James McClelland

List of Publications by Citations

100 papers	10,018 citations	49 h-index	100 g-index
100 ext. papers	11,248 ext. citations	5 avg, IF	6.02 L-index

#	Paper	IF	Citations
100	Increasing river discharge to the Arctic Ocean. *Science*, **2002**, 298, 2171-3	33.3	1137
99	Macroalgal blooms in shallow estuaries: Controls and ecophysiological and ecosystem consequences. *Limnology and Oceanography*, **1997**, 42, 1105-1118	4.8	859
98	Impacts of permafrost degradation on arctic river biogeochemistry. *Hydrological Processes*, **2009**, 23, 169-182	3.3	434
97	Nitrogen-stable isotope signatures in estuarine food webs: A record of increasing urbanization in coastal watersheds. *Limnology and Oceanography*, **1997**, 42, 930-937	4.8	425
96	Seasonal and Annual Fluxes of Nutrients and Organic Matter from Large Rivers to the Arctic Ocean and Surrounding Seas. *Estuaries and Coasts*, **2012**, 35, 369-382	2.8	412
95	TROPHIC RELATIONSHIPS AND THE NITROGEN ISOTOPIC COMPOSITION OF AMINO ACIDS IN PLANKTON. *Ecology*, **2002**, 83, 2173-2180	4.6	379
94	Flux and age of dissolved organic carbon exported to the Arctic Ocean: A carbon isotopic study of the five largest arctic rivers. *Global Biogeochemical Cycles*, **2007**, 21, n/a-n/a	5.9	357
93	Linking nitrogen in estuarine producers to land-derived sources. *Limnology and Oceanography*, **1998**, 43, 577-585	4.8	345
92	Trajectory shifts in the Arctic and subarctic freshwater cycle. *Science*, **2006**, 313, 1061-6	33.3	287
91	Measuring 15NNH4+ in marine, estuarine and fresh waters: An adaptation of the ammonia diffusion method for samples with low ammonium concentrations. *Marine Chemistry*, **1998**, 60, 235-243	3.7	285
90	A pan-arctic evaluation of changes in river discharge during the latter half of the 20th century. *Geophysical Research Letters*, **2006**, 33,	4.9	261
89	Lability of DOC transported by Alaskan rivers to the Arctic Ocean. *Geophysical Research Letters*, **2008**, 35,	4.9	246
88	Increasing river discharge in the Eurasian Arctic: Consideration of dams, permafrost thaw, and fires as potential agents of change. *Journal of Geophysical Research*, **2004**, 109,		216
87	Flow-weighted values of runoff tracers (δ18O, DOC, Ba, alkalinity) from the six largest Arctic rivers. *Geophysical Research Letters*, **2008**, 35,	4.9	168
86	Biomass offsets little or none of permafrost carbon release from soils, streams, and wildfire: an expert assessment. *Environmental Research Letters*, **2016**, 11, 034014	6.2	165
85	Dissolved organic matter sources in large Arctic rivers. *Geochimica Et Cosmochimica Acta*, **2012**, 94, 217-237	5.5	162
84	The arctic freshwater system: Changes and impacts. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		160

83	Changes in food web structure under the influence of increased anthropogenic nitrogen inputs to estuaries. *Marine Ecology - Progress Series*, **1998**, 168, 259-271	2.6	159
82	A circumpolar perspective on fluvial sediment flux to the Arctic ocean. *Global Biogeochemical Cycles* , **2002**, 16, 45-1-45-14	5.9	156
81	The Arctic Ocean Estuary. *Estuaries and Coasts*, **2012**, 35, 353-368	2.8	147
80	Trophic relationships among Southern Ocean copepods and krill: Some uses and limitations of a stable isotope approach. *Limnology and Oceanography*, **2003**, 48, 277-289	4.8	139
79	Nitrogen loading from watersheds to estuaries: Verification of the Waquoit Bay Nitrogen Loading Model. *Biogeochemistry*, **2000**, 49, 277-293	3.8	130
78	Relative importance of grazing and nutrient controls of macroalgal biomass in three temperate shallow estuaries. *Estuaries and Coasts*, **1998**, 21, 347		119
77	Circumpolar synchrony in big river bacterioplankton. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 21208-12	11.5	107
76	Linkages among runoff, dissolved organic carbon, and the stable oxygen isotope composition of seawater and other water mass indicators in the Arctic Ocean. *Journal of Geophysical Research*, **2005**, 110, n/a-n/a		105
75	An analysis of the carbon balance of the Arctic Basin from 1997 to 2006. *Tellus, Series B: Chemical and Physical Meteorology*, **2010**, 62, 455-474	3.3	104
74	Particulate organic carbon and nitrogen export from major Arctic rivers. *Global Biogeochemical Cycles*, **2016**, 30, 629-643	5.9	102
73	Relating low δ15N values of zooplankton to N2-fixation in the tropical North Atlantic: insights provided by stable isotope ratios of amino acids. *Deep-Sea Research Part I: Oceanographic Research Papers*, **2003**, 50, 849-861	2.5	100
72	A land-to-ocean perspective on the magnitude, source and implication of DIC flux from major Arctic rivers to the Arctic Ocean. *Global Biogeochemical Cycles*, **2012**, 26, n/a-n/a	5.9	99
71	Recent changes in nitrate and dissolved organic carbon export from the upper Kuparuk River, North Slope, Alaska. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		99
70	Impacts of climate warming and permafrost thaw on the riverine transport of nitrogen and phosphorus to the Kara Sea. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		93
69	Multi-decadal increases in dissolved organic carbon and alkalinity flux from the Mackenzie drainage basin to the Arctic Ocean. *Environmental Research Letters*, **2016**, 11, 054015	6.2	90
68	Trophic-level interpretation based on d15N values: implications of tissue-specific fractionation and amino acid composition. *Marine Ecology - Progress Series*, **2004**, 266, 43-58	2.6	89
67	Effects of Watershed Land use on Nitrogen Concentrations and δ15 Nitrogen in Groundwater. *Biogeochemistry*, **2006**, 77, 199-215	3.8	81
66	River export of nutrients and organic matter from the North Slope of Alaska to the Beaufort Sea. *Water Resources Research*, **2014**, 50, 1823-1839	5.4	80

65	Insights and issues with simulating terrestrial DOC loading of Arctic river networks **2013**, 23, 1817-36		74
64	Landscape-level controls on dissolved carbon flux from diverse catchments of the circumboreal. *Global Biogeochemical Cycles*, **2012**, 26, n/a-n/a	5.9	69
63	Pan-Arctic Trends in Terrestrial Dissolved Organic Matter from Optical Measurements. *Frontiers in Earth Science*, **2016**, 4,	3.5	69
62	Sulfur isotopes in rivers: Insights into global weathering budgets, pyrite oxidation, and the modern sulfur cycle. *Earth and Planetary Science Letters*, **2018**, 496, 168-177	5.3	68
61	Development of a Pan-Arctic Database for River Chemistry. *Eos*, **2008**, 89, 217-218	1.5	63
60	Rivers across the Siberian Arctic unearth the patterns of carbon release from thawing permafrost. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 10280-10285	11.5	62
59	The Processing and Impact of Dissolved Riverine Nitrogen in the Arctic Ocean. *Estuaries and Coasts*, **2012**, 35, 401-415	2.8	61
58	Utilizing colored dissolved organic matter to derive dissolved black carbon export by arctic rivers. *Frontiers in Earth Science*, **2015**, 3,	3.5	58
57	Quantifying CDOM and DOC in major Arctic rivers during ice-free conditions using Landsat TM and ETM+ data. *Remote Sensing of Environment*, **2018**, 209, 395-409	13.2	57
56	Chemical Indicators of Anthropogenic Nitrogen-Loading in Four Pacific Estuaries. *Pacific Science*, **2003**, 57, 77-101	0.9	56
55	Macrophytes as indicators of land-derived wastewater: Application of a □15N method in aquatic systems. *Water Resources Research*, **2005**, 41,	5.4	54
54	Sediment din fluxes and preferential recycling of benthic microalgal nitrogen in a shallow macrotidal estuary. *Marine Ecology - Progress Series*, **2003**, 257, 25-36	2.6	52
53	Seasonal and hydrologic drivers of dissolved organic matter and nutrients in the upper Kuparuk River, Alaskan Arctic. *Biogeochemistry*, **2011**, 103, 109-124	3.8	49
52	Modeling transport and fate of riverine dissolved organic carbon in the Arctic Ocean. *Global Biogeochemical Cycles*, **2009**, 23, n/a-n/a	5.9	49
51	Stable isotope tracers: Enriching our perspectives and questions on sources, fates, rates, and pathways of major elements in aquatic systems. *Limnology and Oceanography*, **2019**, 64, 950-981	4.8	41
50	Macrophyte Abundance in Waquoit Bay: Effects of Land-Derived Nitrogen Loads on Seasonal and Multi-Year Biomass Patterns. *Estuaries and Coasts*, **2008**, 31, 532-541	2.8	38
49	Use of isotopic signatures to assess the food web in a tropical shallow marine ecosystem of Southeastern Brazil. *Aquatic Ecology*, **2006**, 40, 381-390	1.9	38
48	Assimilation and partitioning of prey nitrogen within two anthozoans and their endosymbiotic zooxanthellae. *Marine Ecology - Progress Series*, **2003**, 262, 125-136	2.6	38

47	Watershed Export Events and Ecosystem Responses in the Mission-Aransas National Estuarine Research Reserve, South Texas. *Estuaries and Coasts*, **2012**, 35, 1468-1485	2.8	37
46	A new river discharge and river temperature climatology data set for the pan-Arctic region. *Ocean Modelling*, **2015**, 88, 1-15	3	36
45	Landscape matters: Predicting the biogeochemical effects of permafrost thaw on aquatic networks with a state factor approach. *Permafrost and Periglacial Processes*, **2020**, 31, 358-370	4.2	36
44	Groundwater as a major source of dissolved organic matter to Arctic coastal waters. *Nature Communications*, **2020**, 11, 1479	17.4	36
43	Late season mobilization of trace metals in two small Alaskan arctic watersheds as a proxy for landscape scale permafrost active layer dynamics. *Chemical Geology*, **2014**, 381, 180-193	4.2	35
42	Tissue-specific isotope turnover and discrimination factors are affected by diet quality and lipid content in an omnivorous consumer. *Journal of Experimental Marine Biology and Ecology*, **2016**, 479, 35-45	2.1	34
41	Climate Change Impacts on the Hydrology and Biogeochemistry of Arctic Rivers1-26		33
40	Egg boons: central components of marine fatty acid food webs. *Ecology*, **2015**, 96, 362-72	4.6	32
39	Do high Arctic coastal food webs rely on a terrestrial carbon subsidy?. *Food Webs*, **2018**, 15, e00081	1.8	31
38	Mercury Export from Arctic Great Rivers. *Environmental Science & Technology*, **2020**, 54, 4140-4148	10.3	30
37	Spatial and temporal shifts in stable isotope values of the bottom-dwelling shrimp Nauticaris marionis at the sub-Antarctic archipelago. *Marine Biology*, **2004**, 144, 317-325	2.5	29
36	Isotopic signals (18O, 2H, 3H) of six major rivers draining the pan-Arctic watershed. *Global Biogeochemical Cycles*, **2012**, 26, n/a-n/a	5.9	26
35	Seasonal changes in quantity and composition of suspended particulate organic matter in lagoons of the Alaskan Beaufort Sea. *Marine Ecology - Progress Series*, **2015**, 527, 31-45	2.6	21
34	A model of the Arctic Ocean carbon cycle. *Journal of Geophysical Research*, **2011**, 116,		21
33	Watershed slope as a predictor of fluvial dissolved organic matter and nitrate concentrations across geographical space and catchment size in the Arctic. *Environmental Research Letters*, **2018**, 13, 104015	6.2	21
32	Coordination and Sustainability of River Observing Activities in the Arctic. *Arctic*, **2015**, 68, 59	2.1	20
31	Salinity and Temperature Regimes in Eastern Alaskan Beaufort Sea Lagoons in Relation to Source Water Contributions. *Estuaries and Coasts*, **2017**, 40, 50-62	2.8	19
30	Constraining seasonal active layer dynamics and chemical weathering reactions occurring in North Slope Alaskan watersheds with major ion and isotope (δ34SSO4, δ13CDIC, 87Sr/86Sr, δ44/40Ca, and δ44/42Ca) measurements. *Geochimica Et Cosmochimica Acta*, **2017**, 217, 399-420	5.5	17

29	Seasonality of dissolved nitrogen from spring melt to fall freezeup in Alaskan Arctic tundra and mountain streams. *Journal of Geophysical Research G: Biogeosciences*, **2017**, 122, 1718-1737	3.7	17
28	Seasonal and Geographic Variation in Dissolved Carbon Biogeochemistry of Rivers Draining to the Canadian Arctic Ocean and Hudson Bay. *Journal of Geophysical Research G: Biogeosciences*, **2018**, 123, 3371-3386	3.7	16
27	Strong Seasonality in Arctic Estuarine Microbial Food Webs. *Frontiers in Microbiology*, **2019**, 10, 2628	5.7	15
26	Freshwater Contributions and Nitrogen Sources in a South Texas Estuarine Ecosystem: a Time-Integrated Perspective from Stable Isotopic Ratios in the Eastern Oyster (Crassostrea virginica). *Estuaries and Coasts*, **2017**, 40, 1314-1324	2.8	14
25	Seasonal trophic linkages in Arctic marine invertebrates assessed via fatty acids and compound-specific stable isotopes. *Ecosphere*, **2016**, 7, e01429	3.1	14
24	Changes in N and C Stable Isotope Signatures of Particulate Organic Matter and Ribbed Mussels in Estuaries Subject to Different Nutrient Loading. *Biological Bulletin*, **1996**, 191, 329-330	1.5	12
23	Macrophyte Abundances in Waquoit Bay Estuaries Subject to Different Nutrient Loads and the Potential Role of Fringing Salt Marsh in Groundwater Nitrogen Interception. *Biological Bulletin*, **1995**, 189, 255-256	1.5	12
22	Role of Salt Marshes as Part of Coastal Landscapes **2002**, 23-36		11
21	A GIS Framework for Regional Modeling of Riverine Nitrogen Transport: Case Study, San Antonio and Guadalupe Basins. *Journal of the American Water Resources Association*, **2016**, 52, 1-15	2.1	11
20	Residence-time-based classification of surface water systems. *Water Resources Research*, **2017**, 53, 5567-5584	3.4	10
19	Invertebrate Response to Nutrient-Induced Changes in Macrophyte Assemblages in Waquoit Bay. *Biological Bulletin*, **1995**, 189, 241-242	1.5	9
18	Fatty-acid biomarkers and tissue-specific turnover: validation from a controlled feeding study in juvenile Atlantic croaker Micropogonias undulatus. *Journal of Fish Biology*, **2016**, 89, 2004-2023	1.9	9
17	Multidecadal climate-induced changes in Arctic tundra lake geochemistry and geomorphology. *Limnology and Oceanography*, **2019**, 64, S179	4.8	9
16	Comparing performance of five nutrient phytoplankton zooplankton (NPZ) models in coastal lagoons. *Ecological Modelling*, **2014**, 277, 13-26	3	8
15	The Effect of Nutrient Loading on the Growth Rate of Two Species of Bivalves, Mercenaria mercenaria and Mya arenaria, in Estuaries of Waquoit Bay, Massachusetts. *Biological Bulletin*, **1994**, 187, 281	1.5	7
14	Defining a Riverine Tidal Freshwater Zone and Its Spatiotemporal Dynamics. *Water Resources Research*, **2020**, 56, e2019WR026619	5.4	6
13	Absence of ice-bonded permafrost beneath an Arctic lagoon revealed by electrical geophysics. *Science Advances*, **2020**, 6,	14.3	6
12	Water quality modelling in the San Antonio River Basin driven by radar rainfall data. *Geomatics, Natural Hazards and Risk*, **2016**, 7, 953-970	3.6	5

List of Publications

11	Pan-Arctic Riverine Dissolved Organic Matter: Synchronous Molecular Stability, Shifting Sources and Subsidies. *Global Biogeochemical Cycles*, **2021**, 35, e2020GB006871	5.9	5
10	Impact of nitrogen chemical form on the isotope signature and toxicity of a marine dinoflagellate. *Marine Ecology - Progress Series*, **2018**, 602, 63-76	2.6	4
9	The Growth and Consumption of Macroalgae in Estuaries: The Role of Invertebrate Grazers Along a Nutrient Gradient in Waquoit Bay, Massachusetts. *Biological Bulletin*, **1994**, 187, 279-280	1.5	4
8	Growth Rates of Ribbed Mussels in Six Estuaries Subject to Different Nutrient Loads. *Biological Bulletin*, **1996**, 191, 327-328	1.5	3
7	An expanded rating curve model to estimate river discharge during tidal influences across the progressive-mixed-standing wave systems. *PLoS ONE*, **2019**, 14, e0225758	3.7	2
6	Geochemistry of Coastal Permafrost and Erosion-Driven Organic Matter Fluxes to the Beaufort Sea Near Drew Point, Alaska. *Frontiers in Earth Science*, **2021**, 8,	3.5	1
5	Modeling Terrestrial Dissolved Organic Carbon Loading to Western Arctic Rivers. *Journal of Geophysical Research G: Biogeosciences*,e2021JG006420	3.7	1
4	Seasonality of dissolved organic matter in lagoon ecosystems along the Alaska Beaufort Sea coast. *Limnology and Oceanography*, **2021**, 66, 4299	4.8	0
3	Tidal Freshwater Zones as Hotspots for Biogeochemical Cycling: Sediment Organic Matter Decomposition in the Lower Reaches of Two South Texas Rivers. *Estuaries and Coasts*, **2021**, 44, 722-733	2.8	0
2	The Genomic Capabilities of Microbial Communities Track Seasonal Variation in Environmental Conditions of Arctic Lagoons. *Frontiers in Microbiology*, **2021**, 12, 601901	5.7	
1	Multidecadal declines in particulate mercury and sediment export from Russian rivers in the pan-Arctic basin.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2119857119	11.5	