Richard M Petrone

List of Publications by Year
in descending order

89	1,824	236612 25	329751 37
papers	citations	h-index	g-index

89	89	89	1370
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Microclimatic Effects of a Perched Peatland Forest Gap. Boundary-Layer Meteorology, 2022, 182, 95-118.	1.2	2
2	Assessment of effective LAI and water use efficiency using Eddy Covariance data. Science of the Total Environment, 2022, 802, 149628.	3.9	4
3	Analysis of growing season carbon and water fluxes of a subalpine wetland in the Canadian Rocky Mountains: Implications of shade on ecosystem water use efficiency. Hydrological Processes, 2022, 36, e14425.	1.1	3
4	Assessing the importance of bi-directional melting when modeling boreal peatland freeze/thaw dynamics. Journal of Hydrology, 2022, 604, 127236.	2.3	3
5	A temporal snapshot of ecosystem functionality during the initial stages of reclamation of an upland-fen complex. Journal of Hydrology: Regional Studies, 2022, 41, 101078.	1.0	2
6	Carbon and Nutrient Stoichiometric Relationships in the Soilâ€“Plant Systems of Disturbed Boreal Forest Peatlands within Athabasca Oil Sands Region, Canada. Forests, 2022, 13, 865.	0.9	1
7	Using Stable Water Isotopes to Analyze Spatiotemporal Variability and Hydrometeorological Forcing in Mountain Valley Wetlands. Water (Switzerland), 2022, 14, 1815.	1.2	1
8	Growing season evapotranspiration in boreal fens in the Athabasca Oil Sands Region: Variability and environmental controls. Hydrological Processes, 2021, 35, e14020.	1.1	9
9	Deeper burning in a boreal fen peatland 1â€year postâ€wildfire accelerates recovery trajectory of carbon dioxide uptake. Ecohydrology, 2021, 14, e2277.	1.1	6
10	The influence of system heterogeneity on peat-surface temperature dynamics. Environmental Research Letters, 2021, 16, 024002.	2.2	3
11	Regulation of peatland evaporation following wildfire; the complex control of soil tension under dynamic evaporation demand. Hydrological Processes, 2021, 35, e14132.	1.1	5
12	Subalpine forest water use behaviour and evapotranspiration during two hydrologically contrasting growing seasons in the Canadian Rockies. Hydrological Processes, 2021, 35, e14158.	1.1	9
13	Assessment of Different Water Use Efficiency Calculations for Dominant Forage Crops in the Great Lakes Basin. Agriculture (Switzerland), 2021, 11, 739.	1.4	3
14	Understanding the peak growing season ecosystem waterâ€use efficiency at four boreal fens in the Athabasca oil sands region. Hydrological Processes, 2021, 35, e14323.	1.1	6
15	Soil respiration and litter decomposition along a salinity gradient in a saline boreal fen in the Athabasca Oil Sands Region. Geoderma, 2021, 395, 115070.	2.3	3
16	High sulfate concentrations maintain low methane emissions at a constructed fen over the first seven years of ecosystem development. Science of the Total Environment, 2021, 789, 148014.	3.9	9
17	Seasonal ground ice impacts on spring ecohydrological conditions in a western boreal plains peatland. Hydrological Processes, 2020, 34, 765-779.	1.1	10
18	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.	0.7	2

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19	Ecosystem scale evapotranspiration and CO₂ exchange in burned and unburned peatlands: Implications for the ecohydrological resilience of carbon stocks to wildfire. Ecohydrology, 2020, 13, e2189.	1.1	14
20	A <scp>Î´¹⁸O</scp> and <scp>Î´²H</scp> stable water isotope analysis of subalpine forest water sources under seasonal and hydrological stress in the Canadian Rocky Mountains. Hydrological Processes, 2020, 34, 5642-5658.	1.1	10
21	Increasing contribution of peatlands to boreal evapotranspiration in a warming climate. Nature Climate Change, 2020, 10, 555-560.	8.1	106
22	Growing season CO₂ exchange and evapotranspiration dynamics among thawing and intact permafrost landforms in the Western Hudson Bay lowlands. Permafrost and Periglacial Processes, 2020, 31, 509-523.	1.5	2
23	Quantifying the spatial variability of melting seasonal ground ice and its influence on potential evapotranspiration spatial variability in a boreal peatland. Hydrological Processes, 2020, 34, 3683-3701.	1.1	2
24	Hydrological effects of resource-access road crossings on boreal forested peatlands. Journal of Hydrology, 2020, 584, 124748.	2.3	18
25	Wetlands in the Athabasca Oil Sands Region: the nexus between wetland hydrological function and resource extraction. Environmental Reviews, 2020, 28, 246-261.	2.1	31
26	Hydrogeologic setting overrides any influence of wildfire on pore water dissolved organic carbon concentration and quality at a boreal fen. Ecohydrology, 2019, 12, e2141.	1.1	8
27	Wildfire overrides hydrological controls on boreal peatland methane emissions. Biogeosciences, 2019, 16, 2651-2660.	1.3	10
28	Increased Peatland Nutrient Availability Following the Fort McMurray Horse River Wildfire. Diversity, 2019, 11, 142.	0.7	11
29	Hydraulic redistribution and hydrological controls on aspen transpiration and establishment in peatlands following wildfire. Hydrological Processes, 2019, 33, 2714-2728.	1.1	7
30	Effects of shoreline permafrost thaw on nutrient dynamics and diatom ecology in a subarctic tundra pond. Journal of Paleolimnology, 2019, 62, 151-163.	0.8	5
31	Postfire Soil Carbon Accumulation Does Not Recover Boreal Peatland Combustion Loss in Some Hydrogeological Settings. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 775-788.	1.3	23
32	Severe wildfire exposes remnant peat carbon stocks to increased post-fire drying. Scientific Reports, 2019, 9, 3727.	1.6	17
33	Potential influence of nutrient availability along a hillslope: Peatland gradient on aspen recovery following fire. Ecohydrology, 2018, 11, e1955.	1.1	4
34	A hydrogeological landscape framework to identify peatland wildfire smouldering hot spots. Ecohydrology, 2018, 11, e1942.	1.1	21
35	Disturbance Impacts on Thermal Hot Spots and Hot Moments at the Peatlandâ€Atmosphere Interface. Geophysical Research Letters, 2018, 45, 185-193.	1.5	8
36	Ecohydrological functioning of an upland undergoing reclamation on postâ€mining landscape of the Athabasca oil sands region, Canada. Ecohydrology, 2018, 11, e1941.	1.1	6

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37	Impact of Salinity, Hydrology and Vegetation on Long-Term Carbon Accumulation in a Saline Boreal Peatland and its Implication for Peatland Reclamation in the Athabasca Oil Sands Region. Wetlands, 2018, 38, 373-382.	0.7	13
38	Climate-induced changes in nutrient transformations across landscape units in a thermokarst subarctic peatland. Arctic, Antarctic, and Alpine Research, 2018, 50, .	0.4	7
39	Delineating boreal plains bog margin ecotones across hydrogeological settings for wildfire risk management. Wetlands Ecology and Management, 2018, 26, 1037-1046.	0.7	15
40	Effect of climate change and mining on hydrological connectivity of surficial layers in the Athabasca Oil Sands Region. Hydrological Processes, 2018, 32, 3698-3716.	1.1	12
41	Remote sensing of ecosystem trajectories as a proxy indicator for watershed water balance. Ecohydrology, 2018, 11, e1987.	1.1	12
42	Seasonal dynamics in shallow freshwater pondâ€peatland hydrochemical interactions in a subarctic permafrost environment. Hydrological Processes, 2017, 31, 462-475.	1.1	10
43	Controls on plot-scale evapotranspiration from a constructed fen in the Athabasca Oil Sands Region, Alberta. Ecological Engineering, 2017, 100, 199-210.	1.6	21
44	Using High Resolution LiDAR Data and a Flux Footprint Parameterization to Scale Evapotranspiration Estimates to Lower Pixel Resolutions. Canadian Journal of Remote Sensing, 2017, 43, 215-229.	1.1	12
45	Post-fire ecohydrological conditions at peatland margins in different hydrogeological settings of the Boreal Plain. Journal of Hydrology, 2017, 548, 741-753.	2.3	28
46	Peatland water repellency: Importance of soil water content, moss species, and burn severity. Journal of Hydrology, 2017, 554, 656-665.	2.3	23
47	Low Evapotranspiration Enhances the Resilience of Peatland Carbon Stocks to Fire. Geophysical Research Letters, 2017, 44, 9341-9349.	1.5	21
48	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.	0.8	14
49	Effect of a semiâ€permanent road on N, P, and CO₂ dynamics in a poor fen on the Western Boreal Plain, Canada. Ecohydrology, 2017, 10, e1874.	1.1	16
50	Peat depth as a control on moss water availability under evaporative stress. Hydrological Processes, 2017, 31, 4107-4121.	1.1	14
51	Using Multitemporal and Multispectral Airborne Lidar to Assess Depth of Peat Loss and Correspondence With a New Active Normalized Burn Ratio for Wildfires. Geophysical Research Letters, 2017, 44, 11,851.	1.5	25
52	The hydrological functioning of a constructed fen wetland watershed. Science of the Total Environment, 2017, 603-604, 593-605.	3.9	41
53	Utikuma Region Study Area (URSA) â€" Part 2: Aspen Harvest and Recovery Study. Forestry Chronicle, 2016, 92, 62-65.	0.5	6
54	Utikuma Region Study Area (URSA) â€" Part 1: Hydrogeological and ecohydrological studies (HEAD). Forestry Chronicle, 2016, 92, 57-61.	0.5	21

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55	Moss and peat hydraulic properties are optimized to maximize peatland water use efficiency. Ecohydrology, 2016, 9, 1039-1051.	1.1	24
56	Groundwater connectivity controls peat burn severity in the boreal plains. Ecohydrology, 2016, 9, 574-584.	1.1	53
57	Constructing fen peatlands in post-mining oil sands landscapes: Challenges and opportunities from a hydrological perspective. Earth-Science Reviews, 2016, 161, 130-139.	4.0	63
58	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.	1.6	16
59	Characterizing dominant controls governing evapotranspiration within a natural saline fen in the Athabasca Oil Sands of Alberta, Canada. Ecohydrology, 2016, 9, 817-829.	1.1	18
60	Hydroclimatic influences on peatland CO₂ exchange following upland forest harvesting on the Boreal Plains. Ecohydrology, 2016, 9, 1590-1603.	1.1	9
61	A Physically Based Terrain Morphology and Vegetation Structural Classification for Wetlands of the Boreal Plains, Alberta, Canada. Canadian Journal of Remote Sensing, 2016, 42, 521-540.	1.1	33
62	Burn severity alters peatland moss water availability: implications for postâ€fire recovery. Ecohydrology, 2016, 9, 341-353.	1.1	29
63	Spatial variation in nutrient dynamics among five different peatland types in the Alberta oil sands region. Ecohydrology, 2016, 9, 688-699.	1.1	31
64	Above and below-ground nutrient cycling: a criteria for assessing the biogeochemical functioning of a constructed fen. Applied Soil Ecology, 2016, 98, 177-194.	2.1	17
65	Influence of glacial landform hydrology on phosphorus budgets of shallow lakes on the Boreal Plain, Canada. Journal of Hydrology, 2016, 535, 191-203.	2.3	11
66	Al-Pac Catchment Experiment (ACE). Forestry Chronicle, 2016, 92, 23-26.	0.5	2
67	Climatic controls on groundwaterâ€“surface water interactions within the Boreal Plains of Alberta: Field observations and numerical simulations. Journal of Hydrology, 2015, 527, 734-746.	2.3	39
68	Hydrogeological controls on post-fire moss recovery in peatlands. Journal of Hydrology, 2015, 530, 405-418.	2.3	38
69	Towards Developing a Functional-Based Approach for Constructed Peatlands Evaluation in the Alberta Oil Sands Region, Canada. Wetlands, 2015, 35, 211-225.	0.7	43
70	Effects of harvesting and drought on CO₂and H₂O fluxes in an aspen-dominated western boreal plain forest: early chronosequence recovery. Canadian Journal of Forest Research, 2015, 45, 87-100.	0.8	30
71	Impacts of donor-peat management practices on the functional characteristics of a constructed fen. Ecological Engineering, 2015, 81, 471-480.	1.6	32
72	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.	0.4	22

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73	Evaluating the use of spatially varying versus bulk average 3D vegetation structural inputs to modelled evapotranspiration within heterogeneous land cover types. Ecohydrology, 2014, 7, 1545-1559.	1.1	15
74	Burned and unburned peat water repellency: Implications for peatland evaporation following wildfire. Journal of Hydrology, 2014, 513, 335-341.	2.3	46
75	Atmospheric and soil moisture controls on evapotranspiration from above and within a Western Boreal Plain aspen forest. Hydrological Processes, 2014, 28, 4449-4462.	1.1	59
76	Effects of aspen harvesting on groundwater recharge and water table dynamics in a subhumid climate. Water Resources Research, 2011, 47, .	1.7	31
77	Microtopographical and canopy cover controls on moss carbon dioxide exchange in a western Boreal Plain peatland. Ecohydrology, 2011, 4, 115-129.	1.1	17
78	Surface vegetation controls on evapotranspiration from a subâ€humid Western Boreal Plain wetland. Hydrological Processes, 2010, 24, 1072-1085.	1.1	80
79	Precipitation variability and its relationship to hydrologic variability in Alberta. Hydrological Processes, 2009, 23, 3040-3056.	1.1	50
80	Forest floor carbon dioxide fluxes within an uplandâ€peatland complex in the Western Boreal Plain, Canada. Ecohydrology, 2008, 1, 361-376.	1.1	15
81	Dynamics of evapotranspiration from a riparian pond complex in the Western Boreal Forest, Alberta, Canada. Hydrological Processes, 2007, 21, 1391-1401.	1.1	79
82	Surface moisture and energy exchange from a restored peatland, QuÃ©bec, Canada. Journal of Hydrology, 2004, 295, 198-210.	2.3	52
83	Ecosystem-scale flux of CO2from a restored vacuum harvested peatland. Wetlands Ecology and Management, 2003, 11, 419-432.	0.7	32
84	Mulch decomposition impedes recovery of net carbon sink function in a restored peatland. Ecological Engineering, 2003, 20, 199-210.	1.6	29
85	Ecosystem scale evapotranspiration and net CO2 exchange from a restored peatland. Hydrological Processes, 2001, 15, 2839-2845.	1.1	62
86	Comparative surface energy budgets in western and central subarctic regions of Canada. International Journal of Climatology, 2000, 20, 1131-1148.	1.5	23
87	Synoptic controls on the surface energy and water budgets in sub-arctic regions of Canada. International Journal of Climatology, 2000, 20, 1149-1165.	1.5	23
88	SYNOPTIC AND SURFACE CLIMATOLOGY INTERACTIONS IN THE CENTRAL CANADIAN SUBARCTIC: NORMAL AND EL NIÃ'O SEASONS. Physical Geography, 2000, 21, 368-383.	0.6	5
89	Vegetationâ€related influences on carbon and water dynamics of two temperate forage crops. Agronomy Journal, 0, , .	0.9	1