James B Heffernan

List of Publications by Year
in descending order

74 papers	4,147 citations	126858 33 h-index	118793 62 g-index
77 all docs	77 docs citations	77 times ranked	5069 citing authors

#	Article	IF	Citations
1	RIPARIAN ZONES INCREASE REGIONAL SPECIES RICHNESS BY HARBORING DIFFERENT, NOT MORE, SPECIES. Ecology, 2005, 86, 56-62.	1.5	370
2	Ecological homogenization of urban USA. Frontiers in Ecology and the Environment, 2014, 12, 74-81.	1.9	343
3	Macrosystems ecology: understanding ecological patterns and processes at continental scales. Frontiers in Ecology and the Environment, 2014, 12, 5-14.	1.9	285
4	The metabolic regimes of flowing waters. Limnology and Oceanography, 2018, 63, S99.	1.6	247
5	Assessing the homogenization of urban land management with an application to US residential lawn care. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4432-4437.	3.3	164
6	HORIZONS IN STREAM BIOGEOCHEMISTRY: FLOWPATHS TO PROGRESS. Ecology, 2004, 85, 2369-2379.	1.5	143
7	The influence of dissolved nutrients and particulate organic matter quality on microbial respiration and biomass in a forest stream. Freshwater Biology, 2003, 48, 1925-1937.	1.2	126
8	WETLANDS AS AN ALTERNATIVE STABLE STATE IN DESERT STREAMS. Ecology, 2008, 89, 1261-1271.	1.5	97
9	Morphological characteristics of urban water bodies: mechanisms of change and implications for ecosystem function. Ecological Applications, 2014, 24, 1070-1084.	1.8	94
10	Ecosystem services in managing residential landscapes: priorities, value dimensions, and cross-regional patterns. Urban Ecosystems, 2016, 19, 95-113.	1.1	93
11	Fertilizer Management and Environmental Factors Drive N₂O and NO₃ Losses in Corn: A Metaâ€Analysis. Soil Science Society of America Journal, 2017, 81, 1191-1202.	1.2	91
12	Functional ecomorphology: Feedbacks between form and function in fluvial landscape ecosystems. Geomorphology, 2007, 89, 84-96.	1.1	85
13	Diel phosphorus variation and the stoichiometry of ecosystem metabolism in a large springâ€fed river. Ecological Monographs, 2013, 83, 155-176.	2.4	84
14	Direct and indirect coupling of primary production and diel nitrate dynamics in a subtropical springâ€fed river. Limnology and Oceanography, 2010, 55, 677-688.	1.6	83
15	Continental-scale homogenization of residential lawn plant communities. Landscape and Urban Planning, 2017, 165, 54-63.	3.4	82
16	Convergence of microclimate in residential landscapes across diverse cities in the United States. Landscape Ecology, 2016, 31, 101-117.	1.9	78
17	Direct and indirect coupling of primary production and diel nitrate dynamics in a subtropical spring-fed river. Limnology and Oceanography, 2010, 55, 677-688.	1.6	75
18	Ecological homogenization of residential macrosystems. Nature Ecology and Evolution, 2017, 1, 191.	3.4	69

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19	Homogenization of plant diversity, composition, and structure in North American urban yards. Ecosphere, 2018, 9, e02105.	1.0	68
20	Hydrologic Modification and the Loss of Self-organized Patterning in the Ridgeâ€“Slough Mosaic of the Everglades. Ecosystems, 2010, 13, 813-827.	1.6	65
21	The metabolic regimes of 356 rivers in the United States. Scientific Data, 2018, 5, 180292.	2.4	65
22	Light and flow regimes regulate the metabolism of rivers. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	62
23	Algal blooms and the nitrogenâ€enrichment hypothesis in Florida springs: evidence, alternatives, and adaptive management. Ecological Applications, 2010, 20, 816-829.	1.8	61
24	Convergent Surface Water Distributions in U.S. Cities. Ecosystems, 2014, 17, 685-697.	1.6	56
25	Metabolic rhythms in flowing waters: An approach for classifying river productivity regimes. Limnology and Oceanography, 2019, 64, 1835-1851.	1.6	52
26	Denitrification and inference of nitrogen sources in the karstic Floridan Aquifer. Biogeosciences, 2012, 9, 1671-1690.	1.3	51
27	Unintended Consequences of Urbanization for Aquatic Ecosystems: A Case Study from the Arizona Desert. BioScience, 2008, 58, 715-727.	2.2	50
28	Emergent productivity regimes of river networks. Limnology and Oceanography Letters, 2019, 4, 173-181.	1.6	50
29	Hydrologic and biotic influences on nitrate removal in a subtropical springâ€fed river. Limnology and Oceanography, 2010, 55, 249-263.	1.6	47
30	On the multiple ecological roles of water in river networks. Ecosphere, 2013, 4, 1-14.	1.0	45
31	Artificial Aquatic Ecosystems. Water (Switzerland), 2018, 10, 1096.	1.2	42
32	Inference of riverine nitrogen processing from longitudinal and diel variation in dual nitrate isotopes. Journal of Geophysical Research, 2012, 117, .	3.3	41
33	Direct and Indirect Effects of Dissolved Organic Matter Source and Concentration on Denitrification in Northern Florida Rivers. Ecosystems, 2014, 17, 14-28.	1.6	38
34	Designer Ecosystems: Incorporating Design Approaches into Applied Ecology. Annual Review of Environment and Resources, 2015, 40, 419-443.	5.6	36
35	Residential yard management and landscape cover affect urban bird community diversity across the continental USA. Ecological Applications, 2021, 31, e02455.	1.8	35
36	Consequences of a biogeomorphic regime shift for the hyporheic zone of a Sonoran Desert stream. Freshwater Biology, 2008, 53, 1954-1968.	1.2	34

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37	Measuring and interpreting relationships between nutrient supply, demand, and limitation. Freshwater Science, 2018, 37, 448-455.	0.9	34
38	Municipal regulation of residential landscapes across US cities: Patterns and implications for landscape sustainability. Journal of Environmental Management, 2020, 275, 111132.	3.8	34
39	Reciprocal Biotic Control on Hydrology, Nutrient Gradients, and Landform in the Greater Everglades. Critical Reviews in Environmental Science and Technology, 2011, 41, 395-429.	6.6	33
40	Nutrient flux, uptake, and autotrophic limitation in streams and rivers. Freshwater Science, 2014, 33, 85-98.	0.9	33
41	Urban soil carbon and nitrogen converge at a continental scale. Ecological Monographs, 2020, 90, e01401.	2.4	32
42	Plant nitrogen concentration and isotopic composition in residential lawns across seven US cities. Oecologia, 2016, 181, 271-285.	0.9	29
43	Nutrient Limitation and Physiology Mediate the Fine-Scale (De)coupling of Biogeochemical Cycles. American Naturalist, 2014, 184, 384-406.	1.0	27
44	Engineered headwaters can act as sources of dissolved organic matter and nitrogen to urban stream networks. Limnology and Oceanography Letters, 2018, 3, 215-224.	1.6	27
45	Satisfaction, water and fertilizer use in the American residential macrosystem. Environmental Research Letters, 2016, 11, 034004.	2.2	26
46	Nutrient mobilization and processing in Sonoran desert riparian soils following artificial re-wetting. Biogeochemistry, 2004, 70, 117-134.	1.7	25
47	Discharge Competence and Pattern Formation in Peatlands: A Meta-Ecosystem Model of the Everglades Ridge-Slough Landscape. PLoS ONE, 2013, 8, e64174.	1.1	24
48	Evidence of biogeomorphic patterning in a lowâ€relief karst landscape. Earth Surface Processes and Landforms, 2014, 39, 2027-2037.	1.2	22
49	Sediment chemistry of urban stormwater ponds and controls on denitrification. Ecosphere, 2018, 9, e02318.	1.0	22
50	A multi-city comparison of front and backyard differences in plant species diversity and nitrogen cycling in residential landscapes. Landscape and Urban Planning, 2018, 178, 102-111.	3.4	20
51	Ecohydrologic processes and soil thickness feedbacks control limestone-weathering rates in a karst landscape. Chemical Geology, 2019, 527, 118774.	1.4	20
52	Wetland Connectivity Thresholds and Flow Dynamics From Stage Measurements. Water Resources Research, 2019, 55, 6018-6032.	1.7	19
53	Residential household yard care practices along urban-exurban gradients in six climatically-diverse U.S. metropolitan areas. PLoS ONE, 2019, 14, e0222630.	1.1	19
54	Estimating Benthic Light Regimes Improves Predictions of Primary Production and constrains Light-Use Efficiency in Streams and Rivers. Ecosystems, 2021, 24, 825-839.	1.6	18

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55	Hypoxia dynamics and spatial distribution in a low gradient river. Limnology and Oceanography, 2021, 66, 2251-2265.	1.6	15
56	A seasonally dynamic model of light at the stream surface. Freshwater Science, 2021, 40, 286-301.	0.9	14
57	Environmentallyâ€mediated consumer control of algal proliferation in Florida springs. Freshwater Biology, 2014, 59, 2009-2023.	1.2	13
58	Mass balance implies Holocene development of a low-relief karst patterned landscape. Chemical Geology, 2019, 527, 118782.	1.4	13
59	Ecohydrologic feedbacks controlling sizes of cypress wetlands in a patterned karst landscape. Earth Surface Processes and Landforms, 2019, 44, 1178-1191.	1.2	13
60	Land use and topography bend and break fractal rules of water body sizeâ€distributions. Limnology and Oceanography Letters, 2017, 2, 71-80.	1.6	12
61	Initiation and Development of Wetlands in Southern Florida Karst Landscape Associated With Accumulation of Organic Matter and Vegetation Evolution. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 1604-1617.	1.3	12
62	Coastal Wetland Distributions: Delineating Domains of Macroscale Drivers and Local Feedbacks. Ecosystems, 2019, 22, 1256-1270.	1.6	12
63	Bioavailability and compositional changes of dissolved organic matter in urban headwaters. Aquatic Sciences, 2020, 82, 1.	0.6	11
64	Plantâ€“microbe interactions and nitrogen dynamics during wetland establishment in a desert stream. Biogeochemistry, 2012, 107, 379-391.	1.7	10
65	Effects of urbanization on nutrient biogeochemistry of aridland streams. Geophysical Monograph Series, 2004, , 129-146.	0.1	9
66	Climate and lawn management interact to control C4plant distribution in residential lawns across seven U.S. cities. Ecological Applications, 2019, 29, e01884.	1.8	8
67	A Multiscale Approach to Timescale Analysis: Isolating Diel Signals from Solute Concentration Time Series. Environmental Science & Technology, 2021, 55, 12731-12738.	4.6	7
68	Stoichiometry and daily rhythms: experimental evidence shows nutrient limitation decouples N uptake from photosynthesis. Ecology, 2019, 100, e02822.	1.5	6
69	Interactions Between Physical Template and Self-organization Shape Plant Dynamics in a Stream Ecosystem. Ecosystems, 2020, 23, 891-905.	1.6	6
70	How Old Are Marshes on the East Coast, USA? Complex Patterns in Wetland Age Within and Among Regions. Geophysical Research Letters, 2020, 47, e2020GL089415.	1.5	5
71	Stream metabolism heats up. Nature Geoscience, 2018, 11, 384-385.	5.4	3
72	Competition Among Limestone Depressions Leads to Selfâ€Organized Regular Patterning on a Flat Landscape. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2021JF006072.	1.0	2

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73	Nonlinear dynamics, resilience, and regime shifts in aquatic communities and ecosystems: an overview. Limnology and Oceanography, 2022, 67, .	1.6	1
74	Propagation of inflowing urban stormwater pulses through reservoir embayments. Urban Ecosystems, 2022, 25, 1043-1055.	1.1	0