

James M Buttle

List of Publications by Year in descending order

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Version: 2024-02-01

67
papers

2,636
citations

185998

28
h-index

189595

50
g-index

71
all docs

71
docs citations

71
times ranked

3065
citing authors

#	ARTICLE	IF	CITATIONS
1	Isotope hydrograph separations and rapid delivery of pre-event water from drainage basins. <i>Progress in Physical Geography</i> , 1994, 18, 16-41.	1.4	424
2	Tracer-based assessment of flow paths, storage and runoff generation in northern catchments: a review. <i>Hydrological Processes</i> , 2015, 29, 3475-3490.	1.1	145
3	Hydrologic coupling of slopes, riparian zones and streams: an example from the Canadian Shield. <i>Journal of Hydrology</i> , 2004, 287, 161-177.	2.3	137
4	Cross-regional prediction of long-term trajectory of stream water DOC response to climate change. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	127
5	Inter-comparison of hydro-climatic regimes across northern catchments: synchronicity, resistance and resilience. <i>Hydrological Processes</i> , 2010, 24, 3591-3602.	1.1	103
6	Flood processes in Canada: Regional and special aspects. <i>Canadian Water Resources Journal</i> , 2016, 41, 7-30.	0.5	97
7	Long-term trends in dissolved organic carbon concentration: a cautionary note. <i>Biogeochemistry</i> , 2008, 87, 71-81.	1.7	85
8	Measuring and Modeling Stable Isotopes of Mobile and Bulk Soil Water. <i>Vadose Zone Journal</i> , 2018, 17, 1-18.	1.3	84
9	Mapping first-order controls on streamflow from drainage basins: the T3 template. <i>Hydrological Processes</i> , 2006, 20, 3415-3422.	1.1	82
10	Impacts of clearcut harvesting on snow accumulation and melt in a northern hardwood forest. <i>Journal of Hydrology</i> , 2003, 271, 197-212.	2.3	79
11	An Overview of Temporary Stream Hydrology in Canada. <i>Canadian Water Resources Journal</i> , 2012, 37, 279-310.	0.5	75
12	Save northern high-latitude catchments. <i>Nature Geoscience</i> , 2017, 10, 324-325.	5.4	71
13	Spatial variability of saturated hydraulic conductivity in shallow macroporous soils in a forested basin. <i>Journal of Hydrology</i> , 1997, 203, 127-142.	2.3	68
14	Examination of the potential relationship between droughts, sulphate and dissolved organic carbon at a wetland-draining stream. <i>Global Change Biology</i> , 2008, 14, 938-948.	4.2	59
15	Use of color maps and wavelet coherence to discern seasonal and interannual climate influences on streamflow variability in northern catchments. <i>Water Resources Research</i> , 2013, 49, 6194-6207.	1.7	59
16	A preliminary assessment of water partitioning and ecohydrological coupling in northern headwaters using stable isotopes and conceptual runoff models. <i>Hydrological Processes</i> , 2015, 29, 5153-5173.	1.1	57
17	Comparison of threshold hydrologic response across northern catchments. <i>Hydrological Processes</i> , 2015, 29, 3575-3591.	1.1	55
18	Storage, mixing, and fluxes of water in the critical zone across northern environments inferred by stable isotopes of soil water. <i>Hydrological Processes</i> , 2018, 32, 1720-1737.	1.1	52

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19	Stable isotopes of water reveal differences in plant – soil water relationships across northern environments. <i>Hydrological Processes</i> , 2021, 35, e14023.	1.1	51
20	The Processes, Patterns and Impacts of Low Flows Across Canada. <i>Canadian Water Resources Journal</i> , 2008, 33, 107-124.	0.5	50
21	Hydrologic dynamics and linkages in a wetland-dominated basin. <i>Journal of Hydrology</i> , 2006, 319, 15-35.	2.3	45
22	Semi-distributed water balance dynamics in a small boreal forest basin. <i>Journal of Hydrology</i> , 1999, 226, 66-87.	2.3	41
23	Infiltration and soil water mixing on forested and harvested slopes during spring snowmelt, Turkey Lakes Watershed, central Ontario. <i>Journal of Hydrology</i> , 2005, 306, 1-20.	2.3	40
24	Persistence of Water within Perched Basins of the Peace-Athabasca Delta, Northern Canada. <i>Wetlands Ecology and Management</i> , 2006, 14, 221-243.	0.7	39
25	Scaling and physiographic controls on streamflow behaviour on the Precambrian Shield, south-central Ontario. <i>Journal of Hydrology</i> , 2009, 374, 360-372.	2.3	37
26	Water ages in the critical zone of long-term experimental sites in northern latitudes. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 3965-3981.	1.9	37
27	Change in winter climate will affect dissolved organic carbon and water fluxes in mid-to-high latitude catchments. <i>Hydrological Processes</i> , 2013, 27, 700-709.	1.1	35
28	Climate-phenology-hydrology interactions in northern high latitudes: Assessing the value of remote sensing data in catchment ecohydrological studies. <i>Science of the Total Environment</i> , 2019, 656, 19-28.	3.9	32
29	Measurement and modeling of canopy water partitioning in a reforested landscape: The Ganaraska Forest, southern Ontario, Canada. <i>Journal of Hydrology</i> , 2012, 466-467, 103-114.	2.3	28
30	Dynamic storage: a potential metric of inter-basin differences in storage properties. <i>Hydrological Processes</i> , 2016, 30, 4644-4653.	1.1	25
31	Hydrologic response to and recovery from differing silvicultural systems in a deciduous forest landscape with seasonal snow cover. <i>Journal of Hydrology</i> , 2018, 557, 805-825.	2.3	25
32	The Effects of Forest Harvesting on Forest Hydrology and Biogeochemistry. <i>Ecological Studies</i> , 2011, , 659-677.	0.4	22
33	Mediating stream baseflow response to climate change: The role of basin storage. <i>Hydrological Processes</i> , 2018, 32, 363-378.	1.1	21
34	Urban biogeochemistry of trace elements: What can the sediments of stormwater ponds tell us?. <i>Urban Ecosystems</i> , 2015, 18, 763-775.	1.1	20
35	Prediction of Streamflow Regime and Annual Runoff for Ungauged Basins Using a Distributed Monthly Water Balance Model ¹ . <i>Journal of the American Water Resources Association</i> , 2012, 48, 32-42.	1.0	18
36	Stemflow and soil water recharge during rainfall in a red pine chronosequence on the Oak Ridges Moraine, southern Ontario, Canada. <i>Journal of Hydrology</i> , 2014, 517, 777-790.	2.3	18

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37	Quickflow response to forest harvesting and recovery in a northern hardwood forest landscape. <i>Hydrological Processes</i> , 2019, 33, 47-65.	1.1	16
38	Travel times for snowmelt-dominated headwater catchments: Influences of wetlands and forest harvesting, and linkages to stream water quality. <i>Hydrological Processes</i> , 2020, 34, 2154-2175.	1.1	15
39	Evaluation of a Simple Method to Classify the Thermal Characteristics of Streams Using a Nomogram of Daily Maximum Air and Water Temperatures. <i>North American Journal of Fisheries Management</i> , 2009, 29, 1605-1619.	0.5	14
40	Hydrological footprints of urban developments in the Lake Simcoe watershed, Canada: a combined paired-catchment and change detection modelling approach. <i>Hydrological Processes</i> , 2015, 29, 1829-1843.	1.1	14
41	HYDROLOGICAL RESPONSE TO REFORESTATION IN THE GANARASKA RIVER BASIN, SOUTHERN ONTARIO. <i>Canadian Geographer / Geographie Canadien</i> , 1994, 38, 240-253.	1.0	13
42	Spatiotemporal patterns of baseflow metrics for basins draining the Oak Ridges Moraine, southern Ontario, Canada. <i>Canadian Water Resources Journal</i> , 2015, 40, 3-22.	0.5	12
43	Testing a spatially distributed tracer-aided runoff model in a snow-influenced catchment: Effects of multicriteria calibration on streamwater ages. <i>Hydrological Processes</i> , 2018, 32, 3089-3107.	1.1	12
44	Co-evolution of xylem water and soil water stable isotopic composition in a northern mixed forest biome. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 2169-2186.	1.9	11
45	Land cover controls on depression-focused recharge on the Oak Ridges Moraine, southern Ontario, Canada. <i>Hydrological Processes</i> , 2018, 32, 1909-1926.	1.1	10
46	Hydroclimatic and hydrochemical controls on Plecoptera diversity and distribution in northern freshwater ecosystems. <i>Hydrobiologia</i> , 2012, 693, 39-53.	1.0	8
47	Importance of rainfall partitioning in a northern mixed forest canopy for soil water isotopic signatures in ecohydrological studies. <i>Hydrological Processes</i> , 2020, 34, 284-302.	1.1	7
48	Contrasting storage-flux-age interactions revealed by catchment inter-comparison using a tracer-aided runoff model. <i>Journal of Hydrology</i> , 2020, 590, 125226.	2.3	7
49	Development of an inexpensive automated streamflow monitoring system. <i>Hydrological Processes</i> , 2020, 34, 3021-3023.	1.1	7
50	Long-term stream chemistry response to harvesting in a northern hardwood forest watershed experiencing environmental change. <i>Forest Ecology and Management</i> , 2022, 519, 120345.	1.4	6
51	Comparison of measured and estimated unsaturated hydraulic conductivities during snowmelt. <i>Journal of Hydrology</i> , 1991, 123, 243-259.	2.3	5
52	Anatomy of an Extreme Event: The July 14-15, 2004 Peterborough Rainstorm. <i>Canadian Water Resources Journal</i> , 2007, 32, 59-74.	0.5	5
53	Analysis of hydrological seasonality across northern catchments using monthly precipitation-runoff polygon metrics. <i>Hydrological Sciences Journal</i> , 2014, 59, 56-72.	1.2	4
54	Assessing basin storage: Comparison of hydrometric- and tracer-based indices of dynamic and total storage. <i>Hydrological Processes</i> , 2020, 34, 2012-2031.	1.1	4

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55	Channel Changes Following Headwater Reforestation: The Ganaraska River, Ontario, Canada. Geografiska Annaler, Series A: Physical Geography, 1995, 77, 107-118.	0.6	3
56	Investigating snowpack across scale in the northern Great Lakesâ€“St. Lawrence forest region of Central Ontario, Canada. Hydrological Processes, 2019, 33, 3310-3329.	1.1	3
57	Recent advances in Canadian hydrology Special issue. Hydrological Processes, 2000, 14, 1537-1537.	1.1	2
58	Precipitation data quality and longâ€“term water balances within the Moose River Basin, eastâ€“central Canada. Atmosphere - Ocean, 2001, 39, 55-69.	0.6	2
59	Clarifying misconceptions regarding the relationship between Hewlett and Hibbert's transitory flow process and ecohydrological separation. Hydrological Processes, 2020, 34, 5686-5689.	1.1	2
60	K.J. Gregory and the Devon instrumented catchments. Earth Surface Processes and Landforms, 2021, 46, 2523-2526.	1.2	2
61	Channel Changes following Headwater Reforestation: The Ganaraska River, Ontario, Canada. Geografiska Annaler, Series A: Physical Geography, 1995, 77, 107.	0.6	2
62	Canadian Geophysical Union - Hydrology Section. Hydrological Processes, 2006, 20, 3587-3588.	1.1	1
63	<i>HPToday</i>: retrospective and prospective. Hydrological Processes, 2015, 29, 3441-3442.	1.1	1
64	Evaluating seasonal and regional calibration of temperature-based methods for estimating potential evaporation in Ontario. Canadian Water Resources Journal, 2019, 44, 2-21.	0.5	1
65	<i>HPEye</i>. Hydrological Processes, 2016, 30, 2509-2509.	1.1	0
66	Controls on depression-focused recharge during spring snowmelt on the Oak Ridges Moraine, southern Ontario, Canada. Catena, 2020, 184, 104241.	2.2	0
67	Preface for Jake Peters' special issue. Hydrological Processes, 2020, 34, 1680-1681.	1.1	0