Merrin L Macrae

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Assessment of effective LAI and water use efficiency using Eddy Covariance data. Science of the Total Environment, 2022, 802, 149628.	8.0	4
2	Pâ€FLUX: A phosphorus budget dataset spanning diverse agricultural production systems in the United States and Canada. Journal of Environmental Quality, 2022, 51, 451-461.	2.0	4
3	Influence of climate, topography, and soil type on soil extractable phosphorus in croplands of northern glacialâ€derived landscapes. Journal of Environmental Quality, 2022, 51, 731-744.	2.0	2
4	Carbon and Nutrient Stoichiometric Relationships in the Soil–Plant Systems of Disturbed Boreal Forest Peatlands within Athabasca Oil Sands Region, Canada. Forests, 2022, 13, 865.	2.1	1
5	Deeper burning in a boreal fen peatland 1â€year postâ€wildfire accelerates recovery trajectory of carbon dioxide uptake. Ecohydrology, 2021, 14, e2277.	2.4	6
6	One size does not fit all: Toward regional conservation practice guidance to reduce phosphorus loss risk in the Lake Erie watershed. Journal of Environmental Quality, 2021, 50, 529-546.	2.0	38
7	Assessment of Different Water Use Efficiency Calculations for Dominant Forage Crops in the Great Lakes Basin. Agriculture (Switzerland), 2021, 11, 739.	3.1	3
8	Phosphorus runoff from Canadian agricultural land: A cross-region synthesis of edge-of-field results. Agricultural Water Management, 2021, 255, 107030.	5.6	18
9	Phosphorus runoff from Canadian agricultural land: A dataset for 30 experimental fields. Data in Brief, 2021, 38, 107405.	1.0	2
10	Contribution of bunker silo effluent discharged via a riparian zone to watershed phosphorus loads. Journal of Great Lakes Research, 2021, 47, 1296-1304.	1.9	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. Journal of Hydrology, 2021, 603, 126901.	5.4	7
12	Assessment of Impacts of Climate Change on Tile Discharge and Nitrogen Yield Using the DRAINMOD Model. Hydrology, 2021, 8, 1.	3.0	12
13	Environmental Controls on CO2 Exchange along a Salinity Gradient in a Saline Boreal Fen in the Athabasca Oil Sands Region. Wetlands, 2020, 40, 1353-1366.	1.5	2
14	Among-site variability in environmental and management characteristics: Effect on nutrient loss in agricultural tile drainage. Journal of Great Lakes Research, 2020, 46, 486-499.	1.9	7
15	Contribution of preferential flow to tile drainage varies spatially and temporally. Vadose Zone Journal, 2020, 19, e20043.	2.2	15
16	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.	2.0	24
17	Growing season CO ₂ exchange and evapotranspiration dynamics among thawing and intact permafrost landforms in the Western Hudson Bay lowlands. Permafrost and Periglacial Processes, 2020, 31, 509-523.	3.4	2
18	Agricultural Water Quality in Cold Climates: Processes, Drivers, Management Options, and Research Needs. Journal of Environmental Quality, 2019, 48, 792-802.	2.0	36

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19	Winter Phosphorus Release from Cover Crops and Linkages with Runoff Chemistry. Journal of Environmental Quality, 2019, 48, 907-914.	2.0	32
20	Impacts of Cover Crops and Crop Residues on Phosphorus Losses in Cold Climates: A Review. Journal of Environmental Quality, 2019, 48, 850-868.	2.0	62
21	Increased Peatland Nutrient Availability Following the Fort McMurray Horse River Wildfire. Diversity, 2019, 11, 142.	1.7	11
22	Seasonal nutrient export dynamics in a mixed land use subwatershed of the Grand River, Ontario, Canada. Journal of Great Lakes Research, 2019, 45, 1171-1181.	1.9	15
23	Evaluating Hydrologic Response in Tileâ€Drained Landscapes: Implications for Phosphorus Transport. Journal of Environmental Quality, 2019, 48, 1347-1355.	2.0	28
24	Nutrient Leaching in Soil Affected by Fertilizer Application and Frozen Ground. Vadose Zone Journal, 2019, 18, 1-13.	2.2	25
25	Differences in preferential flow with antecedent moisture conditions and soil texture: Implications for subsurface P transport. Hydrological Processes, 2019, 33, 2068-2079.	2.6	48
26	Can Improved Flow Partitioning in Hydrologic Models Increase Biogeochemical Predictability?. Water Resources Research, 2019, 55, 2939-2960.	4.2	12
27	Nearâ€Surface Soils as a Source of Phosphorus in Snowmelt Runoff from Cropland. Journal of Environmental Quality, 2019, 48, 921-930.	2.0	26
28	Agricultural Edgeâ€ofâ€Field Phosphorus Losses in Ontario, Canada: Importance of the Nongrowing Season in Cold Regions. Journal of Environmental Quality, 2019, 48, 813-821.	2.0	38
29	Hydroclimatic controls on runoff activation in an artificially drained, nearâ€level vertisolic clay landscape in a Prairie climate. Hydrological Processes, 2019, 33, 602-615.	2.6	10
30	Ecohydrological functioning of an upland undergoing reclamation on postâ€mining landscape of the Athabasca oil sands region, Canada. Ecohydrology, 2018, 11, e1941.	2.4	6
31	Climate-induced changes in nutrient transformations across landscape units in a thermokarst subarctic peatland. Arctic, Antarctic, and Alpine Research, 2018, 50, .	1.1	7
32	Preferential Flow in Vertisolic Soils with and without Organic Amendments. Agricultural and Environmental Letters, 2018, 3, 180018.	1.2	12
33	Dominant glacial landforms of the lower Great Lakes region exhibit different soil phosphorus chemistry and potential risk for phosphorus loss. Journal of Great Lakes Research, 2018, 44, 1057-1067.	1.9	26
34	Nutrient Release from Living and Terminated Cover Crops Under Variable Freeze–Thaw Cycles. Agronomy Journal, 2018, 110, 1036-1045.	1.8	33
35	Supply and Transport Limitations on Phosphorus Losses from Agricultural Fields in the Lower Great Lakes Region, Canada. Journal of Environmental Quality, 2018, 47, 96-105.	2.0	29
36	Hydroclimatic influences and physiographic controls on phosphorus dynamics in prairie pothole wetlands. Science of the Total Environment, 2018, 645, 1410-1424.	8.0	17

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37	Seasonal dynamics in shallow freshwater pondâ€peatland hydrochemical interactions in a subarctic permafrost environment. Hydrological Processes, 2017, 31, 462-475.	2.6	10
38	Release of phosphorus from crop residue and cover crops over the non-growing season in a cool temperate region. Agricultural Water Management, 2017, 189, 39-51.	5.6	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. Journal of Paleolimnology, 2017, 58, 533-550.	1.6	14
40	Effect of a semiâ€permanent road on N, P, and CO ₂ dynamics in a poor fen on the Western Boreal Plain, Canada. Ecohydrology, 2017, 10, e1874.	2.4	16
41	Potential phosphorus mobilization from above-soil winter vegetation assessed from laboratory water extractions following freeze–thaw cycles. Canadian Water Resources Journal, 2017, 42, 276-288.	1.2	16
42	Capturing temporal and spatial variability in the chemistry of shallow permafrost ponds. Biogeosciences, 2017, 14, 5471-5485.	3.3	4
43	Seasonal and eventâ€based drivers of runoff and phosphorus export through agricultural tile drains under sandy loam soil in a cool temperate region. Hydrological Processes, 2016, 30, 2644-2656.	2.6	41
44	Annual and seasonal phosphorus export in surface runoff and tile drainage from agricultural fields with cold temperate climates. Journal of Great Lakes Research, 2016, 42, 1271-1280.	1.9	63
45	Preliminary assessment of greenhouse gas emissions from a constructed fen on post-mining landscape in the Athabasca oil sands region, Alberta, Canada. Ecological Engineering, 2016, 95, 119-128.	3.6	16
46	Spatial variation in nutrient dynamics among five different peatland types in the Alberta oil sands region. Ecohydrology, 2016, 9, 688-699.	2.4	31
47	Effects of tillage practices on phosphorus transport in tile drain effluent under sandy loam agricultural soils in Ontario, Canada. Journal of Great Lakes Research, 2016, 42, 1260-1270.	1.9	27
48	Above and below-ground nutrient cycling: a criteria for assessing the biogeochemical functioning of a constructed fen. Applied Soil Ecology, 2016, 98, 177-194.	4.3	17
49	Phosphorus Transport in Agricultural Subsurface Drainage: A Review. Journal of Environmental Quality, 2015, 44, 467-485.	2.0	358
50	Uncertainty in nutrient loads from tile-drained landscapes: Effect of sampling frequency, calculation algorithm, and compositing strategy. Journal of Hydrology, 2015, 530, 306-316.	5.4	90
51	Limnological regime shifts caused by climate warming and Lesser Snow Goose population expansion in the western Hudson Bay Lowlands (Manitoba, Canada). Ecology and Evolution, 2015, 5, 921-939.	1.9	21
52	Avian-Driven Modification of Seasonal Carbon Cycling at a Tundra Pond in the Hudson Bay Lowlands (Northern Manitoba, Canada). Arctic, Antarctic, and Alpine Research, 2014, 46, 206-217.	1.1	12
53	Observed and Projected Climate Change in the Churchill Region of the Hudson Bay Lowlands and Implications for Pond Sustainability. Arctic, Antarctic, and Alpine Research, 2014, 46, 272-285.	1.1	22
54	Hydrological Connectivity and Basin Morphometry Influence Seasonal Water-Chemistry Variations in Tundra Ponds of the Northwestern Hudson Bay Lowlands. Arctic, Antarctic, and Alpine Research, 2014, 46, 218-235.	1.1	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. Arctic, Antarctic, and Alpine Research, 2014, 46, 191-205.	1.1	20
56	Nutrient mineralisation and microbial functional diversity in a restored bog approach natural conditions 10 years post restoration. Soil Biology and Biochemistry, 2013, 64, 37-47.	8.8	46
57	Effect of water table drawdown on peatland nutrient dynamics: implications for climate change. Biogeochemistry, 2013, 112, 661-676.	3.5	78
58	Divergent hydrological responses to 20th century climate change in shallow tundra ponds, western Hudson Bay Lowlands. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	32
59	Subsurface Mobilization of Phosphorus in an Agricultural Riparian Zone in Response to Flooding from an Upstream Reservoir. Canadian Water Resources Journal, 2011, 36, 293-311.	1.2	9
60	Microtopographical and canopy cover controls on moss carbon dioxide exchange in a western Boreal Plain peatland. Ecohydrology, 2011, 4, 115-129.	2.4	17
61	Spatial variability in surface N2O fluxes across a riparian zone and relationships with soil environmental conditions and nutrient supply. Agriculture, Ecosystems and Environment, 2010, 138, 1-9.	5.3	27
62	Influence of antecedent hydrologic conditions on patterns of hydrochemical export from a first-order agricultural watershed in Southern Ontario, Canada. Journal of Hydrology, 2010, 389, 101-110.	5.4	72
63	Advances in Canadian Research Coupling Hydrology and Water Quality, 2003-2007. Canadian Water Resources Journal, 2009, 34, 187-194.	1.2	2
64	Spatial variability of CO2 exchange for riparian and open grasslands within a first-order agricultural basin in Southern Ontario. Agriculture, Ecosystems and Environment, 2008, 125, 137-147.	5.3	14
65	Intra-annual variability in the contribution of tile drains to basin discharge and phosphorus export in a first-order agricultural catchment. Agricultural Water Management, 2007, 92, 171-182.	5.6	117
66	Riparian zone equilibrium and actual evapotranspiration in a first order agricultural catchment in Southern Ontario, Canada. Agricultural Water Management, 2006, 86, 240-248.	5.6	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. Canadian Journal of Forest Research, 2006, 36, 2090-2103.	1.7	19
68	Soil, surface water and ground water phosphorus relationships in a partially harvested Boreal Plain aspen catchment. Forest Ecology and Management, 2005, 206, 315-329.	3.2	35
69	Risk analysis of dissolved organic matter-mediated ultraviolet B exposure in Canadian inland waters. Canadian Journal of Fisheries and Aquatic Sciences, 2004, 61, 2511-2521.	1.4	35
70	Long-term carbon storage and hydrological control of CO2 exchange in tundra ponds in the Hudson Bay Lowland. Hydrological Processes, 2004, 18, 2051-2069.	2.6	30
71	Phosphate retention in an agricultural stream using experimental additions of phosphate. Hydrological Processes, 2003, 17, 3649-3663.	2.6	23
72	Vegetationâ€related influences on carbon and water dynamics of two temperate forage crops. Agronomy Journal, 0, , .	1.8	1