Doerthe Tetzlaff

List of Publications by Year
in descending order

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Version: 2024-02-01

233 papers	12,564 citations	19636 61 h-index	36008 97 g-index
278 all docs	278 docs citations	278 times ranked	7634 citing authors

#	Article	IF	Citations
1	A decade of Predictions in Ungauged Basins (PUB)â€"a review. Hydrological Sciences Journal, 2013, 58, 1198-1255.	1.2	821
2	Concepts of hydrological connectivity: Research approaches, pathways and future agendas. Earth-Science Reviews, 2013, 119, 17-34.	4.0	445
3	How old is streamwater? Open questions in catchment transit time conceptualization, modelling and analysis. Hydrological Processes, 2010, 24, 1745-1754.	1.1	276
4	Homogenization of the terrestrial water cycle. Nature Geoscience, 2020, 13, 656-658.	5.4	242
5	Runoff processes, stream water residence times and controlling landscape characteristics in a mesoscale catchment: An initial evaluation. Journal of Hydrology, 2006, 325, 197-221.	2.3	225
6	What can flux tracking teach us about water age distribution patterns and their temporal dynamics?. Hydrology and Earth System Sciences, 2013, 17, 533-564.	1.9	217
7	Storage dynamics in hydropedological units control hillslope connectivity, runoff generation, and the evolution of catchment transit time distributions. Water Resources Research, 2014, 50, 969-985.	1.7	216
8	How does landscape structure influence catchment transit time across different geomorphic provinces?. Hydrological Processes, 2009, 23, 945-953.	1.1	207
9	Conceptualization of runoff processes using a geographical information system and tracers in a nested mesoscale catchment. Hydrological Processes, 2007, 21, 1289-1307.	1.1	173
10	Connectivity between landscapes and riverscapesâ€"a unifying theme in integrating hydrology and ecology in catchment science?. Hydrological Processes, 2007, 21, 1385-1389.	1.1	163
11	Influence of hydrology and seasonality on DOC exports from three contrasting upland catchments. Biogeochemistry, 2008, 90, 93-113.	1.7	150
12	Gamma distribution models for transit time estimation in catchments: Physical interpretation of parameters and implications for timeâ€variant transit time assessment. Water Resources Research, 2010, 46, .	1.7	146
13	Tracerâ€based assessment of flow paths, storage and runoff generation in northern catchments: a review. Hydrological Processes, 2015, 29, 3475-3490.	1.1	145
14	Storage as a Metric of Catchment Comparison. Hydrological Processes, 2011, 25, 3364-3371.	1.1	142
15	Using stable isotope tracers to assess hydrological flow paths, residence times and landscape influences in a nested mesoscale catchment. Hydrology and Earth System Sciences, 2005, 9, 139-155.	1.9	136
16	Regionalization of transit time estimates in montane catchments by integrating landscape controls. Water Resources Research, 2009, 45, .	1.7	136
17	Generality of fractal 1/f scaling in catchment tracer time series, and its implications for catchment travel time distributions. Hydrological Processes, 2010, 24, 1660-1671.	1.1	134
18	Stream water age distributions controlled by storage dynamics and nonlinear hydrologic connectivity: Modeling with high-resolution isotope data. Water Resources Research, 2015, 51, 7759-7776.	1.7	134

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19	Using long-term data sets to understand transit times in contrasting headwater catchments. Journal of Hydrology, 2009, 367, 237-248.	2.3	128
20	Crossâ€regional prediction of longâ€term trajectory of stream water DOC response to climate change. Geophysical Research Letters, 2012, 39, .	1.5	127
21	Modelling catchmentâ€scale water storage dynamics: reconciling dynamic storage with tracerâ€inferred passive storage. Hydrological Processes, 2011, 25, 3924-3936.	1.1	125
22	Comparing chloride and water isotopes as hydrological tracers in two Scottish catchments. Hydrological Processes, 2010, 24, 1631-1645.	1.1	121
23	Soil water stable isotopes reveal evaporation dynamics at the soilâ€“plantâ€“atmosphere interface of the critical zone. Hydrology and Earth System Sciences, 2017, 21, 3839-3858.	1.9	119
24	Inferring groundwater influences on surface water in montane catchments from hydrochemical surveys of springs and streamwaters. Journal of Hydrology, 2007, 333, 199-213.	2.3	118
25	Using stable isotopes to assess surface water source dynamics and hydrological connectivity in a high-latitude wetland and permafrost influenced landscape. Journal of Hydrology, 2018, 556, 279-293.	2.3	116
26	Interâ€catchment comparison to assess the influence of topography and soils on catchment transit times in a geomorphic province; the Cairngorm mountains, Scotland. Hydrological Processes, 2009, 23, 1874-1886.	1.1	115
27	Interâ€comparison of hydroâ€climatic regimes across northern catchments: synchronicity, resistance and resilience. Hydrological Processes, 2010, 24, 3591-3602.	1.1	103
28	Using SAS functions and highâ€resolution isotope data to unravel travel time distributions in headwater catchments. Water Resources Research, 2017, 53, 1864-1878.	1.7	102
29	The essential value of longâ€term experimental data for hydrology and water management. Water Resources Research, 2017, 53, 2598-2604.	1.7	102
30	Sources of baseflow in larger catchments â€“ Using tracers to develop a holistic understanding of runoff generation. Journal of Hydrology, 2008, 359, 287-302.	2.3	101
31	Ecohydrological separation in wet, low energy northern environments? A preliminary assessment using different soil water extraction techniques. Hydrological Processes, 2015, 29, 5139-5152.	1.1	100
32	Thermal regimes in a large upland salmon river: a simple model to identify the influence of landscape controls and climate change on maximum temperatures. Hydrological Processes, 2010, 24, 3374-3391.	1.1	96
33	Highâ€frequency storm event isotope sampling reveals timeâ€variant transit time distributions and influence of diurnal cycles. Hydrological Processes, 2012, 26, 308-316.	1.1	96
34	Conceptual modelling to assess how the interplay of hydrological connectivity, catchment storage and tracer dynamics controls nonstationary water age estimates. Hydrological Processes, 2015, 29, 2956-2969.	1.1	95
35	Evaporation fractionation in a peatland drainage network affects stream water isotope composition. Water Resources Research, 2017, 53, 851-866.	1.7	92
36	Towards simple approaches for mean residence time estimation in ungauged basins using tracers and soil distributions. Journal of Hydrology, 2008, 363, 60-74.	2.3	91

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37	Tracers and transit times: windows for viewing catchment scale storage?. Hydrological Processes, 2009, 23, 3503-3507.	1.1	90
38	Influence of forestry, environmental change and climatic variability on the hydrology, hydrochemistry and residence times of upland catchments. Journal of Hydrology, 2007, 346, 93-111.	2.3	89
39	EcH₂O-isoÂ1.0: water isotopes and age tracking in a process-based, distributed ecohydrological model. Geoscientific Model Development, 2018, 11, 3045-3069.	1.3	88
40	The relative role of soil type and tree cover on water storage and transmission in northern headwater catchments. Hydrological Processes, 2015, 29, 1844-1860.	1.1	87
41	Conceptualizing catchment processes: simply too complex?. Hydrological Processes, 2008, 22, 1727-1730.	1.1	86
42	Using time domain and geographic source tracers to conceptualize streamflow generation processes in lumped rainfallâ€runoff models. Water Resources Research, 2011, 47, .	1.7	86
43	Do timeâ€variable tracers aid the evaluation of hydrological model structure? A multimodel approach. Water Resources Research, 2012, 48, .	1.7	86
44	The influence of riparian woodland on stream temperatures: implications for the performance of juvenile salmonids. Hydrological Processes, 2008, 22, 968-979.	1.1	85
45	Catchment transit times and landscape controlsâ€”does scale matter?. Hydrological Processes, 2010, 24, 117-125.	1.1	85
46	A comparison of similarity indices for catchment classification using a cross-regional dataset. Advances in Water Resources, 2012, 40, 11-22.	1.7	85
47	Measuring and Modeling Stable Isotopes of Mobile and Bulk Soil Water. Vadose Zone Journal, 2018, 17, 1-18.	1.3	84
48	Scaling up and out in runoff process understanding: insights from nested experimental catchment studies. Hydrological Processes, 2006, 20, 2461-2465.	1.1	81
49	Modelling landscape controls on dissolved organic carbon sources and fluxes to streams. Biogeochemistry, 2015, 122, 361-374.	1.7	77
50	Significance of spatial variability in precipitation for process-oriented modelling: results from two nested catchments using radar and ground station data. Hydrology and Earth System Sciences, 2005, 9, 29-41.	1.9	74
51	Catchment data for process conceptualization: simply not enough?. Hydrological Processes, 2008, 22, 2057-2061.	1.1	74
52	Connecting precipitation inputs and soil flow pathways to stream water in contrasting boreal catchments. Hydrological Processes, 2015, 29, 3546-3555.	1.1	74
53	Developing a consistent processâ€based conceptualization of catchment functioning using measurements of internal state variables. Water Resources Research, 2014, 50, 3481-3501.	1.7	73
54	Spatial and temporal patterns of soil water storage and vegetation water use in humid northern catchments. Science of the Total Environment, 2017, 595, 486-493.	3.9	72

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55	Save northern high-latitude catchments. Nature Geoscience, 2017, 10, 324-325.	5.4	71
56	Potential effects of climate change on streambed scour and risks to salmonid survival in snowâ€dominated mountain basins. Hydrological Processes, 2013, 27, 750-765.	1.1	70
57	Using high resolution tracer data to constrain water storage, flux and age estimates in a spatially distributed rainfallâ€runoff model. Hydrological Processes, 2016, 30, 4761-4778.	1.1	69
58	Using isotopes to constrain water flux and age estimates in snow-influenced catchments using the STARR (Spatially distributed Tracer-Aided Rainfallâ€“Runoff) model. Hydrology and Earth System Sciences, 2017, 21, 5089-5110.	1.9	69
59	Assessing the value of highâ€resolution isotope tracer data in the stepwise development of a lumped conceptual rainfallâ€“runoff model. Hydrological Processes, 2010, 24, 2335-2348.	1.1	67
60	Scale-dependent groundwater contributions influence patterns of winter baseflow stream chemistry in boreal catchments. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 847-858.	1.3	66
61	Assessing the environmental controls on Scots pine transpiration and the implications for water partitioning in a boreal headwater catchment. Agricultural and Forest Meteorology, 2017, 240-241, 58-66.	1.9	66
62	Conceptualization in catchment modelling: simply learning?. Hydrological Processes, 2008, 22, 2389-2393.	1.1	65
63	Catchmentâ€scale estimates of flow path partitioning and water storage based on transit time and runoff modelling. Hydrological Processes, 2011, 25, 3960-3976.	1.1	64
64	High riverine CO2 emissions at the permafrost boundary of Western Siberia. Nature Geoscience, 2018, 11, 825-829.	5.4	64
65	Controls on snowmelt water mean transit times in northern boreal catchments. Hydrological Processes, 2010, 24, 1672-1684.	1.1	62
66	Sensitivity of mean transit time estimates to model conditioning and data availability. Hydrological Processes, 2011, 25, 980-990.	1.1	62
67	A comparison of wetness indices for the prediction of observed connected saturated areas under contrasting conditions. Earth Surface Processes and Landforms, 2014, 39, 399-413.	1.2	62
68	Linking highâ€frequency DOC dynamics to the age of connected water sources. Water Resources Research, 2016, 52, 5232-5247.	1.7	62
69	Towards a simple dynamic process conceptualization in rainfallâ€“runoff models using multiâ€criteria calibration and tracers in temperate, upland catchments. Hydrological Processes, 2010, 24, 260-275.	1.1	60
70	Baseflow dynamics: Multi-tracer surveys to assess variable groundwater contributions to montane streams under low flows. Journal of Hydrology, 2015, 527, 1021-1033.	2.3	60
71	Integrated surface-subsurface model to investigate the role of groundwater in headwater catchment runoff generation: A minimalist approach to parameterisation. Journal of Hydrology, 2017, 547, 664-677.	2.3	60
72	Use of color maps and wavelet coherence to discern seasonal and interannual climate influences on streamflow variability in northern catchments. Water Resources Research, 2013, 49, 6194-6207.	1.7	59

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73	A preliminary assessment of water partitioning and ecohydrological coupling in northern headwaters using stable isotopes and conceptual runoff models. Hydrological Processes, 2015, 29, 5153-5173.	1.1	57
74	Transit time distributions of a conceptual model: their characteristics and sensitivities. Hydrological Processes, 2010, 24, 1719-1729.	1.1	56
75	Groundwaterâ€“surface water interactions in upland Scottish rivers: hydrological, hydrochemical and ecological implications. Scottish Journal of Geology, 2005, 41, 39-49.	0.1	55
76	Catchments on the cusp? Structural and functional change in northern ecohydrology. Hydrological Processes, 2013, 27, 766-774.	1.1	55
77	Comparison of threshold hydrologic response across northern catchments. Hydrological Processes, 2015, 29, 3575-3591.	1.1	55
78	Riparian wetland rehabilitation and beaver re-colonization impacts on hydrological processes and water quality in a lowland agricultural catchment. Science of the Total Environment, 2020, 699, 134302.	3.9	54
79	Storage, mixing, and fluxes of water in the critical zone across northern environments inferred by stable isotopes of soil water. Hydrological Processes, 2018, 32, 1720-1737.	1.1	52
80	Deciphering key processes controlling rainfall isotopic variability during extreme tropical cyclones. Nature Communications, 2019, 10, 4321.	5.8	52
81	Relative influence of upland and lowland headwaters on the isotope hydrology and transit times of larger catchments. Journal of Hydrology, 2011, 400, 438-447.	2.3	51
82	Using isotopes to incorporate tree water storage and mixing dynamics into a distributed ecohydrologic modelling framework. Ecohydrology, 2020, 13, e2201.	1.1	51
83	Stable isotopes of water reveal differences in plant â€“ soil water relationships across northern environments. Hydrological Processes, 2021, 35, e14023.	1.1	51
84	Variability in stream discharge and temperature: a preliminary assessment of the implications for juvenile and spawning Atlantic salmon. Hydrology and Earth System Sciences, 2005, 9, 193-208.	1.9	50
85	Seasonal and interâ€annual variability in hyporheic water quality revealed by continuous monitoring in a salmon spawning stream. River Research and Applications, 2009, 25, 1304-1319.	0.7	50
86	Linking metrics of hydrological function and transit times to landscape controls in a heterogeneous mesoscale catchment. Hydrological Processes, 2012, 26, 405-420.	1.1	49
87	Temporal dynamics in dominant runoff sources and flow paths in the <scp>A</scp>ndean <scp>P</scp>Ã¡ramo. Water Resources Research, 2017, 53, 5998-6017.	1.7	49
88	Modeling the isotopic evolution of snowpack and snowmelt: Testing a spatially distributed parsimonious approach. Water Resources Research, 2017, 53, 5813-5830.	1.7	49
89	Seasonal controls on DOC dynamics in nested upland catchments in NE Scotland. Hydrological Processes, 2011, 25, 1647-1658.	1.1	48
90	What can we learn from multi-data calibration of a process-based ecohydrological model?. Environmental Modelling and Software, 2018, 101, 301-316.	1.9	48

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91	INFLUENCE OF SCALE ON THERMAL CHARACTERISTICS IN A LARGE MONTANE RIVER BASIN. River Research and Applications, 2013, 29, 403-419.	0.7	47
92	Taming the flood-How far can we go with trees?. Hydrological Processes, 2017, 31, 3122-3126.	1.1	47
93	The influence of hydrology and hydraulics on salmonids between spawning and emergence: implications for the management of flows in regulated rivers. Fisheries Management and Ecology, 2012, 19, 464-474.	1.0	45
94	Is the Composition of Dissolved Organic Carbon Changing in Upland Acidic Streams?. Environmental Science & Technology, 2009, 43, 7748-7753.	4.6	44
95	Interpretation of homogeneity in Î´¹⁸O signatures of stream water in a nested subâ€catchment system in northâ€east Scotland. Hydrological Processes, 2008, 22, 4767-4782.	1.1	43
96	Will catchment characteristics moderate the projected effects of climate change on flow regimes in the Scottish Highlands?. Hydrological Processes, 2013, 27, 687-699.	1.1	43
97	Quantifying the effects of land use and model scale on water partitioning and water ages using tracer-aided ecohydrological models. Hydrology and Earth System Sciences, 2021, 25, 2239-2259.	1.9	43
98	Spatial organization of groundwater dynamics and streamflow response from different hydropedological units in a montane catchment. Hydrological Processes, 2016, 30, 3735-3753.	1.1	42
99	Using lumped conceptual rainfallâ€“runoff models to simulate daily isotope variability with fractionation in a nested mesoscale catchment. Advances in Water Resources, 2011, 34, 383-394.	1.7	40
100	Ecohydrological modelling with <scp>EcH₂Oâ€iso</scp> to quantify forest and grassland effects on water partitioning and flux ages. Hydrological Processes, 2019, 33, 2174-2191.	1.1	40
101	Using water stable isotopes to understand evaporation, moisture stress, and re-wetting in catchment forest and grassland soils of the summer drought of 2018. Hydrology and Earth System Sciences, 2020, 24, 3737-3752.	1.9	40
102	Assessing nested hydrological and hydrochemical behaviour of a mesoscale catchment using continuous tracer data. Journal of Hydrology, 2007, 336, 430-443.	2.3	39
103	Fine scale variability of hyporheic hydrochemistry in salmon spawning gravels with contrasting groundwater-surface water interactions. Hydrogeology Journal, 2009, 17, 161-174.	0.9	38
104	Can time domain and source area tracers reduce uncertainty in rainfallâ€runoff models in larger heterogeneous catchments?. Water Resources Research, 2012, 48, .	1.7	37
105	Modelling the impacts of land-cover change on streamflow dynamics of a tropical rainforest headwater catchment. Hydrological Sciences Journal, 2012, 57, 1543-1561.	1.2	37
106	Water sources and mixing in riparian wetlands revealed by tracers and geospatial analysis. Water Resources Research, 2016, 52, 456-470.	1.7	37
107	Water ages in the critical zone of long-term experimental sites in northern latitudes. Hydrology and Earth System Sciences, 2018, 22, 3965-3981.	1.9	37
108	A simple topography-driven and calibration-free runoff generation module. Hydrology and Earth System Sciences, 2019, 23, 787-809.	1.9	37

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109	Isotopic and geochemical tracers reveal similarities in transit times in contrasting mesoscale catchments. Hydrological Processes, 2010, 24, 1211-1224.	1.1	36
110	Change in winter climate will affect dissolved organic carbon and water fluxes in midâ€toâ€high latitude catchments. Hydrological Processes, 2013, 27, 700-709.	1.1	35
111	Integrating parsimonious models of hydrological connectivity and soil biogeochemistry to simulate stream DOC dynamics. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1030-1047.	1.3	35
112	Influence of hydrological regimes on the preâ€spawning entry of Atlantic salmon (Salmo salar L.) into an upland river. River Research and Applications, 2008, 24, 528-542.	0.7	34
113	Using stable isotopes to estimate travel times in a dataâ€sparse Arctic catchment: Challenges and possible solutions. Hydrological Processes, 2018, 32, 1936-1952.	1.1	34
114	Advancing ecohydrology in the 21st century: A convergence of opportunities. Ecohydrology, 2020, 13, e2208.	1.1	34
115	Assessing urbanization impacts on catchment transit times. Geophysical Research Letters, 2014, 41, 442-448.	1.5	33
116	Resistance and resilience to droughts: hydropedological controls on catchment storage and runâ€off response. Hydrological Processes, 2015, 29, 4579-4593.	1.1	33
117	Using geophysical surveys to test tracerâ€based storage estimates in headwater catchments. Hydrological Processes, 2016, 30, 4434-4445.	1.1	33
118	Using repeat electrical resistivity surveys to assess heterogeneity in soil moisture dynamics under contrasting vegetation types. Journal of Hydrology, 2018, 559, 684-697.	2.3	33
119	Isotopeâ€aided modelling of ecohydrologic fluxes and water ages under mixed land use in Central Europe: The 2018 drought and its recovery. Hydrological Processes, 2020, 34, 3406-3425.	1.1	33
120	Characterizing Pb Mobilization from Upland Soils to Streams Using ²⁰⁶Pb/²⁰⁷Pb Isotopic Ratios. Environmental Science & Technology, 2010, 44, 243-249.	4.6	32
121	Influence of forest and shrub canopies on precipitation partitioning and isotopic signatures. Hydrological Processes, 2017, 31, 4282-4296.	1.1	32
122	Permafrost and lakes control river isotope composition across a boreal Arctic transect in the Western Siberian lowlands. Environmental Research Letters, 2018, 13, 034028.	2.2	32
123	Modelling the effects of land cover and climate change on soil water partitioning in a boreal headwater catchment. Journal of Hydrology, 2018, 558, 520-531.	2.3	32
124	Climate-phenology-hydrology interactions in northern high latitudes: Assessing the value of remote sensing data in catchment ecohydrological studies. Science of the Total Environment, 2019, 656, 19-28.	3.9	32
125	Measurements and modelling of storage dynamics across scales. Hydrological Processes, 2011, 25, 3831-3835.	1.1	31
126	Critical Zone Storage Controls on the Water Ages of Ecohydrological Outputs. Geophysical Research Letters, 2020, 47, e2020GL088897.	1.5	31

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127	Urban water systems under climate stress: An isotopic perspective from Berlin, Germany. Hydrological Processes, 2020, 34, 3758-3776.	1.1	30
128	Are transit times useful processâ€based tools for flow prediction and classification in ungauged basins in montane regions?. Hydrological Processes, 2010, 24, 1685-1696.	1.1	29
129	A coupled hydrologyâ€“biogeochemistry model to simulate dissolved organic carbon exports from a permafrostâ€influenced catchment. Hydrological Processes, 2015, 29, 5383-5396.	1.1	29
130	Detecting groundwater discharge dynamics from point-to-catchment scale in a lowland stream: combining hydraulic and tracer methods. Hydrology and Earth System Sciences, 2015, 19, 1871-1886.	1.9	29
131	Using spatial-stream-network models and long-term data to understand and predict dynamics of faecal contamination in a mixed land-use catchment. Science of the Total Environment, 2018, 612, 840-852.	3.9	29
132	An Approach to Assessing Hydrological Influences on Feeding Opportunities of Juvenile Atlantic Salmon (Salmo salar): A Case Study of Two Contrasting years in a Small, Nursery Stream. Hydrobiologia, 2005, 549, 65-77.	1.0	28
133	Redox dynamics in the active layer of an Arctic headwater catchment; examining the potential for transfer of dissolved methane from soils to stream water. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 2776-2792.	1.3	28
134	Scaling effects of riparian peatlands on stable isotopes in runoff and DOC mobilisation. Journal of Hydrology, 2017, 549, 220-235.	2.3	28
135	Quantifying the effects of urban green space on water partitioning and ages using an isotope-based ecohydrological model. Hydrology and Earth System Sciences, 2021, 25, 3635-3652.	1.9	28
136	Does the incorporation of process conceptualization and tracer data improve the structure and performance of a simple rainfallâ€runoff model in a Scottish mesoscale catchment?. Hydrological Processes, 2008, 22, 2461-2474.	1.1	27
137	The influence of forestry on acidification and recovery: Insights from long-term hydrochemical and invertebrate data. Ecological Indicators, 2014, 37, 317-329.	2.6	27
138	Spatial aggregation of timeâ€variant stream water ages in urbanizing catchments. Hydrological Processes, 2015, 29, 3038-3050.	1.1	27
139	Groundwater isoscapes in a montane headwater catchment show dominance of wellâ€mixed storage. Hydrological Processes, 2017, 31, 3504-3519.	1.1	27
140	Spatially distributed tracerâ€aided modelling to explore water and isotope transport, storage and mixing in a pristine, humid tropical catchment. Hydrological Processes, 2018, 32, 3206-3224.	1.1	27
141	Hydrological connectivity and microbiological fluxes in montane catchments: the role of seasonality and climatic variability. Hydrological Processes, 2010, 24, 1231-1235.	1.1	25
142	Catchment processes and heterogeneity at multiple scalesâ€”benchmarking observations, conceptualization and prediction. Hydrological Processes, 2010, 24, 2203-2208.	1.1	25
143	Using hydrochemical tracers to conceptualise hydrological function in a larger scale catchment draining contrasting geologic provinces. Journal of Hydrology, 2011, 408, 164-177.	2.3	25
144	Characterizing the age distribution of catchment evaporative losses. Hydrological Processes, 2016, 30, 1308-1312.	1.1	25

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145	Hydroclimatic influences on non-stationary transit time distributions in a boreal headwater catchment. Journal of Hydrology, 2016, 543, 7-16.	2.3	25
146	Abundant pre-industrial carbon detected in Canadian Arctic headwaters: implications for the permafrost carbon feedback. Environmental Research Letters, 2018, 13, 034024.	2.2	25
147	Spatial distribution of transit times in montane catchments: conceptualization tools for management. Hydrological Processes, 2010, 24, 3283-3288.	1.1	24
148	Projecting climate change impacts on stream flow regimes with tracer-aided runoff models - preliminary assessment of heterogeneity at the mesoscale. Hydrological Processes, 2014, 28, 545-558.	1.1	24
149	Hydraulic modelling of the spatial and temporal variability in Atlantic salmon parr habitat availability in an upland stream. Science of the Total Environment, 2017, 601-602, 1046-1059.	3.9	24
150	Groundwater dynamics at the hillslopeâ€“riparian interface in a year with extreme winter rainfall. Journal of Hydrology, 2018, 564, 509-528.	2.3	24
151	Hysteretic response of sap flow in Scots pine (<scp>Pinus sylvestris</scp>) to meteorological forcing in a humid lowâ€energy headwater catchment. Ecohydrology, 2019, 12, e2125.	1.1	24
152	Assessing the influence of soil freezeâ€“thaw cycles on catchment water storageâ€“fluxâ€“age interactions using a tracer-aided ecohydrological model. Hydrology and Earth System Sciences, 2019, 23, 3319-3334.	1.9	22
153	Spatially distributed tracer-aided runoff modelling and dynamics of storage and water ages in a permafrost-influenced catchment. Hydrology and Earth System Sciences, 2019, 23, 2507-2523.	1.9	22
154	Topographic, pedologic and climatic interactions influencing streamflow generation at multiple catchment scales. Hydrological Processes, 2012, 26, 3858-3874.	1.1	21
155	The Isotope Hydrology of a Large River System Regulated for Hydropower. River Research and Applications, 2015, 31, 335-349.	0.7	21
156	Modelling storageâ€driven connectivity between landscapes and riverscapes: towards a simple framework for longâ€term ecohydrological assessment. Hydrological Processes, 2016, 30, 2482-2497.	1.1	21
157	Improving the Jarvis-type model with modified temperature and radiation functions for sap flow simulations. Journal of Hydrology, 2020, 587, 124981.	2.3	21
158	Seasonality of epCO₂ at different scales along an integrated river continuum within the Dee basin, NE Scotland. Hydrological Processes, 2009, 23, 2929-2942.	1.1	20
159	ASSESSING THE CUMULATIVE IMPACTS OF HYDROPOWER REGULATION ON THE FLOW CHARACTERISTICS OF A LARGE ATLANTIC SALMON RIVER SYSTEM. River Research and Applications, 2014, 30, 456-475.	0.7	20
160	Characterization of surface water isotope spatial patterns of Scotland. Journal of Geochemical Exploration, 2018, 194, 71-80.	1.5	20
161	Using isotopes to understand landscapeâ€scale connectivity in a groundwaterâ€dominated, lowland catchment under drought conditions. Hydrological Processes, 2021, 35, e14197.	1.1	20
162	Land use and hydroclimatic influences on Faecal Indicator Organisms in two large Scottish catchments: Towards land use-based models as screening tools. Science of the Total Environment, 2012, 434, 110-122.	3.9	19

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163	Hydroclimatic controls on non-stationary stream water ages in humid tropical catchments. Journal of Hydrology, 2016, 542, 231-240.	2.3	19
164	Testing the maximum entropy production approach for estimating evapotranspiration from closed canopy shrubland in a lowâ€energy humid environment. Hydrological Processes, 2017, 31, 4613-4621.	1.1	19
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