Michael J Bowes

List of Publications by Citations

96 papers	3,932 citations	37 h-index	60 g-index
103 ext. papers	4,562 ext. citations	6.8 avg, IF	5.28 L-index

#	Paper	IF	Citations
96	How green is my river? A new paradigm of eutrophication in rivers. *Science of the Total Environment*, **2006**, 365, 66-83	10.2	360
95	Sensors in the Stream: The High-Frequency Wave of the Present. *Environmental Science & Technology*, **2016**, 50, 10297-10307	10.3	162
94	Characterising phosphorus and nitrate inputs to a rural river using high-frequency concentration-flow relationships. *Science of the Total Environment*, **2015**, 511, 608-20	10.2	136
93	Catchment-scale biogeography of riverine bacterioplankton. *ISME Journal*, **2015**, 9, 516-26	11.9	134
92	Modelling of phosphorus inputs to rivers from diffuse and point sources. *Science of the Total Environment*, **2008**, 395, 125-38	10.2	131
91	An assessment of the fate, behaviour and environmental risk associated with sunscreen TiO□ nanoparticles in UK field scenarios. *Science of the Total Environment*, **2011**, 409, 2503-10	10.2	126
90	Phosphorus-discharge hysteresis during storm events along a river catchment: the River Swale, UK. *Water Research*, **2005**, 39, 751-62	12.5	117
89	Fate of silica nanoparticles in simulated primary wastewater treatment. *Environmental Science & Technology*, **2009**, 43, 8622-8	10.3	114
88	Phosphorus dynamics along a river continuum. *Science of the Total Environment*, **2003**, 313, 199-212	10.2	108
87	Hydrochemical processes in lowland rivers: insights from in situ, high-resolution monitoring. *Hydrology and Earth System Sciences*, **2012**, 16, 4323-4342	5.5	99
86	The value of high-resolution nutrient monitoring: A case study of the River Frome, Dorset, UK. *Journal of Hydrology*, **2009**, 378, 82-96	6	91
85	Streamwater phosphorus and nitrogen across a gradient in rural□gricultural land use intensity. *Agriculture, Ecosystems and Environment*, **2010**, 135, 238-252	5.7	88
84	Validated predictive modelling of the environmental resistome. *ISME Journal*, **2015**, 9, 1467-76	11.9	85
83	Nutrient and light limitation of periphyton in the River Thames: implications for catchment management. *Science of the Total Environment*, **2012**, 434, 201-12	10.2	83
82	Within-river phosphorus retention: accounting for a missing piece in the watershed phosphorus puzzle. *Environmental Science & Technology*, **2012**, 46, 13284-92	10.3	80
81	Spatial and temporal changes in chlorophyll-a concentrations in the River Thames basin, UK: are phosphorus concentrations beginning to limit phytoplankton biomass?. *Science of the Total Environment*, **2012**, 426, 45-55	10.2	76
80	Phosphorus and nitrogen limitation and impairment of headwater streams relative to rivers in Great Britain: A national perspective on eutrophication. *Science of the Total Environment*, **2018**, 621, 849-862	10.2	74

79	The relative contribution of sewage and diffuse phosphorus sources in the River Avon catchment, southern England: implications for nutrient management. *Science of the Total Environment*, **2005**, 344, 67-81	10.2	70
78	Long-term changes in macroinvertebrate communities of a heavy metal polluted stream: the river Nent (Cumbria, UK) after 28 years. *River Research and Applications*, **2007**, 23, 997-1015	2.3	68
77	Phosphorus and dissolved silicon dynamics in the River Swale catchment, UK: a mass-balance approach. *Hydrological Processes*, **2001**, 15, 261-280	3.3	64
76	Identifying priorities for nutrient mitigation using river concentration□low relationships: The Thames basin, UK. *Journal of Hydrology*, **2014**, 517, 1-12	6	62
75	Impacts of climate change, land-use change and phosphorus reduction on phytoplankton in the River Thames (UK). *Science of the Total Environment*, **2016**, 572, 1507-1519	10.2	59
74	Seasonal nutrient dynamics in a chalk stream: the River Frome, Dorset, UK. *Science of the Total Environment*, **2005**, 336, 225-41	10.2	58
73	Using high-frequency water quality data to assess sampling strategies for the EU Water Framework Directive. *Hydrology and Earth System Sciences*, **2015**, 19, 2491-2504	5.5	57
72	Seasonal export of phosphorus from a lowland catchment: upper River Cherwell in Oxfordshire, England. *Science of the Total Environment*, **2001**, 269, 117-30	10.2	56
71	Identifying multiple stressor controls on phytoplankton dynamics in the River Thames (UK) using high-frequency water quality data. *Science of the Total Environment*, **2016**, 569-570, 1489-1499	10.2	54
70	High-frequency water quality monitoring in an urban catchment: hydrochemical dynamics, primary production and implications for the Water Framework Directive. *Hydrological Processes*, **2015**, 29, 3388-3407	3.3	53
69	Changes in water quality of the River Frome (UK) from 1965 to 2009: is phosphorus mitigation finally working?. *Science of the Total Environment*, **2011**, 409, 3418-30	10.2	52
68	Responses of Aquatic Plants to Eutrophication in Rivers: A Revised Conceptual Model. *Frontiers in Plant Science*, **2018**, 9, 451	6.2	50
67	Predicting phosphorus concentrations in British rivers resulting from the introduction of improved phosphorus removal from sewage effluent. *Science of the Total Environment*, **2010**, 408, 4239-50	10.2	46
66	A cost-effectiveness analysis of water security and water quality: impacts of climate and land-use change on the River Thames system. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2013**, 371, 20120413	3	44
65	Periphyton biomass response to changing phosphorus concentrations in a nutrient-impacted river: a new methodology for phosphorus target setting. *Canadian Journal of Fisheries and Aquatic Sciences*, **2007**, 64, 227-238	2.4	44
64	Assessing the population equivalent and performance of wastewater treatment through the ratios of pharmaceuticals and personal care products present in a river basin: Application to the River Thames basin, UK. *Science of the Total Environment*, **2017**, 575, 1100-1108	10.2	42
63	Intra- and inter-pandemic variations of antiviral, antibiotics and decongestants in wastewater treatment plants and receiving rivers. *PLoS ONE*, **2014**, 9, e108621	3.7	40
62	The Water Quality of the River Enborne, UK: Observations from High-Frequency Monitoring in a Rural, Lowland River System. *Water (Switzerland)*, **2014**, 6, 150-180	3	40

61	Changes in point and diffuse source phosphorus inputs to the River Frome (Dorset, UK) from 1966 to 2006. *Science of the Total Environment*, **2009**, 407, 1954-66	10.2	38
60	Mapping eutrophication risk from climate change: Future phosphorus concentrations in English rivers. *Science of the Total Environment*, **2018**, 613-614, 1510-1526	10.2	37
59	The effects of increased flow and fine sediment on hyporheic invertebrates and nutrients in stream mesocosms. *Freshwater Biology*, **2015**, 60, 813-826	3.1	36
58	Phosphorus release from sediments in a treatment wetland: Contrast between DET and EPC0 methodologies. *Ecological Engineering*, **2011**, 37, 826-832	3.9	36
57	Dynamic modelling of multiple phytoplankton groups in rivers with an application to the Thames river system in the UK. *Environmental Modelling and Software*, **2015**, 74, 75-91	5.2	31
56	Seasonal and Interannual Changes in Sediment Transport Identified through Sediment Rating Curves. *Journal of Hydrologic Engineering - ASCE*, **2017**, 22, 06016016	1.8	30
55	Weekly flow cytometric analysis of riverine phytoplankton to determine seasonal bloom dynamics. *Environmental Sciences: Processes and Impacts*, **2014**, 16, 594-603	4.3	29
54	Lowland river water quality: a new UK data resource for process and environmental management analysis. *Hydrological Processes*, **2012**, 26, 949-960	3.3	28
53	Eutrophication impacts on a river macrophyte. *Aquatic Botany*, **2010**, 92, 173-178	1.8	28
52	Decreasing boron concentrations in UK rivers: insights into reductions in detergent formulations since the 1990s and within-catchment storage issues. *Science of the Total Environment*, **2010**, 408, 1374-85	10.2	28
51	Impacts of phosphorus concentration and light intensity on river periphyton biomass and community structure. *Hydrobiologia*, **2017**, 792, 315-330	2.4	27
50	Trace levels of sewage effluent are sufficient to increase class 1 integron prevalence in freshwater biofilms without changing the core community. *Water Research*, **2016**, 106, 163-170	12.5	27
49	Consumer–resource elemental imbalances in a nutrient-rich stream. *Freshwater Science*, **2012**, 31, 408-422	2	27
48	Water quality, nutrients and the European union's Water Framework Directive in a lowland agricultural region: Suffolk, south-east England. *Science of the Total Environment*, **2009**, 407, 2966-79	10.2	26
47	Physico-chemical factors alone cannot simulate phytoplankton behaviour in a lowland river. *Journal of Hydrology*, **2013**, 497, 223-233	6	25
46	Evaluation of DGT as a long-term water quality monitoring tool in natural waters; uranium as a case study. *Environmental Sciences: Processes and Impacts*, **2014**, 16, 393-403	4.3	24
45	Compliance to oseltamivir among two populations in Oxfordshire, United Kingdom affected by influenza A(H1N1)pdm09, November 2009--a waste water epidemiology study. *PLoS ONE*, **2013**, 8, e60221	3.7	24
44	The impact of sequencing depth on the inferred taxonomic composition and AMR gene content of metagenomic samples. *Environmental Microbiomes*, **2019**, 14, 7	5.6	24

43	Characterisation of a major phytoplankton bloom in the River Thames (UK) using flow cytometry and high performance liquid chromatography. *Science of the Total Environment*, **2018**, 624, 366-376	10.2	21
42	Are groundwater nitrate concentrations reaching a turning point in some chalk aquifers?. *Science of the Total Environment*, **2010**, 408, 4722-32	10.2	20
41	Weekly water quality monitoring data for the River Thames (UK) and its major tributaries (2009–2013): the Thames Initiative research platform. *Earth System Science Data*, **2018**, 10, 1637-1653	10.5	19
40	Influence of turbid flood water release on sediment deposition and phosphorus distribution in the bed sediment of the Three Gorges Reservoir, China. *Science of the Total Environment*, **2019**, 657, 36-45	10.2	19
39	Sewage effluent clean-up reduces phosphorus but not phytoplankton in lowland chalk stream (River Kennet, UK) impacted by water mixing from adjacent canal. *Science of the Total Environment*, **2010**, 408, 5306-16	10.2	18
38	Mains water leakage: Implications for phosphorus source apportionment and policy responses in catchments. *Science of the Total Environment*, **2017**, 579, 702-708	10.2	17
37	Projections of future deterioration in UK river quality are hampered by climatic uncertainty under extreme conditions. *Hydrological Sciences Journal*, **2016**, 61, 2818-2833	3.5	17
36	Riparian shading controls instream spring phytoplankton and benthic algal growth. *Environmental Sciences: Processes and Impacts*, **2016**, 18, 677-89	4.3	16
35	High-frequency phosphorus monitoring of the River Kennet, UK: are ecological problems due to intermittent sewage treatment works failures?. *Journal of Environmental Monitoring*, **2012**, 14, 3137-45		13
34	Modelling the dispersion of radionuclides following short duration releases to rivers: Part 1. Water and sediment. *Science of the Total Environment*, **2006**, 368, 485-501	10.2	13
33	A novel application of remote sensing for modelling impacts of tree shading on water quality. *Journal of Environmental Management*, **2019**, 230, 33-42	7.9	13
32	Carbon, Nitrogen, and Phosphorus Stoichiometry and Eutrophication in River Thames Tributaries, UK. *Agricultural and Environmental Letters*, **2017**, 2, ael2017.06.0020	1.5	12
31	Niche and local geography shape the pangenome of wastewater- and livestock-associated Enterobacteriaceae. *Science Advances*, **2021**, 7,	14.3	12
30	Exploring controls on the fate of PVP-capped silver nanoparticles in primary wastewater treatment. *Environmental Science: Nano*, **2015**, 2, 177-190	7.1	10
29	Intense summer floods may induce prolonged increases in benthic respiration rates of more than one year leading to low river dissolved oxygen. *Journal of Hydrology X*, **2020**, 8, 100056	4.6	9
28	A long-term study of stable isotopes as tracers of processes governing water flow and quality in a lowland river basin: the upper Thames, UK. *Hydrological Processes*, **2016**, 30, 2178-2195	3.3	9
27	Evaluating the stable isotopic composition of phosphate oxygen as a tracer of phosphorus from waste water treatment works. *Applied Geochemistry*, **2018**, 95, 139-146	3.5	9
26	Phosphorus enrichment of the oligotrophic River Rede (Northumberland, UK) has no effect on periphyton growth rate. *Inland Waters*, **2014**, 4, 121-132	2.4	9

25	Nutrient and microbial water quality of the upper Ganga River, India: identification of pollution sources. *Environmental Monitoring and Assessment*, **2020**, 192, 533	3.1	9
24	Using dissolved organic matter fluorescence to identify the provenance of nutrients in a lowland catchment; the River Thames, England. *Science of the Total Environment*, **2019**, 653, 1240-1252	10.2	9
23	Biogeochemical and climate drivers of wetland phosphorus and nitrogen release: Implications for nutrient legacies and eutrophication risk. *Journal of Environmental Quality*, **2020**, 49, 1703-1716	3.4	8
22	Contrasting community assembly processes structure lotic bacteria metacommunities along the river continuum. *Environmental Microbiology*, **2021**, 23, 484-498	5.2	8
21	Landscape controls on riverine export of dissolved organic carbon from Great Britain. *Biogeochemistry*,1	3.8	8
20	Linking Soil Erosion to Instream Dissolved Phosphorus Cycling and Periphyton Growth. *Journal of the American Water Resources Association*, **2017**, 53, 809-821	2.1	7
19	A review and model assessment of (32)P and (33)P uptake to biota in freshwater systems. *Journal of Environmental Radioactivity*, **2011**, 102, 317-25	2.4	7
18	In Situ Catchment Scale Sampling of Emerging Contaminants Using Diffusive Gradients in Thin Films (DGT) and Traditional Grab Sampling: A Case Study of the River Thames, UK. *Environmental Science & Technology*, **2020**, 54, 11155-11164	10.3	7
17	Does agri-environmental management enhance biodiversity and multiple ecosystem services?: A farm-scale experiment. *Agriculture, Ecosystems and Environment*, **2021**, 320, 107582	5.7	7
16	Balancing Water Demand Needs with Protection of River Water Quality by Minimising Stream Residence Time: an Example from the Thames, UK. *Water Resources Management*, **2018**, 32, 2561-2568	3.7	6
15	Evaluating diffuse and point source phosphorus inputs to streams in a cold climate region using a load apportionment model. *Journal of Great Lakes Research*, **2021**, 47, 761-772	3	6
14	Phosphorus fluxes to the environment from mains water leakage: Seasonality and future scenarios. *Science of the Total Environment*, **2018**, 636, 1321-1332	10.2	6
13	Using high-frequency phosphorus monitoring for water quality management: a case study of the upper River Itchen, UK. *Environmental Monitoring and Assessment*, **2020**, 192, 184	3.1	5
12	Modeling of river dynamics of phosphorus under unsteady flow conditions. *Water Resources Research*, **2006**, 42,	5.4	5
11	Investigating periphyton biofilm response to changing phosphorus concentrations in UK rivers using within-river flumes		5
10	Establishing the Baseline in Groundwater Chemistry in Connection with Shale-gas Exploration: Vale of Pickering, UK. *Procedia Earth and Planetary Science*, **2017**, 17, 678-681		4
9	Genomic network analysis of environmental and livestock F-type plasmid populations. *ISME Journal*, **2021**, 15, 2322-2335	11.9	4
8	Advancing integrated research on European river–sea systems: the DANUBIUS-RI project. *International Journal of Water Resources Development*, **2018**, 34, 888-899	3	4

7	16S rRNA assessment of the influence of shading on early-successional biofilms in experimental streams. *FEMS Microbiology Ecology*, **2015**, 91,	4.3	3
6	The Catchment Runoff Attenuation Flux Tool, a minimum information requirement nutrient pollution model. *Hydrology and Earth System Sciences*, **2015**, 19, 1641-1657	5.5	3
5	The impact of sequencing depth on the inferred taxonomic composition and AMR gene content of metagenomic samples		1
4	A Tale of Two Rivers: Can the Restoration Lessons of River Thames (Southern UK) Be Transferred to River Hindon (Northern India)?. *Water, Air, and Soil Pollution*, **2021**, 232, 212	2.6	1
3	Method development for rapid quantification of Rn-222 in surface water and groundwater. *Environmental Geochemistry and Health*, **2020**, 42, 1109-1115	4.7	1
2	Water Quality240-266		1
1	A systematic approach to understand hydrogeochemical dynamics in large river systems: Development and application to the River Ganges (Ganga) in India.. *Water Research*, **2022**, 211, 118054	12.5	0