

Merrin L Macrae

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

2,039
citations

293460

24
h-index

299063

42
g-index

73
all docs

73
docs citations

73
times ranked

2021
citing authors

#	ARTICLE	IF	CITATIONS
1	Assessment of effective LAI and water use efficiency using Eddy Covariance data. <i>Science of the Total Environment</i> , 2022, 802, 149628.	3.9	4
2	P&FLUX: A phosphorus budget dataset spanning diverse agricultural production systems in the United States and Canada. <i>Journal of Environmental Quality</i> , 2022, 51, 451-461.	1.0	4
3	Influence of climate, topography, and soil type on soil extractable phosphorus in croplands of northern glacial-derived landscapes. <i>Journal of Environmental Quality</i> , 2022, 51, 731-744.	1.0	2
4	Carbon and Nutrient Stoichiometric Relationships in the Soil-Plant Systems of Disturbed Boreal Forest Peatlands within Athabasca Oil Sands Region, Canada. <i>Forests</i> , 2022, 13, 865.	0.9	1
5	Deeper burning in a boreal fen peatland 1-year post-wildfire accelerates recovery trajectory of carbon dioxide uptake. <i>Ecohydrology</i> , 2021, 14, e2277.	1.1	6
6	One size does not fit all: Toward regional conservation practice guidance to reduce phosphorus loss risk in the Lake Erie watershed. <i>Journal of Environmental Quality</i> , 2021, 50, 529-546.	1.0	38
7	Assessment of Different Water Use Efficiency Calculations for Dominant Forage Crops in the Great Lakes Basin. <i>Agriculture (Switzerland)</i> , 2021, 11, 739.	1.4	3
8	Phosphorus runoff from Canadian agricultural land: A cross-region synthesis of edge-of-field results. <i>Agricultural Water Management</i> , 2021, 255, 107030.	2.4	18
9	Phosphorus runoff from Canadian agricultural land: A dataset for 30 experimental fields. <i>Data in Brief</i> , 2021, 38, 107405.	0.5	2
10	Contribution of bunker silo effluent discharged via a riparian zone to watershed phosphorus loads. <i>Journal of Great Lakes Research</i> , 2021, 47, 1296-1304.	0.8	1
11	Advances in the simulation of nutrient dynamics in cold climate agricultural basins: Developing new nitrogen and phosphorus modules for the Cold Regions Hydrological Modelling Platform. <i>Journal of Hydrology</i> , 2021, 603, 126901.	2.3	7
12	Assessment of Impacts of Climate Change on Tile Discharge and Nitrogen Yield Using the DRAINMOD Model. <i>Hydrology</i> , 2021, 8, 1.	1.3	12
13	Environmental Controls on CO ₂ Exchange along a Salinity Gradient in a Saline Boreal Fen in the Athabasca Oil Sands Region. <i>Wetlands</i> , 2020, 40, 1353-1366.	0.7	2
14	Among-site variability in environmental and management characteristics: Effect on nutrient loss in agricultural tile drainage. <i>Journal of Great Lakes Research</i> , 2020, 46, 486-499.	0.8	7
15	Contribution of preferential flow to tile drainage varies spatially and temporally. <i>Vadose Zone Journal</i> , 2020, 19, e20043.	1.3	15
16	Biogeochemical and climate drivers of wetland phosphorus and nitrogen release: Implications for nutrient legacies and eutrophication risk. <i>Journal of Environmental Quality</i> , 2020, 49, 1703-1716.	1.0	24
17	Growing season CO ₂ exchange and evapotranspiration dynamics among thawing and intact permafrost landforms in the Western Hudson Bay lowlands. <i>Permafrost and Periglacial Processes</i> , 2020, 31, 509-523.	1.5	2
18	Agricultural Water Quality in Cold Climates: Processes, Drivers, Management Options, and Research Needs. <i>Journal of Environmental Quality</i> , 2019, 48, 792-802.	1.0	36

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19	Winter Phosphorus Release from Cover Crops and Linkages with Runoff Chemistry. <i>Journal of Environmental Quality</i> , 2019, 48, 907-914.	1.0	32
20	Impacts of Cover Crops and Crop Residues on Phosphorus Losses in Cold Climates: A Review. <i>Journal of Environmental Quality</i> , 2019, 48, 850-868.	1.0	62
21	Increased Peatland Nutrient Availability Following the Fort McMurray Horse River Wildfire. <i>Diversity</i> , 2019, 11, 142.	0.7	11
22	Seasonal nutrient export dynamics in a mixed land use subwatershed of the Grand River, Ontario, Canada. <i>Journal of Great Lakes Research</i> , 2019, 45, 1171-1181.	0.8	15
23	Evaluating Hydrologic Response in Tile-Drained Landscapes: Implications for Phosphorus Transport. <i>Journal of Environmental Quality</i> , 2019, 48, 1347-1355.	1.0	28
24	Nutrient Leaching in Soil Affected by Fertilizer Application and Frozen Ground. <i>Vadose Zone Journal</i> , 2019, 18, 1-13.	1.3	25
25	Differences in preferential flow with antecedent moisture conditions and soil texture: Implications for subsurface P transport. <i>Hydrological Processes</i> , 2019, 33, 2068-2079.	1.1	48
26	Can Improved Flow Partitioning in Hydrologic Models Increase Biogeochemical Predictability?. <i>Water Resources Research</i> , 2019, 55, 2939-2960.	1.7	12
27	Near-Surface Soils as a Source of Phosphorus in Snowmelt Runoff from Cropland. <i>Journal of Environmental Quality</i> , 2019, 48, 921-930.	1.0	26
28	Agricultural Edge-of-Field Phosphorus Losses in Ontario, Canada: Importance of the Nongrowing Season in Cold Regions. <i>Journal of Environmental Quality</i> , 2019, 48, 813-821.	1.0	38
29	Hydroclimatic controls on runoff activation in an artificially drained, near-level vertisolic clay landscape in a Prairie climate. <i>Hydrological Processes</i> , 2019, 33, 602-615.	1.1	10
30	Ecohydrological functioning of an upland undergoing reclamation on post-mining landscape of the Athabasca oil sands region, Canada. <i>Ecohydrology</i> , 2018, 11, e1941.	1.1	6
31	Climate-induced changes in nutrient transformations across landscape units in a thermokarst subarctic peatland. <i>Arctic, Antarctic, and Alpine Research</i> , 2018, 50, .	0.4	7
32	Preferential Flow in Vertisolic Soils with and without Organic Amendments. <i>Agricultural and Environmental Letters</i> , 2018, 3, 180018.	0.8	12
33	Dominant glacial landforms of the lower Great Lakes region exhibit different soil phosphorus chemistry and potential risk for phosphorus loss. <i>Journal of Great Lakes Research</i> , 2018, 44, 1057-1067.	0.8	26
34	Nutrient Release from Living and Terminated Cover Crops Under Variable Freeze-Thaw Cycles. <i>Agronomy Journal</i> , 2018, 110, 1036-1045.	0.9	33
35	Supply and Transport Limitations on Phosphorus Losses from Agricultural Fields in the Lower Great Lakes Region, Canada. <i>Journal of Environmental Quality</i> , 2018, 47, 96-105.	1.0	29
36	Hydroclimatic influences and physiographic controls on phosphorus dynamics in prairie pothole wetlands. <i>Science of the Total Environment</i> , 2018, 645, 1410-1424.	3.9	17

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37	Seasonal dynamics in shallow freshwater ponds—peatland hydrochemical interactions in a subarctic permafrost environment. <i>Hydrological Processes</i> , 2017, 31, 462-475.	1.1	10
38	Release of phosphorus from crop residue and cover crops over the non-growing season in a cool temperate region. <i>Agricultural Water Management</i> , 2017, 189, 39-51.	2.4	54
39	Long-term precipitation-driven salinity change in a saline, peat-forming wetland in the Athabasca Oil Sands Region, Canada: a diatom-based paleolimnological study. <i>Journal of Paleolimnology</i> , 2017, 58, 533-550.	0.8	14
40	Effect of a semi-permanent road on N, P, and CO ₂ dynamics in a poor fen on the Western Boreal Plain, Canada. <i>Ecohydrology</i> , 2017, 10, e1874.	1.1	16
41	Potential phosphorus mobilization from above-soil winter vegetation assessed from laboratory water extractions following freeze-thaw cycles. <i>Canadian Water Resources Journal</i> , 2017, 42, 276-288.	0.5	16
42	Capturing temporal and spatial variability in the chemistry of shallow permafrost ponds. <i>Biogeosciences</i> , 2017, 14, 5471-5485.	1.3	4
43	Seasonal and event-based drivers of runoff and phosphorus export through agricultural tile drains under sandy loam soil in a cool temperate region. <i>Hydrological Processes</i> , 2016, 30, 2644-2656.	1.1	41
44	Annual and seasonal phosphorus export in surface runoff and tile drainage from agricultural fields with cold temperate climates. <i>Journal of Great Lakes Research</i> , 2016, 42, 1271-1280.	0.8	63
45	Preliminary assessment of greenhouse gas emissions from a constructed fen on post-mining landscape in the Athabasca oil sands region, Alberta, Canada. <i>Ecological Engineering</i> , 2016, 95, 119-128.	1.6	16
46	Spatial variation in nutrient dynamics among five different peatland types in the Alberta oil sands region. <i>Ecohydrology</i> , 2016, 9, 688-699.	1.1	31
47	Effects of tillage practices on phosphorus transport in tile drain effluent under sandy loam agricultural soils in Ontario, Canada. <i>Journal of Great Lakes Research</i> , 2016, 42, 1260-1270.	0.8	27
48	Above and below-ground nutrient cycling: a criteria for assessing the biogeochemical functioning of a constructed fen. <i>Applied Soil Ecology</i> , 2016, 98, 177-194.	2.1	17
49	Phosphorus Transport in Agricultural Subsurface Drainage: A Review. <i>Journal of Environmental Quality</i> , 2015, 44, 467-485.	1.0	358
50	Uncertainty in nutrient loads from tile-drained landscapes: Effect of sampling frequency, calculation algorithm, and compositing strategy. <i>Journal of Hydrology</i> , 2015, 530, 306-316.	2.3	90
51	Limnological regime shifts caused by climate warming and Lesser Snow Goose population expansion in the western Hudson Bay Lowlands (Manitoba, Canada). <i>Ecology and Evolution</i> , 2015, 5, 921-939.	0.8	21
52	Avian-Driven Modification of Seasonal Carbon Cycling at a Tundra Pond in the Hudson Bay Lowlands (Northern Manitoba, Canada). <i>Arctic, Antarctic, and Alpine Research</i> , 2014, 46, 206-217.	0.4	12
53	Observed and Projected Climate Change in the Churchill Region of the Hudson Bay Lowlands and Implications for Pond Sustainability. <i>Arctic, Antarctic, and Alpine Research</i> , 2014, 46, 272-285.	0.4	22
54	Hydrological Connectivity and Basin Morphometry Influence Seasonal Water-Chemistry Variations in Tundra Ponds of the Northwestern Hudson Bay Lowlands. <i>Arctic, Antarctic, and Alpine Research</i> , 2014, 46, 218-235.	0.4	16

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55	Nutrient Uptake and Short-Term Responses of Phytoplankton and Benthic Algal Communities from a Subarctic Pond to Experimental Nutrient Enrichment in Microcosms. <i>Arctic, Antarctic, and Alpine Research</i> , 2014, 46, 191-205.	0.4	20
56	Nutrient mineralisation and microbial functional diversity in a restored bog approach natural conditions 10 years post restoration. <i>Soil Biology and Biochemistry</i> , 2013, 64, 37-47.	4.2	46
57	Effect of water table drawdown on peatland nutrient dynamics: implications for climate change. <i>Biogeochemistry</i> , 2013, 112, 661-676.	1.7	78
58	Divergent hydrological responses to 20th century climate change in shallow tundra ponds, western Hudson Bay Lowlands. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	32
59	Subsurface Mobilization of Phosphorus in an Agricultural Riparian Zone in Response to Flooding from an Upstream Reservoir. <i>Canadian Water Resources Journal</i> , 2011, 36, 293-311.	0.5	9
60	Microtopographical and canopy cover controls on moss carbon dioxide exchange in a western Boreal Plain peatland. <i>Ecohydrology</i> , 2011, 4, 115-129.	1.1	17
61	Spatial variability in surface N ₂ O fluxes across a riparian zone and relationships with soil environmental conditions and nutrient supply. <i>Agriculture, Ecosystems and Environment</i> , 2010, 138, 1-9.	2.5	27
62	Influence of antecedent hydrologic conditions on patterns of hydrochemical export from a first-order agricultural watershed in Southern Ontario, Canada. <i>Journal of Hydrology</i> , 2010, 389, 101-110.	2.3	72
63	Advances in Canadian Research Coupling Hydrology and Water Quality, 2003-2007. <i>Canadian Water Resources Journal</i> , 2009, 34, 187-194.	0.5	2
64	Spatial variability of CO ₂ exchange for riparian and open grasslands within a first-order agricultural basin in Southern Ontario. <i>Agriculture, Ecosystems and Environment</i> , 2008, 125, 137-147.	2.5	14
65	Intra-annual variability in the contribution of tile drains to basin discharge and phosphorus export in a first-order agricultural catchment. <i>Agricultural Water Management</i> , 2007, 92, 171-182.	2.4	117
66	Riparian zone equilibrium and actual evapotranspiration in a first order agricultural catchment in Southern Ontario, Canada. <i>Agricultural Water Management</i> , 2006, 86, 240-248.	2.4	13
67	Relation of soil-, surface-, and ground-water distributions of inorganic nitrogen with topographic position in harvested and unharvested portions of an aspen-dominated catchment in the Boreal Plain. <i>Canadian Journal of Forest Research</i> , 2006, 36, 2090-2103.	0.8	19
68	Soil, surface water and ground water phosphorus relationships in a partially harvested Boreal Plain aspen catchment. <i>Forest Ecology and Management</i> , 2005, 206, 315-329.	1.4	35
69	Risk analysis of dissolved organic matter-mediated ultraviolet B exposure in Canadian inland waters. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2004, 61, 2511-2521.	0.7	35
70	Long-term carbon storage and hydrological control of CO ₂ exchange in tundra ponds in the Hudson Bay Lowland. <i>Hydrological Processes</i> , 2004, 18, 2051-2069.	1.1	30
71	Phosphate retention in an agricultural stream using experimental additions of phosphate. <i>Hydrological Processes</i> , 2003, 17, 3649-3663.	1.1	23
72	Vegetation-related influences on carbon and water dynamics of two temperate forage crops. <i>Agronomy Journal</i> , 0, , .	0.9	1