James Bryan Cotner

List of Publications by Year
in descending order

115 papers	10,843 citations	50276 46 h-index	31849 101 g-index
117 all docs	117 docs citations	117 times ranked	11827 citing authors

#	Article	IF	Citations
1	Exploring watershed effects on nutrient concentrations in shallow lakes through stable isotope analysis. Science of the Total Environment, 2022, 823, 153742.	8.0	1
2	Sources and biodegradability of dissolved organic matter in two headwater peatland catchments at the Marcell Experimental Forest, northern Minnesota, <scp>USA</scp>. Hydrological Processes, 2021, 35, e14049.	2.6	9
3	Winter Oxygen Regimes in Clear and Turbid Shallow Lakes. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG006065.	3.0	5
4	Long-term organic fertilization changes soil active bacterial composition and multifunctionality: RNA-based bacterial community and qPCR-based SmartChip analysis. Journal of Soils and Sediments, 2021, 21, 799-809.	3.0	12
5	The Lake Ice Continuum Concept: Influence of Winter Conditions on Energy and Ecosystem Dynamics. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG006165.	3.0	15
6	Upper Midwest lakes are supersaturated with N ₂. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17063-17067.	7.1	27
7	Stable isotope patterns in lake food webs reflect productivity gradients. Ecosphere, 2020, 11, e03244.	2.2	4
8	Further Development of a Specific Conductivity Approach to Measure Groundwater Discharge Area within Lakes. Journal of the American Water Resources Association, 2019, 55, 485-496.	2.4	3
9	Contemporary Mobilization of Legacy Pb Stores by DOM in a Boreal Peatland. Environmental Science & Technology, 2018, 52, 3375-3383.	10.0	7
10	Stoichiometry of carbon, nitrogen, and phosphorus through the freshwater pipe. Limnology and Oceanography Letters, 2018, 3, 89-101.	3.9	98
11	Biochars induced modification of dissolved organic matter (DOM) in soil and its impact on mobility and bioaccumulation of arsenic and cadmium. Journal of Hazardous Materials, 2018, 348, 100-108.	12.4	233
12	Organic phosphorus in the terrestrial environment: a perspective on the state of the art and future priorities. Plant and Soil, 2018, 427, 191-208.	3.7	145
13	What intrinsic and extrinsic factors explain the stoichiometric diversity of aquatic heterotrophic bacteria?. ISME Journal, 2018, 12, 598-609.	9.8	25
14	University Of Minnesota Itasca Biological Station and Laboratories: Over 100 Years Of Field-Based Education and Research. Limnology and Oceanography Bulletin, 2018, 27, 42-44.	0.4	1
15	Global development of the studies focused on antibiotics in aquatic systems from 1945 to 2017. Environmental Science and Pollution Research, 2018, 25, 22023-22034.	5.3	10
16	Bioavailability of Dissolved Organic Phosphorus in Temperate Lakes. Frontiers in Environmental Science, 2018, 6, .	3.3	26
17	Understanding how microbiomes influence the systems they inhabit. Nature Microbiology, 2018, 3, 977-982.	13.3	169
18	Editorial: Progress in Ecological Stoichiometry. Frontiers in Microbiology, 2018, 9, 1957.	3.5	36

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19	Growth rate and resource imbalance interactively control biomass stoichiometry and elemental quotas of aquatic bacteria. Ecology, 2017, 98, 820-829.	3.2	31
20	Nitrogen is Not a â€˜House of Cardsâ€™. Environmental Science & Technology, 2017, 51, 3-3.	10.0	10
21	Watershed vs. withinâ€lake drivers of nitrogen: phosphorus dynamics in shallow lakes. Ecological Applications, 2017, 27, 2155-2169.	3.8	16
22	Great Lakes: Science can keep them great. Journal of Great Lakes Research, 2017, 43, 916-919.	1.9	6
23	Ecological Stoichiometry beyond Redfield: An Ionomic Perspective on Elemental Homeostasis. Frontiers in Microbiology, 2017, 8, 722.	3.5	51
24	Redfield Ratios in Inland Waters: Higher Biological Control of C:N:P Ratios in Tropical Semi-arid High Water Residence Time Lakes. Frontiers in Microbiology, 2017, 8, 1505.	3.5	44
25	The Effects of Nutrient Imbalances and Temperature on the Biomass Stoichiometry of Freshwater Bacteria. Frontiers in Microbiology, 2017, 8, 1692.	3.5	14
26	The legacy of large regime shifts in shallow lakes. Ecological Applications, 2016, 26, 2662-2676.	3.8	19
27	Scaling relationships among drivers of aquatic respiration in temperate lakes: from the smallest to the largest freshwater ecosystems. Inland Waters, 2016, 6, 1-10.	2.2	2
28	Uniform carbon fluxes in shallow lakes in alternative stable states. Limnology and Oceanography, 2016, 61, 330-340.	3.1	17
29	Bold, Sedentary Fathead Minnows Have More Parasites. Zebrafish, 2016, 13, 248-255.	1.1	3
30	Sediments and Soils Act as Reservoirs for Taxonomic and Functional Bacterial Diversity in the Upper Mississippi River. Microbial Ecology, 2016, 71, 814-824.	2.8	29
31	High-throughput functional screening reveals low frequency of antibiotic resistance genes in DNA recovered from the Upper Mississippi River. Journal of Water and Health, 2015, 13, 693-703.	2.6	20
32	Frequencies of heavy metal resistance are associated with land cover type in the Upper Mississippi River. Science of the Total Environment, 2015, 511, 461-468.	8.0	19
33	Stoichiometric flexibility in diverse aquatic heterotrophic bacteria is coupled to differences in cellular phosphorus quotas. Frontiers in Microbiology, 2015, 6, 159.	3.5	35
34	Evaluation of water sampling methodologies for amplicon-based characterization of bacterial community structure. Journal of Microbiological Methods, 2015, 114, 43-50.	1.6	42
35	Disentangling the Interactions Between Photochemical and Bacterial Degradation of Dissolved Organic Matter: Amino Acids Play a Central Role. Microbial Ecology, 2015, 69, 554-566.	2.8	37
36	Aquatic heterotrophic bacteria have highly flexible phosphorus content and biomass stoichiometry. ISME Journal, 2015, 9, 2324-2327.	9.8	83

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37	Relationships between protein-encoding gene abundance and corresponding process are commonly assumed yet rarely observed. ISME Journal, 2015, 9, 1693-1699.	9.8	276
38	Species sorting and seasonal dynamics primarily shape bacterial communities in the Upper Mississippi River. Science of the Total Environment, 2015, 505, 435-445.	8.0	133
39	Core functional traits of bacterial communities in the Upper Mississippi River show limited variation in response to land cover. Frontiers in Microbiology, 2014, 5, 414.	3.5	95
40	Bacterial community structure is indicative of chemical inputs in the Upper Mississippi River. Frontiers in Microbiology, 2014, 5, 524.	3.5	70
41	Physiological modifications of seston in response to physicochemical gradients within Lake Superior. Limnology and Oceanography, 2014, 59, 1011-1026.	3.1	17
42	Carbon:phosphorus homeostasis of aquatic bacterial assemblages is mediated by shifts in assemblage composition. Aquatic Microbial Ecology, 2014, 73, 245-258.	1.8	26
43	Nitrogen transformations at the sedimentâ€“water interface across redox gradients in the Laurentian Great Lakes. Hydrobiologia, 2014, 731, 95-108.	2.0	63
44	Pulsing hydrology determines topâ€down control of basal resources in a tropical riverâ€“floodplain ecosystem. Ecological Monographs, 2014, 84, 621-635.	5.4	47
45	Application of Illumina next-generation sequencing to characterize the bacterial community of the Upper Mississippi River. Journal of Applied Microbiology, 2013, 115, 1147-1158.	3.1	209
46	Estimating modern carbon burial rates in lakes using a single sediment sample. Limnology and Oceanography: Methods, 2013, 11, 316-326.	2.0	19
47	Tropical freshwater ecosystems have lower bacterial growth efficiency than temperate ones. Frontiers in Microbiology, 2013, 4, 167.	3.5	52
48	Cultural Beliefs, Values, and the Biogeochemical Cycling of P. , 2013, , 142-166.		0
49	Spatial and Temporal Distribution of Singlet Oxygen in Lake Superior. Environmental Science & Technology, 2012, 46, 7222-7229.	10.0	103
50	The altered ecology of Lake Christina: A record of regime shifts, land-use change, and management from a temperate shallow lake. Science of the Total Environment, 2012, 433, 336-346.	8.0	20
51	Variable Stoichiometry and Homeostatic Regulation of Bacterial Biomass Elemental Composition. Frontiers in Microbiology, 2012, 3, 42.	3.5	88
52	Comment on â€œA Bacterium That Can Grow by Using Arsenic Instead of Phosphorusâ€. Science, 2011, 332, 1149-1149.	12.6	21
53	Freshwater Bacteria are Stoichiometrically Flexible with a Nutrient Composition Similar to Seston. Frontiers in Microbiology, 2010, 1, 132.	3.5	86
54	Singlet Oxygen in the Coupled Photochemical and Biochemical Oxidation of Dissolved Organic Matter. Environmental Science & Technology, 2010, 44, 3683-3689.	10.0	134

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55	The microbial role in littoral zone biogeochemical processes: Why Wetzel was right. Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology, 2009, 30, 981-984.	0.1	1
56	Quantifying Interactions between Singlet Oxygen and Aquatic Fulvic Acids. Environmental Science & Technology, 2009, 43, 718-723.	10.0	102
57	Lakes and reservoirs as regulators of carbon cycling and climate. Limnology and Oceanography, 2009, 54, 2298-2314.	3.1	1,977
58	The effect of temperature on the coupling between phosphorus and growth in lacustrine bacterioplankton communities. Limnology and Oceanography, 2009, 54, 880-889.	3.1	30
59	Toward a mechanistic understanding of how natural bacterial communities respond to changes in temperature in aquatic ecosystems. ISME Journal, 2008, 2, 471-481.	9.8	108
60	Gene expression patterns of sulfur starvation in Synechocystis sp. PCC 6803. BMC Genomics, 2008, 9, 344.	2.8	74
61	Stimulation of Lake Michigan Plankton Metabolism by Sediment Resuspension and River Runoff. Journal of Great Lakes Research, 2008, 34, 213-227.	1.9	43
62	Indirect Photodegradation of Dissolved Free Amino Acids: The Contribution of Singlet Oxygen and the Differential Reactivity of DOM from Various Sources. Environmental Science & Technology, 2008, 42, 5492-5498.	10.0	201
63	Littoral zones as sources of biodegradable dissolved organic carbon in lakes. Canadian Journal of Fisheries and Aquatic Sciences, 2008, 65, 2454-2460.	1.4	28
64	Doughnut in the desert: Lateâ€winter production pulse in southern Lake Michigan. Limnology and Oceanography, 2008, 53, 589-604.	3.1	39
65	The influence of dissolved organic carbon on bacterial phosphorus uptake and bacteriaâ€phytoplankton dynamics in two Minnesota lakes. Limnology and Oceanography, 2008, 53, 137-147.	3.1	55
66	Interactive effect of temperature and resources on carbon cycling by freshwater bacterioplankton communities. Aquatic Microbial Ecology, 2007, 49, 35-45.	1.8	61
67	Contrasting interactions mediate dissolved organic matter decomposition in tropical aquatic ecosystems. Aquatic Microbial Ecology, 2007, 49, 25-34.	1.8	38
68	Hydrological seasonality and benthic algal biomass in a Neotropical floodplain river. Journal of the North American Benthological Society, 2006, 25, 157-170.	3.1	39
69	Temperature Affects Stoichiometry and Biochemical Composition of Escherichia coli. Microbial Ecology, 2006, 52, 26-33.	2.8	58
70	Optically determined sources of allochthonous organic matter and metabolic characterizations in a tropical oligotrophic river and associated lagoon. Journal of the North American Benthological Society, 2006, 25, 185-197.	3.1	19
71	Seasonally varying impact of detritivorous fishes on the benthic ecology of a tropical floodplain river. Journal of the North American Benthological Society, 2006, 25, 250-262.	3.1	52
72	Seasonally variable riverine production in the Venezuelan llanos. Journal of the North American Benthological Society, 2006, 25, 171-184.	3.1	50

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73	Effect of Microbes on Contaminant Transfer in the Lake Superior Food Web. Environmental Science & Technology, 2005, 39, 9500-9508.	10.0	7
74	The Functional Significance of Ribosomal (r)DNA Variation: Impacts on the Evolutionary Ecology of Organisms. Annual Review of Ecology, Evolution, and Systematics, 2005, 36, 219-242.	8.3	137
75	Nutrient, sulfur and carbon dynamics in a hypersaline lagoon. Estuarine, Coastal and Shelf Science, 2004, 59, 639-652.	2.1	25
76	Effects of small scale fluid motion on bacterial growth and respiration. Freshwater Biology, 2004, 49, 28-40.	2.4	24
77	Organic carbon biogeochemistry of Lake Superior. Aquatic Ecosystem Health and Management, 2004, 7, 451-464.	0.6	62
78	Distribution and dynamics of nitrogen and microbial plankton in southern Lake Michigan during spring transition 1999-2000. Journal of Geophysical Research, 2004, 109, .	3.3	37
79	Impacts of suspended sediment on the ecosystem in Lake Michigan: A comparison between the 1998 and 1999 plume events. Journal of Geophysical Research, 2004, 109, .	3.3	32
80	A modeling study of benthic detritus flux's impacts on heterotrophic processes in Lake Michigan. Journal of Geophysical Research, 2004, 109, .	3.3	4
81	Elemental stoichiometry of a heterotrophic bacterial community in a freshwater lake: implications for growth- and resource-dependent variations. Aquatic Microbial Ecology, 2004, 34, 33-41.	1.8	77
82	Are bacteria more like plants or animals? Growth rate and resource dependence of bacterial CÂ:ÂNÂ:ÂP stoichiometry. Functional Ecology, 2003, 17, 121-130.	3.6	308
83	Temperature and the chemical composition of poikilothermic organisms. Functional Ecology, 2003, 17, 237-245.	3.6	221
84	Growth rate-stoichiometry couplings in diverse biota. Ecology Letters, 2003, 6, 936-943.	6.4	758
85	Enhancement of Dissolved Organic Matter Bioavailability by Sunlight and Its Role in the Carbon Cycle of Lakes Superior and Michigan. Journal of Great Lakes Research, 2003, 29, 228-241.	1.9	44
86	A model study of the coupled biological and physical dynamics in Lake Michigan. Ecological Modelling, 2002, 152, 145-168.	2.5	90
87	Influences of suspended sediments on the ecosystem in Lake Michigan: a 3-D coupled bio-physical modeling experiment. Ecological Modelling, 2002, 152, 169-190.	2.5	37
88	Small Players, Large Role: Microbial Influence on Biogeochemical Processes in Pelagic Aquatic Ecosystems. Ecosystems, 2002, 5, 105-121.	3.4	529
89	Love Handles in Aquatic Ecosystems: The Role of Dissolved Organic Carbon Drawdown, Resuspended Sediments, and Terrigenous Inputs in the Carbon Balance of Lake Michigan. Ecosystems, 2002, 5, 431-445.	3.4	141
90	Title is missing!. Biogeochemistry, 2002, 61, 199-228.	3.5	19

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91	Nitrogen Dynamics in Sandy Freshwater Sediments (Saginaw Bay, Lake Huron). Journal of Great Lakes Research, 2001, 27, 84-97.	1.9	41
92	Dominance of bacterial metabolism in oligotrophic relative to eutrophic waters. Limnology and Oceanography, 2001, 46, 730-739.	3.1	311
93	Double-stranded DNA measurement in lakes with the fluorescent stain PicoGreen and the application to bacterial bioassays. Aquatic Microbial Ecology, 2001, 25, 65-74.	1.8	14
94	Fish Assemblage Structure in Relation to Environmental Variation among Brazos River Oxbow Lakes. Transactions of the American Fisheries Society, 2000, 129, 451-468.	1.4	114
95	Intense winter heterotrophic production stimulated by benthic resuspension. Limnology and Oceanography, 2000, 45, 1672-1676.	3.1	83
96	Nutrient Limitation of Heterotrophic Bacteria in Florida Bay. Estuaries and Coasts, 2000, 23, 611.	1.7	65
97	Heterotrophic bacterial growth and nutrient limitation in large oligotrophic lakes and oceans. Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology, 2000, 27, 1831-1835.	0.1	4
98	Effects of natural light on nitrogen dynamics in diverse aquatic environments. Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology, 2000, 27, 64-73.	0.1	1
99	Biological stoichiometry from genes to ecosystems. Ecology Letters, 2000, 3, 540-550.	6.4	867
100	Zooplankton Community Structure of Lake Livingston, Texas, as Related to Paddlefish Food Resources. Journal of Freshwater Ecology, 1998, 13, 115-128.	1.2	3
101	The Effects of Benthivorous Smallmouth Buffalo (Ictiobus bubalus) on Water Quality and Nutrient Cycling in a Shallow Floodplain Lake. Lake and Reservoir Management, 1997, 13, 270-278.	1.3	24
102	Effects of natural light on nitrogen cycling rates in the Mississippi River plume. Limnology and Oceanography, 1997, 42, 273-281.	3.1	31
103	Phosphorus-limited bacterioplankton growth in the Sargasso Sea. Aquatic Microbial Ecology, 1997, 13, 141-149.	1.8	295
104	Temporal changes in oxygen demand and bacterial sulfate reduction in inland shrimp ponds. Aquaculture, 1996, 145, 141-158.	3.5	28
105	Effects of high-molecular-weight dissolved organic matter on nitrogen dynamics in the Mississippi River plume. Marine Ecology - Progress Series, 1996, 133, 287-297.	1.9	44
106	Effects of Zebra Mussels (Dreissena polymorpha) on Bacterioplankton: Evidence for Both Size-Selective Consumption and Growth Stimulation. Journal of Great Lakes Research, 1995, 21, 517-528.	1.9	68
107	Effects of the Zebra Mussel, Dreissena polymorpha , on Community Nitrogen Dynamics in Saginaw Bay, Lake Huron. Journal of Great Lakes Research, 1995, 21, 529-544.	1.9	70
108	Mineralization of Organic Material and Bacterial Dynamics in Mississippi River Plume Water. Estuaries and Coasts, 1994, 17, 816.	1.7	38

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109	Chromatographic measurement of nitrogen mineralization rates in marine coastal waters with l5N. Marine Ecology - Progress Series, 1993, 93, 65-73.	1.9	28
110	Uptake of dissolved inorganic and organic bphosphorus compounds by phytoplankton and bacterioplankton. Limnology and Oceanography, 1992, 37, 232-243.	3.1	296
111	Bacterial Phosphatases from Different Habitats in a Small, Hardwater Lake. Brock/Springer Series in Contemporary Bioscience, 1991, , 187-205.	0.3	30
112	5â€²-Nucleotidase Activity in a Eutrophic Lake and an Oligotrophic Lake. Applied and Environmental Microbiology, 1991, 57, 1306-1312.	3.1	32
113	Iron redox effects on photosensitive phosphorus release from dissolved humic materials. Limnology and Oceanography, 1990, 35, 1175-1181.	3.1	45
114	How increased atmospheric carbon dioxide and â€˜The Law of the Minimumâ€™ are contributing to environmental obesity. Acta Limnologica Brasiliensia, 0, 31, .	0.4	4
115	Whither winter: The altered role of winter for freshwaters as the climate changes. Journal of Geophysical Research G: Biogeosciences, 0, , .	3.0	0