David Olefeldt

List of Publications by Year
in descending order

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Version: 2024-02-01

56	6,864	147726	155592
papers	citations	31 h-index	55 g-index

78	78	78	7409
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Climate change and the permafrost carbon feedback. Nature, 2015, 520, 171-179.	13.7	2,369
2	Carbon release through abrupt permafrost thaw. Nature Geoscience, 2020, 13, 138-143.	5.4	434
3	A synthesis of methane emissions from 71 northern, temperate, and subtropical wetlands. Global Change Biology, 2014, 20, 2183-2197.	4.2	389
4	Half of global methane emissions come from highly variable aquatic ecosystem sources. Nature Geoscience, 2021, 14, 225-230.	5.4	388
5	Circumpolar distribution and carbon storage of thermokarst landscapes. Nature Communications, 2016, 7, 13043.	5.8	343
6	Large stocks of peatland carbon and nitrogen are vulnerable to permafrost thaw. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 20438-20446.	3.3	307
7	Environmental and physical controls on northern terrestrial methane emissions across permafrost zones. Global Change Biology, 2013, 19, 589-603.	4.2	275
8	Permafrost collapse is accelerating carbon release. Nature, 2019, 569, 32-34.	13.7	237
9	Large loss of CO2 in winter observed across the northern permafrost region. Nature Climate Change, 2019, 9, 852-857.	8.1	225
10	Biomass offsets little or none of permafrost carbon release from soils, streams, and wildfire: an expert assessment. Environmental Research Letters, 2016, 11, 034014.	2.2	199
11	Wildfire as a major driver of recent permafrost thaw in boreal peatlands. Nature Communications, 2018, 9, 3041.	5.8	168
12	A simplified, data-constrained approach to estimate the permafrost carbonâ€“climate feedback. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140423.	1.6	149
13	Effects of permafrost and hydrology on the composition and transport of dissolved organic carbon in a subarctic peatland complex. Journal of Geophysical Research, 2012, 117, .	3.3	125
14	Biomass production efficiency controlled by management in temperate and boreal ecosystems. Nature Geoscience, 2015, 8, 843-846.	5.4	109
15	Net carbon accumulation of a highâ€latitude permafrost palsa mire similar to permafrostâ€free peatlands. Geophysical Research Letters, 2012, 39, .	1.5	76
16	A decade of boreal rich fen greenhouse gas fluxes in response to natural and experimental water table variability. Global Change Biology, 2017, 23, 2428-2440.	4.2	74
17	Total waterborne carbon export and DOC composition from ten nested subarctic peatland catchmentsâ€”importance of peatland cover, groundwater influence, and interâ€annual variability of precipitation patterns. Hydrological Processes, 2013, 27, 2280-2294.	1.1	64
18	Changes in Methane Flux along a Permafrost Thaw Sequence on the Tibetan Plateau. Environmental Science & Technology, 2018, 52, 1244-1252.	4.6	50

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19	Permafrost conditions in peatlands regulate magnitude, timing, and chemical composition of catchment dissolved organic carbon export. Global Change Biology, 2014, 20, 3122-3136.	4.2	47
20	Altered Composition and Microbial versus UV-Mediated Degradation of Dissolved Organic Matter in Boreal Soils Following Wildfire. Ecosystems, 2013, 16, 1396-1412.	1.6	46
21	The Borealâ€“Arctic Wetland and Lake Dataset (BAWLD). Earth System Science Data, 2021, 13, 5127-5149.	3.7	46
22	BAWLD-CH₄: a comprehensive dataset of methane fluxes from boreal and arctic ecosystems. Earth System Science Data, 2021, 13, 5151-5189.	3.7	44
23	Sources and fate of terrestrial dissolved organic carbon in lakes of a Boreal Plains region recently affected by wildfire. Biogeosciences, 2013, 10, 6247-6265.	1.3	41
24	Mercury and methylmercury biogeochemistry in a thawing permafrost wetland complex, Northwest Territories, Canada. Hydrological Processes, 2016, 30, 3627-3638.	1.1	40
25	Seasonal shifts in export of DOC and nutrients from burned and unburned peatland-rich catchments, Northwest Territories, Canada. Hydrology and Earth System Sciences, 2018, 22, 4455-4472.	1.9	40
26	Shallow soils are warmer under trees and tall shrubs across Arctic and Boreal ecosystems. Environmental Research Letters, 2021, 16, 015001.	2.2	39
27	Influence of the permafrost boundary on dissolved organic matter characteristics in rivers within the Boreal and Taiga plains of western Canada. Environmental Research Letters, 2014, 9, 035005.	2.2	38
28	Influence of Holocene permafrost aggradation and thaw on the paleoecology and carbon storage of a peatland complex in northwestern Canada. Holocene, 2017, 27, 1391-1405.	0.9	38
29	Assessing the Potential for Mobilization of Old Soil Carbon After Permafrost Thaw: A Synthesis of ‹sup›14‹/sup›C Measurements From the Northern Permafrost Region. Global Biogeochemical Cycles, 2020, 34, e2020GB006672.	1.9	36
30	Is the subarctic landscape still a carbon sink? Evidence from a detailed catchment balance. Geophysical Research Letters, 2016, 43, 1988-1995.	1.5	35
31	Respiration of aged soil carbon during fall in permafrost peatlands enhanced by active layer deepening following wildfire but limited following thermokarst. Environmental Research Letters, 2018, 13, 085002.	2.2	35
32	A synthesis of three decades of hydrological research at Scotty Creek, NWT, Canada. Hydrology and Earth System Sciences, 2019, 23, 2015-2039.	1.9	30
33	Longâ€term Impacts of Permafrost Thaw on CarbonÂStorage in Peatlands: Deep Losses Offset by Surficial Accumulation. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005501.	1.3	30
34	High Resolution Mapping of Peatland Hydroperiod at a High-Latitude Swedish Mire. Remote Sensing, 2012, 4, 1974-1994.	1.8	27
35	The essential carbon service provided by northern peatlands. Frontiers in Ecology and the Environment, 2022, 20, 222-230.	1.9	27
36	Fluvial CO 2 and CH 4 patterns across wildfireâ€disturbed ecozones of subarctic Canada: Current status and implications for future change. Global Change Biology, 2020, 26, 2304-2319.	4.2	22

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37	Drivers of dissolved organic carbon export in a subarctic catchment: Importance of microbial decomposition, sorption-desorption, peatland and lateral flow. Science of the Total Environment, 2018, 622-623, 260-274.	3.9	20
38	Carbon budget estimation of a subarctic catchment using a dynamic ecosystem model at high spatial resolution. Biogeosciences, 2015, 12, 2791-2808.	1.3	19
39	Characterizing Methane Emission Hotspots From Thawing Permafrost. Global Biogeochemical Cycles, 2021, 35, e2020GB006922.	1.9	19
40	Lability of dissolved organic carbon from boreal peatlands: interactions between permafrost thaw, wildfire, and season. Canadian Journal of Soil Science, 2020, 100, 503-515.	0.5	18
41	Thaw-induced impacts on land and water in discontinuous permafrost: A review of the Taiga Plains and Taiga Shield, northwestern Canada. Earth-Science Reviews, 2022, 232, 104104.	4.0	14
42	Thermokarst amplifies fluvial inorganic carbon cycling and export across watershed scales on the Peel Plateau, Canada. Biogeosciences, 2020, 17, 5163-5182.	1.3	13
43	Opposing Effects of Climate and Permafrost Thaw on CH₄ and CO₂ Emissions From Northern Lakes. AGU Advances, 2021, 2, e2021AV000515.	2.3	13
44	Increased deep soil respiration detected despite reduced overall respiration in permafrost peat plateaus following wildfire. Environmental Research Letters, 2019, 14, 125001.	2.2	12
45	Permafrost Thaw in Northern Peatlands: Rapid Changes in Ecosystem and Landscape Functions. Ecological Studies, 2021, , 27-67.	0.4	11
46	Aged soils contribute little to contemporary carbon cycling downstream of thawing permafrost peatlands. Global Change Biology, 2021, 27, 5368-5382.	4.2	9
47	We Must Stop Fossil Fuel Emissions to Protect Permafrost Ecosystems. Frontiers in Environmental Science, 0, 10, .	1.5	9
48	Dissolved organic carbon in streams within a subarctic catchment analysed using a GIS/remote sensing approach. PLoS ONE, 2018, 13, e0199608.	1.1	8
49	Hydrological resilience to forest fire in the subarctic Canadian shield. Hydrological Processes, 2020, 34, 4940-4958.	1.1	8
50	Characteristics of Dissolved Organic Carbon in Boreal Lakes: High Spatial and Interâ€Annual Variability Controlled by Landscape Attributes and Wetâ€Dry Periods. Water Resources Research, 2021, 57, .	1.7	8
51	The missing pieces for better future predictions in subarctic ecosystems: A TornetrÃsk case study. Ambio, 2021, 50, 375-392.	2.8	6
52	Constraints on potential enzyme activities in thermokarst bogs: Implications for the carbon balance of peatlands following thaw. Global Change Biology, 2021, 27, 4711-4726.	4.2	5
53	Fire in the Arctic: The effect of wildfire across diverse aquatic ecosystems of the Northwest Territories. , 2019, 1, 31-38.		5
54	High peatland methane emissions following permafrost thaw: enhanced acetoclastic methanogenesis during early successional stages. Biogeosciences, 2022, 19, 3051-3071.	1.3	3

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55	Effects of Prescribed Burn on Nutrient and Dissolved Organic Matter Characteristics in Peatland Shallow Groundwater. Fire, 2020, 3, 53.	1.2	2
56	Morphometric Control on Dissolved Organic Carbon in Subarctic Streams. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005348.	1.3	2