

# Graham K Macdonald

## List of Publications by Year in descending order

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Version: 2024-02-01

48  
papers

6,642  
citations

186265

28  
h-index

206112

48  
g-index

59  
all docs

59  
docs citations

59  
times ranked

9991  
citing authors

#	ARTICLE	IF	CITATIONS
1	Climate variation explains a third of global crop yield variability. <i>Nature Communications</i> , 2015, 6, 5989.	12.8	1,138
2	Agronomic phosphorus imbalances across the world's croplands. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 3086-3091.	7.1	654
3	Leverage points for improving global food security and the environment. <i>Science</i> , 2014, 345, 325-328.	12.6	584
4	The Global Food-Energy-Water Nexus. <i>Reviews of Geophysics</i> , 2018, 56, 456-531.	23.0	446
5	An index-based framework for assessing patterns and trends in river fragmentation and flow regulation by global dams at multiple scales. <i>Environmental Research Letters</i> , 2015, 10, 015001.	5.2	439
6	Greenhouse gas emissions intensity of global croplands. <i>Nature Climate Change</i> , 2017, 7, 63-68.	18.8	414
7	Untangling the Environmentalist's Paradox: Why Is Human Well-being Increasing as Ecosystem Services Degrade?. <i>BioScience</i> , 2010, 60, 576-589.	4.9	358
8	Social-ecological and technological factors moderate the value of urban nature. <i>Nature Sustainability</i> , 2019, 2, 29-38.	23.7	293
9	The persistent threat of emerging plant disease pandemics to global food security. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	261
10	Integrating legacy soil phosphorus into sustainable nutrient management strategies for future food, bioenergy and water security. <i>Nutrient Cycling in Agroecosystems</i> , 2016, 104, 393-412.	2.2	199
11	Realizing Resilient Food Systems. <i>BioScience</i> , 2016, 66, 600-610.	4.9	186
12	Rethinking Agricultural Trade Relationships in an Era of Globalization. <i>BioScience</i> , 2015, 65, 275-289.	4.9	179
13	Progress towards sustainable intensification in China challenged by land-use change. <i>Nature Sustainability</i> , 2018, 1, 304-313.	23.7	151
14	Environmental health impacts of feeding crops to farmed fish. <i>Environment International</i> , 2016, 91, 201-214.	10.0	138
15	The influence of time, soil characteristics, and land-use history on soil phosphorus legacies: a global meta-analysis. <i>Global Change Biology</i> , 2012, 18, 1904-1917.	9.5	107
16	A tradeoff frontier for global nitrogen use and cereal production. <i>Environmental Research Letters</i> , 2014, 9, 054002.	5.2	100
17	Leveraging total factor productivity growth for sustainable and resilient farming. <i>Nature Sustainability</i> , 2019, 2, 22-28.	23.7	93
18	Big data has big potential for applications to climate change adaptation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 10729-10732.	7.1	91

#	ARTICLE	IF	CITATIONS
19	Feeding the Corn Belt: Opportunities for phosphorus recycling in U.S. agriculture. <i>Science of the Total Environment</i> , 2016, 542, 1117-1126.	8.0	84
20	Embodied phosphorus and the global connections of United States agriculture. <i>Environmental Research Letters</i> , 2012, 7, 044024.	5.2	62
21	Global Opportunities to Increase Agricultural Independence Through Phosphorus Recycling. <i>Earth's Future</i> , 2019, 7, 370-383.	6.3	62
22	The influence of crop and chemical fertilizer combinations on greenhouse gas emissions: A partial life-cycle assessment of fertilizer production and use in China. <i>Resources, Conservation and Recycling</i> , 2021, 168, 105303.	10.8	62
23	Phosphorus Accumulation in Saint Lawrence River Watershed Soils: A Century-Long Perspective. <i>Ecosystems</i> , 2009, 12, 621-635.	3.4	50
24	Land-Use Legacies Are Important Determinants of Lake Eutrophication in the Anthropocene. <i>PLoS ONE</i> , 2011, 6, e15913.	2.5	46
25	Variability in ecosystem service measurement: a pollination service case study. <i>Frontiers in Ecology and the Environment</i> , 2013, 11, 414-422.	4.0	41
26	Flows in Agro-food Networks (FAN): An agent-based model to simulate local agricultural material flows. <i>Agricultural Systems</i> , 2020, 180, 102718.	6.1	38
27	Quantifying the foodshed: a systematic review of urban food flow and local food self-sufficiency research. <i>Environmental Research Letters</i> , 2021, 16, 023003.	5.2	37
28	Food system resilience to phosphorus shortages on a telecoupled planet. <i>Nature Sustainability</i> , 2022, 5, 114-122.	23.7	31
29	Guiding phosphorus stewardship for multiple ecosystem services. <i>Ecosystem Health and Sustainability</i> , 2016, 2, .	3.1	30
30	Watershed Buffering of Legacy Phosphorus Pressure at a Regional Scale: A Comparison Across Space and Time. <i>Ecosystems</i> , 2019, 22, 91-109.	3.4	27
31	Rural-urban connectivity and agricultural land management across the Global South. <i>Global Environmental Change</i> , 2020, 60, 101982.	7.8	25
32	The Legacy of Agricultural Reclamation on Channel and Pool Networks of Bay of Fundy Salt Marshes. <i>Estuaries and Coasts</i> , 2010, 33, 151-160.	2.2	23
33	Eating on an interconnected planet. <i>Environmental Research Letters</i> , 2013, 8, 021002.	5.2	21
34	Co-benefits and Trade-Offs From Agro-Food System Redesign for Circularity: A Case Study With the FAN Agent-Based Model. <i>Frontiers in Sustainable Food Systems</i> , 2020, 4, .	3.9	19
35	The U.S. consumer phosphorus footprint: where do nitrogen and phosphorus diverge?. <i>Environmental Research Letters</i> , 2020, 15, 105022.	5.2	19
36	Phosphorus and land-use changes are significant drivers of cladoceran community composition and diversity: an analysis over spatial and temporal scales. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2010, 67, 1262-1273.	1.4	17

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37	Socio-environmental consideration of phosphorus flows in the urban sanitation chain of contrasting cities. <i>Regional Environmental Change</i> , 2018, 18, 1387-1401.	2.9	17
38	Extrinsic vs. Intrinsic Regimes Shifts in Shallow Lakes: Long-Term Response of Cyanobacterial Blooms to Historical Catchment Phosphorus Loading and Climate Warming. <i>Frontiers in Ecology and Evolution</i> , 2017, 5, .	2.2	15
39	Geospatial Land Price Data: A Public Good for Global Change Science and Policy. <i>BioScience</i> , 2018, 68, 481-484.	4.9	15
40	Diverse adaptation strategies helped local food producers cope with initial challenges of the Covid-19 pandemic: Lessons from QuÃ©bec, Canada. <i>Journal of Rural Studies</i> , 2022, 90, 124-133.	4.7	15
41	Pathways to sustainable intensification through crop water management. <i>Environmental Research Letters</i> , 2016, 11, 091001.	5.2	14
42	Creating space for sustainability literacy: the case of student-centered symposia. <i>International Journal of Sustainability in Higher Education</i> , 2018, 19, 839-855.	3.1	12
43	Food, trade, and the environment. <i>Environmental Research Letters</i> , 2018, 13, 100201.	5.2	8
44	Growing pains: Small-scale farmer responses to an urban rooftop farming and online marketplace enterprise in MontrÃ©al, Canada. <i>Agriculture and Human Values</i> , 2021, 38, 677-692.	3.0	7
45	Provincial nitrogen footprints highlight variability in drivers of reactive nitrogen emissions in Canada. <i>Environmental Research Letters</i> , 2021, 16, 095007.	5.2	6
46	Reply to Comment on "An index-based framework for assessing patterns and trends in river fragmentation and flow regulation by global dams at multiple scales"™. <i>Environmental Research Letters</i> , 2017, 12, 038002.	5.2	5
47	Examining the Sensitivity of Global CO <sub>2</sub> Emissions to Trade Restrictions over Multiple Years. <i>Environmental Science and Technology Letters</i> , 2022, 9, 293-298.	8.7	2
48	Geographic versus institutional drivers of nitrogen footprints: a comparison of two urban universities. <i>Environmental Research Letters</i> , 2020, 15, 045008.	5.2	1