwater floodplain wetlands. Water Resources Research, 2014, 50, 7394-7405.	4.2	28
20	Effect of Surface Water Stage Fluctuation on Mixingâ€Dependent Hyporheic Denitrification in Riverbed Dunes. Water Resources Research, 2019, 55, 4668-4687.	4.2	28
21	Modeling Connectivity of Nonâ€floodplain Wetlands: Insights, Approaches, and Recommendations. Journal of the American Water Resources Association, 2019, 55, 559-577.	2.4	26
22	Comparing reach scale hyporheic exchange and denitrification induced by instream restoration structures and natural streambed morphology. Ecological Engineering, 2018, 115, 105-121.	3.6	23
23	Electrical resistivity imaging of hydrologic flow through surface coal mine valley fills with comparison to other landforms. Hydrological Processes, 2017, 31, 2244-2260.	2.6	22
24	Effects of large wood on floodplain connectivity in a headwater Mid-Atlantic stream. Ecological Engineering, 2018, 118, 134-142.	3.6	22
25	Hyporheic Restoration in Streams and Rivers. Geophysical Monograph Series, 0, , 167-187.	0.1	21
26	Measuring Environmental Sustainability of Water in Watersheds. Environmental Science & Technology, 2013, 47, 130617090430001.	10.0	19
27	The effect of macropores on bi-directional hydrologic exchange between a stream channel and riparian groundwater. Journal of Hydrology, 2015, 529, 830-842.	5.4	19
28	Variability of subsurface structure and infiltration hydrology among surface coal mine valley fills. Science of the Total Environment, 2019, 651, 2648-2661.	8.0	15
29	Preferential Flow in Riparian Groundwater: Gateways for Watershed Solute Transport and Implications for Water Quality Management. Water Resources Research, 2020, 56, e2020WR028186.	4.2	14
30	Vertical surface waterâ€“groundwater exchange processes within a headwater floodplain induced by experimental floods. Hydrological Processes, 2016, 30, 3770-3787.	2.6	13
31	Policy Targeting to Reduce Economic Damages From Land Subsidence. Water Resources Research, 2018, 54, 4401-4416.	4.2	13
32	Effect of Floodplain Restoration on Photolytic Removal of Pharmaceuticals. Environmental Science & Technology, 2020, 54, 3278-3287.	10.0	13
33	Abundance and dimensions of naturally occurring macropores along stream channels and the effects of artificially constructed large macropores on transient storage. Freshwater Science, 2015, 34, 125-138.	1.8	12
34	Parameter uncertainty with flow variation of the one-dimensional solute transport model for small streams using Markov chain Monte Carlo. Journal of Hydrology, 2019, 575, 1145-1154.	5.4	12
35	A cost-effective image processing approach for analyzing the ecohydrology of river corridors. Limnology and Oceanography: Methods, 2016, 14, 359-369.	2.0	11
36	Specific conductanceâ€“stage relationships in Appalachian valley fill streams. Environmental Earth Sciences, 2016, 75, 1.	2.7	11

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37	Filling the Void: The Effect of Stream Bank Soil Pipes on Transient Hyporheic Exchange During a Peak Flow Event. Water Resources Research, 2020, 56, e2019WR025959.	4.2	11
38	Abiotic Mixingâ€Đependent Reaction in a Laboratory Simulated Hyporheic Zone. Water Resources Research, 2020, 56, e2020WR027090.	4.2	9
39	Nitrate removal by watershed-scale hyporheic stream restoration: Modeling approach to estimate effects and patterns at the stream network scale. Ecological Engineering, 2022, 175, 106498.	3.6	6
40	Abundance, distribution, and geometry of naturally occurring streambank soil pipes. Freshwater Science, 2020, 39, 735-751.	1.8	5
41	Pipe Dreams: The Effects of Stream Bank Soil Pipes on Hyporheic Denitrification Caused by a Peak Flow Event. Water Resources Research, 2022, 58, .	4.2	5
42	Hyporheic transverse mixing zones and dispersivity: Laboratory and numerical experiments of hydraulic controls. Journal of Contaminant Hydrology, 2021, 243, 103885.	3.3	4
43	Featured Collection Introduction: The Emerging Science of Aquatic System Connectivity I. Journal of the American Water Resources Association, 2019, 55, 287-293.	2.4	3
44	Human Impacts to River Temperature and Their Effects on Biological Processes: A Quantitative Synthesis1. , 2011, 47, 571.		1
45	Applying a Coupled Hydrologic-Economic Modeling Framework: Evaluating Alternative Options for Reducing Impacts for Downstream Locations in Response to Upstream Development. Sustainability, 2022, 14, 6630.	3.2	1