Paul C Hanson

List of Publications by Year
in descending order

86 papers	5,793 citations	71102 41 h-index	79698 73 g-index
95 all docs	95 docs citations	95 times ranked	5762 citing authors

#	Article	IF	Citations
1	Lake metabolism: Relationships with dissolved organic carbon and phosphorus. Limnology and Oceanography, 2003, 48, 1112-1119.	3.1	335
2	Salting our freshwater lakes. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4453-4458.	7.1	314
3	Lake metabolism and the diel oxygen technique: State of the science. Limnology and Oceanography: Methods, 2010, 8, 628-644.	2.0	214
4	Creating and maintaining highâ€performing collaborative research teams: the importance of diversity and interpersonal skills. Frontiers in Ecology and the Environment, 2014, 12, 31-38.	4.0	211
5	Processâ€Guided Deep Learning Predictions of Lake Water Temperature. Water Resources Research, 2019, 55, 9173-9190.	4.2	200
6	Lakeâ€size dependency of wind shear and convection as controls on gas exchange. Geophysical Research Letters, 2012, 39, .	4.0	199
7	Ecosystem respiration: Drivers of daily variability and background respiration in lakes around the globe. Limnology and Oceanography, 2013, 58, 849-866.	3.1	195
8	Controls of Î´¹³Câ€DIC in lakes: Geochemistry, lake metabolism, and morphometry. Limnology and Oceanography, 2004, 49, 1160-1172.	3.1	152
9	Integrating aquatic and terrestrial components to construct a complete carbon budget for a north temperate lake district. Global Change Biology, 2011, 17, 1193-1211.	9.5	151
10	A model of carbon evasion and sedimentation in temperate lakes. Global Change Biology, 2004, 10, 1285-1298.	9.5	149
11	Understanding Regional Change: A Comparison of Two Lake Districts. BioScience, 2007, 57, 323-335.	4.9	129
12	A General Lake Model (GLM 3.0) for linking with high-frequency sensor data from the Global Lake Ecological Observatory Network (GLEON). Geoscientific Model Development, 2019, 12, 473-523.	3.6	125
13	New Eyes on the World: Advanced Sensors for Ecology. BioScience, 2009, 59, 385-397.	4.9	119
14	Water quality data for nationalâ€scale aquatic research: The Water Quality Portal. Water Resources Research, 2017, 53, 1735-1745.	4.2	119
15	CO₂ and CH₄ emissions from streams in a lakeâ€rich landscape: Patterns, controls, and regional significance. Global Biogeochemical Cycles, 2014, 28, 197-210.	4.9	115
16	Determining the probability of cyanobacterial blooms: the application of Bayesian networks in multiple lake systems. Ecological Applications, 2015, 25, 186-199.	3.8	112
17	Staying afloat in the sensor data deluge. Trends in Ecology and Evolution, 2012, 27, 121-129.	8.7	108
18	Small lakes dominate a random sample of regional lake characteristics. Freshwater Biology, 2007, 52, 814-822.	2.4	107

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19	Evaluation of metabolism models for freeâ€water dissolved oxygen methods in lakes. Limnology and Oceanography: Methods, 2008, 6, 454-465.	2.0	104
20	LAGOS-NE: a multi-scaled geospatial and temporal database of lake ecological context and water quality for thousands of US lakes. GigaScience, 2017, 6, 1-22.	6.4	102
21	Simulating 2368 temperate lakes reveals weak coherence in stratification phenology. Ecological Modelling, 2014, 291, 142-150.	2.5	101
22	Small lakes show muted climate change signal in deepwater temperatures. Geophysical Research Letters, 2015, 42, 355-361.	4.0	99
23	Fate of Allochthonous Dissolved Organic Carbon in Lakes: A Quantitative Approach. PLoS ONE, 2011, 6, e21884.	2.5	98
24	A multi-lake comparative analysis of the General Lake Model (GLM): Stress-testing across a global observatory network. Environmental Modelling and Software, 2018, 102, 274-291.	4.5	93
25	LakeMetabolizer: an R package for estimating lake metabolism from free-water oxygen using diverse statistical models. Inland Waters, 2016, 6, 622-636.	2.2	91
26	Gross primary production and respiration differences among littoral and pelagic habitats in northern Wisconsin lakes. Canadian Journal of Fisheries and Aquatic Sciences, 2006, 63, 1130-1141.	1.4	88
27	A community-based framework for aquatic ecosystem models. Hydrobiologia, 2012, 683, 25-34.	2.0	87
28	LAKE DISSOLVED INORGANIC CARBON AND DISSOLVED OXYGEN: CHANGING DRIVERS FROM DAYS TO DECADES. Ecological Monographs, 2006, 76, 343-363.	5.4	82
29	Integrating Landscape Carbon Cycling: Research Needs for Resolving Organic Carbon Budgets of Lakes. Ecosystems, 2015, 18, 363-375.	3.4	81
30	Predicting the resilience and recovery of aquatic systems: A framework for model evolution within environmental observatories. Water Resources Research, 2015, 51, 7023-7043.	4.2	80
31	Spatial heterogeneity strongly affects estimates of ecosystem metabolism in two north temperate lakes. Limnology and Oceanography, 2012, 57, 1689-1700.	3.1	77
32	Depth-integrated, continuous estimates of metabolism in a clear-water lake. Canadian Journal of Fisheries and Aquatic Sciences, 2008, 65, 712-722.	1.4	75
33	Phosphorus speciation in a eutrophic lake by 31P NMR spectroscopy. Water Research, 2014, 62, 229-240.	11.3	73
34	Meteorological drivers of hypolimnetic anoxia in a eutrophic, north temperate lake. Ecological Modelling, 2017, 343, 39-53.	2.5	68
35	THE GLOBAL LAKE ECOLOGICAL OBSERVATORY NETWORK (GLEON): THE EVOLUTION OF GRASSROOTS NETWORK SCIENCE. Limnology and Oceanography Bulletin, 2013, 22, 71-73.	0.4	65
36	A Global Lake Ecological Observatory Network (GLEON) for synthesising highâ€“frequency sensor data for validation of deterministic ecological models. Inland Waters, 2015, 5, 49-56.	2.2	62

#	Article	IF	Citations
37	Building the team for team science. Ecosphere, 2016, 7, e01291.	2.2	62
38	Seasonal dynamics, typhoons and the regulation of lake metabolism in a subtropical humic lake. Freshwater Biology, 2008, 53, 1929-1941.	2.4	56
39	Time-scale dependence in numerical simulations: Assessment of physical, chemical, and biological predictions in a stratified lake at temporal scales of hours to months. Environmental Modelling and Software, 2012, 35, 104-121.	4.5	55
40	Predicting lake surface water phosphorus dynamics using process-guided machine learning. Ecological Modelling, 2020, 430, 109136.	2.5	50
41	Lake thermal structure drives interannual variability in summer anoxia dynamics in a eutrophic lake over 37Âyears. Hydrology and Earth System Sciences, 2021, 25, 1009-1032.	4.9	47
42	Using wavelet analyses to examine variability in phytoplankton seasonal succession and annual periodicity. Journal of Plankton Research, 2016, 38, 27-40.	1.8	46
43	Long-term chloride concentrations in North American and European freshwater lakes. Scientific Data, 2017, 4, 170101.	5.3	43
44	Lakes at Risk of Chloride Contamination. Environmental Science & Technology, 2020, 54, 6639-6650.	10.0	43
45	Carbon and water cycling in lake-rich landscapes: Landscape connections, lake hydrology, and biogeochemistry. Journal of Geophysical Research, 2007, 112, .	3.3	42
46	Quantifying lake allochthonous organic carbon budgets using a simple equilibrium model. Limnology and Oceanography, 2014, 59, 167-181.	3.1	40
47	Networked lake science: how the Global Lake Ecological Observatory Network (GLEON) works to understand, predict, and communicate lake ecosystem response to global change. Inland Waters, 2016, 6, 543-554.	2.2	36
48	Toward a more integrative perspective on carbon metabolism across lentic and lotic inland waters. Limnology and Oceanography Letters, 2018, 3, 57-63.	3.9	36
49	Consequences of gas flux model choice on the interpretation of metabolic balance across 15 lakes. Inland Waters, 2016, 6, 581-592.	2.2	35
50	Filling holes in regional carbon budgets: Predicting peat depth in a north temperate lake district. Journal of Geophysical Research, 2010, 115, .	3.3	33
51	Ecosystem-scale nutrient cycling responses to increasing air temperatures vary with lake trophic state. Ecological Modelling, 2020, 430, 109134.	2.5	33
52	Oxygen dynamics control the burial of organic carbon in a eutrophic reservoir. Limnology and Oceanography Letters, 2018, 3, 293-301.	3.9	31
53	Comparison of regional stream and lake chemistry: Differences, similarities, and potential drivers. Limnology and Oceanography, 2011, 56, 1551-1562.	3.1	28
54	Phosphorus sources and demand during summer in a eutrophic lake. Aquatic Sciences, 2009, 71, 214-227.	1.5	27

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55	Metabolic changes and the resistance and resilience of a subtropical heterotrophic lake to typhoon disturbance. Canadian Journal of Fisheries and Aquatic Sciences, 2011, 68, 768-780.	1.4	25
56	A grassroots approach to sensor and science networks. Frontiers in Ecology and the Environment, 2007, 5, 343-343.	4.0	24
57	Lake shoreline in the contiguous United States: quantity, distribution and sensitivity to observation resolution. Freshwater Biology, 2014, 59, 213-223.	2.4	24
58	Differential Responses of Maximum Versus Median Chlorophyllâ€a to Air Temperature and Nutrient Loads in an Oligotrophic Lake Over 31ÂYears. Water Resources Research, 2020, 56, e2020WR027296.	4.2	24
59	Improving the precision of lake ecosystem metabolism estimates by identifying predictors of model uncertainty. Limnology and Oceanography: Methods, 2014, 12, 303-312.	2.0	23
60	From concept to practice to policy: modeling coupled natural and human systems in lake catchments. Ecosphere, 2018, 9, e02209.	2.2	23
61	Anoxia decreases the magnitude of the carbon, nitrogen, and phosphorus sink in freshwaters. Global Change Biology, 2022, 28, 4861-4881.	9.5	23
62	Diel cycles in the fluorescence of dissolved organic matter in dystrophic Wisconsin seepage lakes: Implications for carbon turnover. Limnology and Oceanography, 2015, 60, 482-496.	3.1	22
63	Stochastic dynamics of Cyanobacteria in longâ€term highâ€frequency observations of a eutrophic lake. Limnology and Oceanography Letters, 2020, 5, 331-336.	3.9	22
64	Dynamic modeling of organic carbon fates in lake ecosystems. Ecological Modelling, 2018, 386, 71-82.	2.5	21
65	Drivers and Management Implications of Long-Term Cisco Oxythermal Habitat Decline in Lake Mendota, WI. Environmental Management, 2019, 63, 396-407.	2.7	21
66	Enhancing collaboration between ecologists and computer scientists: lessons learned and recommendations forward. Ecosphere, 2019, 10, e02753.	2.2	17
67	ReaLSAT, a global dataset of reservoir and lake surface area variations. Scientific Data, 2022, 9, .	5.3	17
68	Climate change and lakes: Estimating sensitivities of water and carbon budgets. Journal of Geophysical Research, 2009, 114, .	3.3	16
69	A lake classification concept for a more accurate global estimate of the dissolved inorganic carbon export from terrestrial ecosystems to inland waters. Die Naturwissenschaften, 2018, 105, 25.	1.6	13
70	Integrating fast and slow processes is essential for simulating humanâ€“freshwater interactions. Ambio, 2019, 48, 1169-1182.	5.5	13
71	Coupling Natural and Human Models in the Context of a Lake Ecosystem: Lake Mendota, Wisconsin, USA. Ecological Economics, 2020, 169, 106556.	5.7	12
72	The age of water and carbon in lakeâ€catchments: A simple dynamical model. Limnology and Oceanography Letters, 2018, 3, 236-245.	3.9	10

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73	Longâ€term change in metabolism phenology in north temperate lakes. Limnology and Oceanography, 2022, 67, 1502-1521.	3.1	10
74	Correcting CDOM fluorescence measurements for temperature effects under field conditions in freshwaters. Limnology and Oceanography: Methods, 2014, 12, 23-24.	2.0	9
75	Generating community-built tools for data sharing and analysis in environmental networks. Inland Waters, 2016, 6, 637-644.	2.2	9
76	A temperature compensation method for chlorophyll and phycocyanin fluorescence sensors in freshwater. Limnology and Oceanography: Methods, 2017, 15, 642-652.	2.0	9
77	GRAPLEr: A distributed collaborative environment for lake ecosystem modeling that integrates overlay networks, highâ€throughput computing, and WEB services. Concurrency Computation Practice and Experience, 2017, 29, e4139.	2.2	9
78	Virtual Growing Pains: Initial Lessons Learned from Organizing Virtual Workshops, Summits, Conferences, and Networking Events during a Global Pandemic. Limnology and Oceanography Bulletin, 2021, 30, 1-11.	0.4	9
79	Conceptual Challenges and Practical Issues in Building The Global Lake Ecological Observatory Network. , 2007, , .		8
80	Information management at the North Temperate Lakes Long-term Ecological Research site â€" Successful support of research in a large, diverse, and long running project. Ecological Informatics, 2016, 36, 201-208.	5.2	8
81	Drainage Ratio as a Strong Predictor of Allochthonous Carbon Budget in Hemiboreal Lakes. Ecosystems, 2019, 22, 805-817.	3.4	8
82	Mining lake time series using symbolic representation. Ecological Informatics, 2017, 39, 10-22.	5.2	7
83	Variability in fluorescent dissolved organic matter concentrations across diel to seasonal time scales is driven by water temperature and meteorology in a eutrophic reservoir. Aquatic Sciences, 2021, 83, 1.	1.5	6
84	Estimating pelagic primary production in lakes: Comparison of 14 C incubation and freeâ€water O 2 approaches. Limnology and Oceanography: Methods, 2022, 20, 34-45.	2.0	5
85	Dynamics of the streamâ€"lake transitional zone affect littoral lake metabolism. Aquatic Sciences, 2022, 84, 1.	1.5	3
86	A data mining approach to evaluate suitability of dissolved oxygen sensor observations for lake metabolism analysis. Limnology and Oceanography: Methods, 2018, 16, 787-801.	2.0	2