Chris Soulsby

List of Publications by Year
in descending order

314 papers	15,243 citations	11608 70 h-index	33814 99 g-index
321 all docs	321 docs citations	321 times ranked	8149 citing authors

#	Article	IF	Citations
1	How old is streamwater? Open questions in catchment transit time conceptualization, modelling and analysis. Hydrological Processes, 2010, 24, 1745-1754.	1.1	276
2	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
3	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
4	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
5	How does landscape structure influence catchment transit time across different geomorphic provinces?. Hydrological Processes, 2009, 23, 945-953.	1.1	207
6	Fine sediment influence on salmonid spawning habitat in a lowland agricultural stream: a preliminary assessment. Science of the Total Environment, 2001, 265, 295-307.	3.9	187
7	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
8	Isotope hydrology of the Allt a' Mharcaidh catchment, Cairngorms, Scotland: implications for hydrological pathways and residence times. Hydrological Processes, 2000, 14, 747-762.	1.1	171
9	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
10	Hydrological influences on hyporheic water quality: implications for salmon egg survival. Hydrological Processes, 2004, 18, 1543-1560.	1.1	157
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	Variation in river water temperatures in an upland stream over a 30-year period. Science of the Total Environment, 2001, 265, 195-207.	3.9	141
16	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
17	Regionalization of transit time estimates in montane catchments by integrating landscape controls. Water Resources Research, 2009, 45, .	1.7	136
18	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

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19	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
20	A comparison of forest and moorland stream microclimate, heat exchanges and thermal dynamics. Hydrological Processes, 2008, 22, 919-940.	1.1	131
21	The dispersal characteristics of the invasive plant Mimulus guttatus and the ecological significance of increased occurrence of high-flow events. Journal of Ecology, 2006, 94, 1080-1091.	1.9	129
22	Using long-term data sets to understand transit times in contrasting headwater catchments. Journal of Hydrology, 2009, 367, 237-248.	2.3	128
23	Hydrogeochemistry of shallow groundwater in an upland Scottish catchment. Hydrological Processes, 1998, 12, 1111-1127.	1.1	126
24	Heat exchanges and temperatures within a salmon spawning stream in the Cairngorms, Scotland: seasonal and sub-seasonal dynamics. River Research and Applications, 2004, 20, 635-652.	0.7	125
25	Modelling catchmentâ€scale water storage dynamics: reconciling dynamic storage with tracerâ€inferred passive storage. Hydrological Processes, 2011, 25, 3924-3936.	1.1	125
26	Survival of salmonid eggs in a degraded gravel-bed stream: effects of groundwater-surface water interactions. River Research and Applications, 2003, 19, 303-316.	0.7	122
27	Comparing chloride and water isotopes as hydrological tracers in two Scottish catchments. Hydrological Processes, 2010, 24, 1631-1645.	1.1	121
28	Advancing tracerâ€aided rainfallâ€“runoff modelling: a review of progress, problems and unrealised potential. Hydrological Processes, 2015, 29, 5227-5240.	1.1	120
29	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
30	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
31	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
32	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
33	Interâ€comparison of hydroâ€climatic regimes across northern catchments: synchronicity, resistance and resilience. Hydrological Processes, 2010, 24, 3591-3602.	1.1	103
34	Identifying and assessing uncertainty in hydrological pathways: a novel approach to end member mixing in a Scottish agricultural catchment. Journal of Hydrology, 2003, 274, 109-128.	2.3	102
35	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
36	The essential value of longâ€term experimental data for hydrology and water management. Water Resources Research, 2017, 53, 2598-2604.	1.7	102

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37	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
38	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
39	Catchment-scale controls on groundwater-surface water interactions in the hyporheic zone: implications for salmon embryo survival. River Research and Applications, 2005, 21, 977-989.	0.7	97
40	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
41	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
42	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
43	Linking channel geomorphic characteristics to spatial patterns of spawning activity and discharge use by Atlantic salmon (Salmo salar L.). Geomorphology, 2004, 60, 21-35.	1.1	94
44	Using tracers to upscale flow path understanding in mesoscale mountainous catchments: two examples from Scotland. Journal of Hydrology, 2004, 291, 174-196.	2.3	92
45	Evaporation fractionation in a peatland drainage network affects stream water isotope composition. Water Resources Research, 2017, 53, 851-866.	1.7	92
46	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
47	Hydrological controls on nutrient concentrations and fluxes in agricultural catchments. Science of the Total Environment, 2002, 294, 95-110.	3.9	90
48	Tracers and transit times: windows for viewing catchment scale storage?. Hydrological Processes, 2009, 23, 3503-3507.	1.1	90
49	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
50	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
51	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
52	Conceptualizing catchment processes: simply too complex?. Hydrological Processes, 2008, 22, 1727-1730.	1.1	86
53	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
54	Do timeâ€variable tracers aid the evaluation of hydrological model structure? A multimodel approach. Water Resources Research, 2012, 48, .	1.7	86

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55	Stable isotope tracers as diagnostic tools in upscaling flow path understanding and residence time estimates in a mountainous mesoscale catchment. Hydrological Processes, 2005, 19, 2291-2307.	1.1	85
56	The influence of riparian woodland on stream temperatures: implications for the performance of juvenile salmonids. Hydrological Processes, 2008, 22, 968-979.	1.1	85
57	Catchment transit times and landscape controlsâ€"does scale matter?. Hydrological Processes, 2010, 24, 117-125.	1.1	85
58	Measuring and Modeling Stable Isotopes of Mobile and Bulk Soil Water. Vadose Zone Journal, 2018, 17, 1-18.	1.3	84
59	PHABSIM modelling of Atlantic salmon spawning habitat in an upland stream: testing the influence of habitat suitability indices on model output. River Research and Applications, 2005, 21, 1021-1034.	0.7	83
60	A tracer-based assessment of hydrological pathways at different spatial scales in a mesoscale Scottish catchment. Hydrological Processes, 2003, 17, 759-777.	1.1	81
61	Scaling up and out in runoff process understanding: insights from nested experimental catchment studies. Hydrological Processes, 2006, 20, 2461-2465.	1.1	81
62	Identifying runâ€off contributions during meltâ€induced runâ€off events in a glacierized alpine catchment. Hydrological Processes, 2016, 30, 343-364.	1.1	81
63	Riparian zone influence on stream water chemistry at different spatial scales: a GIS-based modelling approach, an example for the Dee, NE Scotland. Science of the Total Environment, 2001, 280, 173-193.	3.9	80
64	Hydraulic and sedimentary characteristics of habitat utilized by Atlantic salmon for spawning in the Girnock Burn, Scotland. Fisheries Management and Ecology, 1998, 5, 241-254.	1.0	77
65	Stable Isotope Analysis Reveals Lower-Order River Dissolved Inorganic Carbon Pools Are Highly Dynamic. Environmental Science & Technology, 2007, 41, 6156-6162.	4.6	77
66	Modelling landscape controls on dissolved organic carbon sources and fluxes to streams. Biogeochemistry, 2015, 122, 361-374.	1.7	77
67	The influence of riparian woodland on the spatial and temporal variability of stream water temperatures in an upland salmon stream. Hydrology and Earth System Sciences, 2004, 8, 449-459.	1.9	76
68	How Hydrologic Connectivity Regulates Water Quality in River Corridors. Journal of the American Water Resources Association, 2019, 55, 369-381.	1.0	75
69	Hydraulic and sedimentary controls on the availability and use of Atlantic salmon (Salmo salar) spawning habitat in the River Dee system, north-east Scotland. Geomorphology, 2002, 45, 291-308.	1.1	74
70	Catchment data for process conceptualization: simply not enough?. Hydrological Processes, 2008, 22, 2057-2061.	1.1	74
71	Connecting precipitation inputs and soil flow pathways to stream water in contrasting boreal catchments. Hydrological Processes, 2015, 29, 3546-3555.	1.1	74
72	Heterogeneity in ground water-surface water interactions in the hyporheic zone of a salmonid spawning stream. Hydrological Processes, 2003, 17, 601-617.	1.1	73

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73	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
74	The prediction and management of water quality in a relatively unpolluted major Scottish catchment: current issues and experimental approaches. Science of the Total Environment, 1997, 194-195, 419-435.	3.9	72
75	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
76	Save northern high-latitude catchments. Nature Geoscience, 2017, 10, 324-325.	5.4	71
77	Role of discharge and temperature variation in determining invertebrate community structure in a regulated river. River Research and Applications, 2007, 23, 651-669.	0.7	70
78	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
79	Modelling streamwater quality under varying hydrological conditions at different spatial scales. Journal of Hydrology, 1999, 217, 266-283.	2.3	69
80	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
81	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
82	Groundwaterâ€“surface-water interactions in a braided river: a tracer-based assessment. Hydrological Processes, 2004, 18, 1315-1332.	1.1	68
83	Key drivers controlling stable isotope variations in daily precipitation of Costa Rica: Caribbean Sea versus Eastern Pacific Ocean moisture sources. Quaternary Science Reviews, 2016, 131, 250-261.	1.4	68
84	Factors regulating the spatial and temporal distribution of solute concentrations in a major river system in NE Scotland. Science of the Total Environment, 1998, 221, 93-110.	3.9	67
85	High-frequency logging technologies reveal state-dependent hyporheic process dynamics: implications for hydroecological studies. Hydrological Processes, 2006, 20, 615-622.	1.1	67
86	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
87	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
88	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
89	Conceptualization in catchment modelling: simply learning?. Hydrological Processes, 2008, 22, 2389-2393.	1.1	65
90	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

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91	High riverine CO2 emissions at the permafrost boundary of Western Siberia. Nature Geoscience, 2018, 11, 825-829.	5.4	64
92	Long-residence groundwater effects on incubating salmonid eggs: low hyporheic oxygen impairs embryo development. Canadian Journal of Fisheries and Aquatic Sciences, 2004, 61, 2278-2287.	0.7	62
93	Sensitivity of mean transit time estimates to model conditioning and data availability. Hydrological Processes, 2011, 25, 980-990.	1.1	62
94	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
95	Linking highâ€frequency DOC dynamics to the age of connected water sources. Water Resources Research, 2016, 52, 5232-5247.	1.7	62
96	Hydrochemistry of the hyporheic zone in salmon spawning gravels: a preliminary assessment in a degraded agricultural stream. River Research and Applications, 2001, 17, 651-665.	1.2	61
97	Modelling water chemistry for a major Scottish river from catchment attributes. Journal of Applied Ecology, 2000, 37, 171-184.	1.9	60
98	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
99	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
100	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
101	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
102	Characterizing the heterogeneity of karst critical zone and its hydrological function: An integrated approach. Hydrological Processes, 2018, 32, 2932-2946.	1.1	58
103	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
104	Transit time distributions of a conceptual model: their characteristics and sensitivities. Hydrological Processes, 2010, 24, 1719-1729.	1.1	56
105	Groundwaterâ€surface water interactions in upland Scottish rivers: hydrological, hydrochemical and ecological implications. Scottish Journal of Geology, 2005, 41, 39-49.	0.1	55
106	Catchments on the cusp? Structural and functional change in northern ecohydrology. Hydrological Processes, 2013, 27, 766-774.	1.1	55
107	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
108	Water quality in the Scottish uplands: a hydrological perspective on catchment hydrochemistry. Science of the Total Environment, 2002, 294, 73-94.	3.9	53

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109	Water source dynamics in a glacierized alpine river basin (Taillon-GabiÃ©tous, French PyrÃ©nÃ©es). Water Resources Research, 2006, 42, .	1.7	53
110	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
111	Deciphering key processes controlling rainfall isotopic variability during extreme tropical cyclones. Nature Communications, 2019, 10, 4321.	5.8	52
112	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
113	Storage dynamics, hydrological connectivity and flux ages in a karst catchment: conceptual modelling using stable isotopes. Hydrology and Earth System Sciences, 2019, 23, 51-71.	1.9	51
114	Using isotopes to incorporate tree water storage and mixing dynamics into a distributed ecohydrologic modelling framework. Ecohydrology, 2020, 13, e2201.	1.1	51
115	Stable isotopes of water reveal differences in plant â€“ soil water relationships across northern environments. Hydrological Processes, 2021, 35, e14023.	1.1	51
116	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
117	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
118	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
119	Modeling the isotopic evolution of snowpack and snowmelt: Testing a spatially distributed parsimonious approach. Water Resources Research, 2017, 53, 5813-5830.	1.7	49
120	Thermal regime in the hyporheic zone of two contrasting salmonid spawning streams: ecological and hydrological implications. Fisheries Management and Ecology, 2002, 9, 1-10.	1.0	48
121	Seasonal controls on DOC dynamics in nested upland catchments in NE Scotland. Hydrological Processes, 2011, 25, 1647-1658.	1.1	48
122	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
123	INFLUENCE OF SCALE ON THERMAL CHARACTERISTICS IN A LARGE MONTANE RIVER BASIN. River Research and Applications, 2013, 29, 403-419.	0.7	47
124	Taming the flood-How far can we go with trees?. Hydrological Processes, 2017, 31, 3122-3126.	1.1	47
125	Developing ecologically acceptable river flow regimes: a case study of Kielder reservoir and the Kielder water transfer system. Fisheries Management and Ecology, 2001, 8, 463-485.	1.0	45
126	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

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127	Catchmentâ€scale conceptual modelling of water and solute transport in the dual flow system of the karst critical zone. Hydrological Processes, 2017, 31, 3421-3436.	1.1	44
128	Discharge and hydraulic interactions in contrasting channel morphologies and their influence on site utilization by spawning Atlantic salmon (Salmo salar). Canadian Journal of Fisheries and Aquatic Sciences, 2006, 63, 2567-2585.	0.7	43
129	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
130	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
131	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
132	Assessing discharge use by spawning Atlantic salmon: A comparison of discharge electivity indices and PHABSIM simulations. River Research and Applications, 2002, 18, 383-395.	0.7	42
133	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
134	Seasonality, water quality trends and biological responses in four streams in the Cairngorm Mountains, Scotland. Hydrology and Earth System Sciences, 2001, 5, 433-450.	1.9	40
135	Invertebrate communities and hydrological variation in Cairngorm mountain streams. Hydrobiologia, 2001, 462, 205-219.	1.0	40
136	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
137	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
138	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
139	Flow Requirements of Spawning Atlantic Salmon in an Upland Stream: Implications for Waterâ€Resource Management. Water and Environment Journal, 2001, 15, 1-8.	1.0	39
140	Assessing nested hydrological and hydrochemical behaviour of a mesoscale catchment using continuous tracer data. Journal of Hydrology, 2007, 336, 430-443.	2.3	39
141	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
142	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
143	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
144	Water sources and mixing in riparian wetlands revealed by tracers and geospatial analysis. Water Resources Research, 2016, 52, 456-470.	1.7	37

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145	Using stable water isotopes to identify spatio-temporal controls on groundwater recharge in two contrasting East African aquifer systems. Hydrological Sciences Journal, 2018, 63, 862-877.	1.2	37
146	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
147	A simple topography-driven and calibration-free runoff generation module. Hydrology and Earth System Sciences, 2019, 23, 787-809.	1.9	37
148	Isotopic and geochemical tracers reveal similarities in transit times in contrasting mesoscale catchments. Hydrological Processes, 2010, 24, 1211-1224.	1.1	36
149	Reversibility of stream acidification in the Cairngorm region of Scotland. Journal of Hydrology, 1997, 195, 291-311.	2.3	35
150	Influence of snow on the hydrology and hydrochemistry of the Allt a' Mharcaidh, Cairngorm mountains, Scotland. Science of the Total Environment, 1998, 217, 59-70.	3.9	35
151	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
152	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
153	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
154	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
155	Modelling instream nitrogen variability in the Dee catchment, NE Scotland. Science of the Total Environment, 2001, 265, 229-252.	3.9	33
156	Towards integrating tracer studies in conceptual rainfall-runoff models: recent insights from a sub-arctic catchment in the Cairngorm Mountains, Scotland. Hydrological Processes, 2003, 17, 403-416.	1.1	33
157	Assessing urbanization impacts on catchment transit times. Geophysical Research Letters, 2014, 41, 442-448.	1.5	33
158	Resistance and resilience to droughts: hydropedological controls on catchment storage and runâ€off response. Hydrological Processes, 2015, 29, 4579-4593.	1.1	33
159	Using geophysical surveys to test tracerâ€based storage estimates in headwater catchments. Hydrological Processes, 2016, 30, 4434-4445.	1.1	33
160	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
161	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
162	Iron and manganese cycling in the storm runoff of a Scottish upland catchment. Journal of Hydrology, 2006, 326, 59-78.	2.3	32

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163	Characterizing Pb Mobilization from Upland Soils to Streams Using ²⁰⁶Pb/²⁰⁷Pb Isotopic Ratios. Environmental Science & Technology, 2010, 44, 243-249.	4.6	32
164	Influence of forest and shrub canopies on precipitation partitioning and isotopic signatures. Hydrological Processes, 2017, 31, 4282-4296.	1.1	32
165	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
166	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
167	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
168	Critical Zone Storage Controls on the Water Ages of Ecohydrological Outputs. Geophysical Research Letters, 2020, 47, e2020GL088897.	1.5	31
169	Coupled hydrological and biogeochemical modelling of nitrogen transport in the karst critical zone. Science of the Total Environment, 2020, 732, 138902.	3.9	31
170	Urban water systems under climate stress: An isotopic perspective from Berlin, Germany. Hydrological Processes, 2020, 34, 3758-3776.	1.1	30
171	On modelling the effects of afforestation on acidification in heterogeneous catchments at different spatial and temporal scales. Journal of Hydrology, 2001, 250, 149-169.	2.3	29
172	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
173	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
174	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
175	The relationship between sediment mobilisation and the entry of Baetis mayflies into the water column in a laboratory flume. Hydrobiologia, 2005, 533, 115-122.	1.0	28
176	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
177	Scaling effects of riparian peatlands on stable isotopes in runoff and DOC mobilisation. Journal of Hydrology, 2017, 549, 220-235.	2.3	28
178	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
179	Hydrogeochemsitry of montane springs and their influence on streams in the Cairngorm mountains, Scotland. Hydrology and Earth System Sciences, 1999, 3, 409-419.	1.9	27
180	Assessing the vulnerability of riparian vegetation to invasion by Mimulus guttatus: relative importance of biotic and abiotic variables in determining species occurrence and abundance. Diversity and Distributions, 2008, 14, 412-421.	1.9	27

#	Article	IF	Citations
181	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
182	Spatial aggregation of timeâ€variant stream water ages in urbanizing catchments. Hydrological Processes, 2015, 29, 3038-3050.	1.1	27
183	Groundwater isoscapes in a montane headwater catchment show dominance of wellâ€mixed storage. Hydrological Processes, 2017, 31, 3504-3519.	1.1	27
184	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
185	Opportunities and challenges in using catchment-scale storage estimates from cosmic ray neutron sensors for rainfall-runoff modelling. Journal of Hydrology, 2020, 586, 124878.	2.3	27
186	Influence of soil hydrological pathways on stream aluminium chemistry at Llyn Brianne, mid-wales. Environmental Pollution, 1993, 81, 51-60.	3.7	26
187	Hydrogeochemistry of groundwater in coastal wetlands: implications for coastal conservation in Scotland. Science of the Total Environment, 2001, 265, 269-280.	3.9	26
188	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
189	Influence of contrasting riparian forest cover on stream temperature dynamics in salmonid spawning and nursery streams. Ecohydrology, 2013, 6, 380-392.	1.1	25
190	Characterizing the age distribution of catchment evaporative losses. Hydrological Processes, 2016, 30, 1308-1312.	1.1	25
191	Hydroclimatic influences on non-stationary transit time distributions in a boreal headwater catchment. Journal of Hydrology, 2016, 543, 7-16.	2.3	25
192	Modelling hydrological processes and aluminium leaching in an acid soil at Llyn Brianne, Mid-Wales. Journal of Hydrology, 1992, 138, 409-429.	2.3	24
193	Spatial distribution of transit times in montane catchments: conceptualization tools for management. Hydrological Processes, 2010, 24, 3283-3288.	1.1	24
194	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
195	Linking tracers, water age and conceptual models to identify dominant runoff processes in a sparsely monitored humid tropical catchment. Hydrological Processes, 2016, 30, 4477-4493.	1.1	24
196	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
197	Groundwater dynamics at the hillslopeâ€“riparian interface in a year with extreme winter rainfall. Journal of Hydrology, 2018, 564, 509-528.	2.3	24
198	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

#	Article	IF	Citations
199	Using synoptic tracer surveys to assess runoff sources in an Andean headwater catchment in central Chile. Environmental Monitoring and Assessment, 2017, 189, 440.	1.3	23
200	Environmental change, land use and water quality in Scotland: current issues and future prospects. Science of the Total Environment, 2001, 265, 387-394.	3.9	22
201	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
202	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
203	Parameter identification for conceptual modelling using combined behavioural knowledge. Hydrological Processes, 2003, 17, 329-343.	1.1	21
204	Topographic, pedologic and climatic interactions influencing streamflow generation at multiple catchment scales. Hydrological Processes, 2012, 26, 3858-3874.	1.1	21
205	The Isotope Hydrology of a Large River System Regulated for Hydropower. River Research and Applications, 2015, 31, 335-349.	0.7	21
206	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
207	Metrics to assess how longitudinal channel network connectivity and inâ€stream Atlantic salmon habitats are impacted by hydropower regulation. Hydrological Processes, 2017, 31, 2132-2142.	1.1	21
208	Improving the Jarvis-type model with modified temperature and radiation functions for sap flow simulations. Journal of Hydrology, 2020, 587, 124981.	2.3	21
209	A hierarchical model for compositional data analysis. Journal of Agricultural, Biological, and Environmental Statistics, 2005, 10, 19-34.	0.7	20
210	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
211	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
212	Characterization of surface water isotope spatial patterns of Scotland. Journal of Geochemical Exploration, 2018, 194, 71-80.	1.5	20
213	Integration of juvenile habitat quality and river connectivity models to understand and prioritise the management of barriers for Atlantic salmon populations across spatial scales. Science of the Total Environment, 2019, 655, 557-566.	3.9	20
214	Using isotopes to understand landscapeâ€scale connectivity in a groundwaterâ€dominated, lowland catchment under drought conditions. Hydrological Processes, 2021, 35, e14197.	1.1	20
215	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
216	Hydroclimatic controls on non-stationary stream water ages in humid tropical catchments. Journal of Hydrology, 2016, 542, 231-240.	2.3	19

#	Article	IF	Citations
217	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
218	Integrating processâ€based flow and temperature models to assess riparian forests and temperature amelioration in salmon streams. Hydrological Processes, 2018, 32, 776-791.	1.1	19
219	Using soil water isotopes to infer the influence of contrasting urban green space on ecohydrological partitioning. Hydrology and Earth System Sciences, 2021, 25, 927-943.	1.9	19
220	Modelling river-aquifer interactions at the Spey Abstraction Scheme, Scotland: implications for aquifer protection. Quarterly Journal of Engineering Geology and Hydrogeology, 1997, 30, 123-136.	0.8	18
221	Application of a linear regression model to assess the influence of urbanised areas and grazing pastures on the microbiological quality of rural streams. Environmental Monitoring and Assessment, 2014, 186, 7141-7155.	1.3	18
222	Conceptual Modelling to Assess Hydrological Impacts and Evaluate Environmental Flow Scenarios in Montane River Systems Regulated for Hydropower. River Research and Applications, 2015, 31, 1066-1081.	0.7	18
223	Heat-based hyporheic flux calculations in heterogeneous salmon spawning gravels. Aquatic Sciences, 2016, 78, 203-213.	0.6	18
224	Long-term trends in stream chemistry and biology in North-East Scotland: Evidence for recovery. Water, Air, and Soil Pollution, 1995, 85, 689-694.	1.1	17
225	Interâ€Basin Water Transfers and Drought Management in the Kielder/Derwent System. Water and Environment Journal, 1999, 13, 213-223.	1.0	17
226	Modelling the evolution of minewater pollution at Polkemmet Colliery, Almond catchment, Scotland. Quarterly Journal of Engineering Geology and Hydrogeology, 1999, 32, 351-362.	0.8	17
227	Characterisation of channel reach morphology and associated controls in deglaciated montane catchments in the Cairngorms, Scotland. Geomorphology, 2011, 132, 176-186.	1.1	17
228	Using highâ€resolution isotope data and alternative calibration strategies for a tracerâ€aided runoff model in a nested catchment. Hydrological Processes, 2017, 31, 3962-3978.	1.1	17
229	Using isotopes to understand the evolution of water ages in disturbed mixed landâ€use catchments. Hydrological Processes, 2020, 34, 972-990.	1.1	17
230	A new method to identify the fluvial regimes used by spawning salmonids. Canadian Journal of Fisheries and Aquatic Sciences, 2009, 66, 1404-1408.	0.7	16
231	Lessons from the 2018 drought for management of local water supplies in upland areas: A tracerâ€based assessment. Hydrological Processes, 2020, 34, 4190-4210.	1.1	16
232	Characterizing the variability of transit time distributions and young water fractions in karst catchments using flux tracking. Hydrological Processes, 2020, 34, 3156-3174.	1.1	16
233	The Rhine River basin. , 2022, , 333-391.		16
234	The Chemistry of Throughfall, Stemflow and Soil Water Beneath Oak Woodland and Moorland Vegetation in Upland Wales. Chemistry and Ecology, 1994, 9, 115-134.	0.6	15

#	Article	IF	Citations
235	Impacts of an inter-basin water transfer: distribution and abundance ofMicronecta poweri (Insecta:) Tj ETQq1 1 0.784314 rgBT /Overl Ecosystems, 2000, 10, 103-115.	0.9	15
236	The role of science in environmental policy: an examination of the local context. Land Use Policy, 2006, 23, 161-169.	2.5	15
237	Landscape influence on small-scale water temperature variations in a moorland catchment. Hydrological Processes, 2015, 29, 3098-3111.	1.1	15
238	A probabilistic approach to quantifying hydrologic thresholds regulating migration of adult Atlantic salmon into spawning streams. Water Resources Research, 2017, 53, 2264-2277.	1.7	15
239	No influence of CO₂ on stable isotope analyses of soil waters with offâ€axis integrated cavity output spectroscopy (OAâ€ICOS). Rapid Communications in Mass Spectrometry, 2017, 31, 430-436.	0.7	15
240	Water-energy-ecosystem nexus in small run-of-river hydropower: Optimal design and policy. Applied Energy, 2020, 280, 115936.	5.1	15
241	A novel index of susceptibility of rivers and their catchments to acidification in regions subject to a maritime influence. Applied Geochemistry, 1999, 14, 1093-1099.	1.4	13
242	Modeling the dynamics of metabolism in montane streams using continuous dissolved oxygen measurements. Water Resources Research, 2013, 49, 5260-5275.	1.7	13
243	Incorporating estimates of capture probability and river network covariance in novel habitat â€“ abundance models: Assessing the effects of conservation stocking on catchment-scale production of juvenile Atlantic salmon (Salmo salar) from a long-term electrofishing dataset. Ecological Indicators, 2018, 93, 302-315.	2.6	13
244	Headwaters drive streamflow and lowland tracer export in a largeâ€scale humid tropical catchment. Hydrological Processes, 2020, 34, 3824-3841.	1.1	13
245	Effects of streamflow isotope sampling strategies on the calibration of a tracerâ€aided rainfallâ€runoff model. Hydrological Processes, 2021, 35, e14223.	1.1	13
246	Xylem water in riparian willow trees (<i>Salix alba</i>) reveals shallow sources of root water uptake by in situ monitoring of stable water isotopes. Hydrology and Earth System Sciences, 2022, 26, 2073-2092.	1.9	13
247	Is Interstitial Velocity a Good Predictor of Salmonid Embryo Survival?. Transactions of the American Fisheries Society, 2011, 140, 898-904.	0.6	12
248	Influence of lowland aquifers and anthropogenic impacts on the isotope hydrology of contrasting mesoscale catchments. Hydrological Processes, 2014, 28, 793-808.	1.1	12
249	Testing a spatially distributed tracerâ€aided runoff model in a snowâ€influenced catchment: Effects of multicriteria calibration on streamwater ages. Hydrological Processes, 2018, 32, 3089-3107.	1.1	12
250	Conceptualizing catchment storage dynamics and nonlinearities. Hydrological Processes, 2018, 32, 3299-3303.	1.1	12
251	On the Use of StorAge Selection Functions to Assess Timeâ€Variant Travel Times in Lakes. Water Resources Research, 2018, 54, 5163-5185.	1.7	12
252	Assessing runoff generation in riparian wetlands: monitoring groundwaterâ€“surface water dynamics at the micro-catchment scale. Environmental Monitoring and Assessment, 2019, 191, 116.	1.3	12

#	Article	IF	Citations
253	To what extent does hydrological connectivity control dynamics of faecal indicator organisms in streams? Initial hypothesis testing using a tracer-aided model. Journal of Hydrology, 2019, 570, 423-435.	2.3	12
254	Modelling nonâ€stationary water ages in a tropical rainforest: A preliminary spatially distributed assessment. Hydrological Processes, 2020, 34, 4776-4793.	1.1	12
255	Structural changes to forests during regeneration affect water flux partitioning, water ages and hydrological connectivity: Insights from tracer-aided ecohydrological modelling. Hydrology and Earth System Sciences, 2021, 25, 4861-4886.	1.9	12
256	Isotope hydrology and water sources in a heavily urbanized stream. Hydrological Processes, 2021, 35, e14377.	1.1	12
257	Using StorAge Selection (SAS) functions to understand flow paths and age distributions in contrasting karst groundwater systems. Journal of Hydrology, 2021, 602, 126785.	2.3	12
258	Seasonal variations in soilâ€“plant interactions in contrasting urban green spaces: Insights from water stable isotopes. Journal of Hydrology, 2022, 612, 127998.	2.3	12
259	Spatial association of nest construction by brown trout Salmo trutta. Journal of Fish Biology, 2011, 78, 713-725.	0.7	11
260	Spatial delineation of groundwaterâ€“surface water interactions through intensive inâ€stream profiling. Hydrological Processes, 2013, 27, 628-634.	1.1	11
261	Catchment Functioning Under Prolonged Drought Stress: Tracerâ€Aided Ecohydrological Modeling in an Intensively Managed Agricultural Catchment. Water Resources Research, 2021, 57, e2020WR029094.	1.7	11
262	Modelling ecohydrological feedbacks in forest and grassland plots under a prolonged drought anomaly in Central Europe 2018â€“2020. Hydrological Processes, 2021, 35, e14325.	1.1	11
263	Hydroclimatic variability and riparian wetland restoration control the hydrology and nutrient fluxes in a lowland agricultural catchment. Journal of Hydrology, 2021, 603, 126904.	2.3	11
264	Modelling temporal variability of in situ soil water and vegetation isotopes reveals ecohydrological couplings in a riparian willow plot. Biogeosciences, 2022, 19, 2465-2485.	1.3	11
265	The environmental context for water quality variation in Scotland. Science of the Total Environment, 2001, 265, 7-14.	3.9	10
266	Storm flow and baseflow response to reduced acid depositionâ€”using Bayesian compositional analysis in hydrograph separation with changing end members. Hydrological Processes, 2010, 24, 2300-2312.	1.1	10
267	Incorporating hydromorphology in strategic approaches to managing flows for salmonids. Fisheries Management and Ecology, 2012, 19, 490-499.	1.0	10
268	Controls on the distribution of channel reach morphology in selectively glaciated catchments. Geomorphology, 2014, 211, 121-133.	1.1	10
269	Linking nitrate dynamics to water age in underground conduit flows in a karst catchment. Journal of Hydrology, 2021, 596, 125699.	2.3	10
270	A longerâ€term perspective on soil moisture, groundwater and stream flow response to the 2018 drought in an experimental catchment in the Scottish Highlands. Hydrological Processes, 2021, 35, e14206.	1.1	10

#	Article	IF	Citations
271	Spatio-temporal variations in stable isotopes in peri-urban catchments: A preliminary assessment of potential and challenges in assessing streamflow sources. Journal of Hydrology, 2021, 600, 126685.	2.3	10
272	Visualization of spatial patterns of connectivity and runoff ages derived from a tracerâ€aided model. Hydrological Processes, 2016, 30, 4893-4895.	1.1	9
273	Spatio-temporal effects of river regulation on habitat quality for Atlantic salmon fry. Ecological Indicators, 2017, 83, 292-302.	2.6	9
274	A general analytical approach for assessing the effects of hydroclimatic variability on fish habitat. Journal of Hydrology, 2018, 566, 520-530.	2.3	9
275	Quantifying the relative importance of stock level, river temperature and discharge on the abundance of juvenile Atlantic salmon (<scp>Salmo salar</scp>). Ecohydrology, 2020, 13, e2231.	1.1	9
276	Disentangling the Influence of Landscape Characteristics, Hydroclimatic Variability and Land Management on Surface Water NO₃â€N Dynamics: Spatially Distributed Modeling Over 30Âyr in a Lowland Mixed Land Use Catchment. Water Resources Research, 2022, 58, .	1.7	9
277	Modelling the potential impact of climate change on a shallow coastal aquifer in northern Scotland. Geological Society Special Publication, 2000, 182, 191-204.	0.8	8
278	Evolution of the spatial and temporal characteristics of the isotope hydrology of a montane river basin. Hydrological Sciences Journal, 2011, 56, 426-442.	1.2	8
279	Hydroclimatic and hydrochemical controls on Plecoptera diversity and distribution in northern freshwater ecosystems. Hydrobiologia, 2012, 693, 39-53.	1.0	8
280	Catchments in the future North: interdisciplinary science for sustainable management in the 21st Century. Hydrological Processes, 2013, 27, 635-639.	1.1	8
281	How can streamflow and climate-landscape data be used to estimate baseflow mean response time?. Journal of Hydrology, 2018, 557, 916-930.	2.3	8
282	Using hysteretic behaviour and hydrograph classification to identify hydrological function across the â€œhillslopeâ€“depressionâ€“streamâ€•continuum in a karst catchment. Hydrological Processes, 2020, 34, 3464-3480.	1.1	8
283	Using storage selection functions to assess mixing patterns and water ages of soil water, evaporation and transpiration. Advances in Water Resources, 2020, 141, 103586.	1.7	8
284	Risk Assessment for a Proposed Groundwater Abstraction Scheme in Strathmore, North-East Scotland: a Modelling Approach. Water and Environment Journal, 1997, 11, 47-55.	1.0	7
285	Peatland conservation in Buchan, northâ€east Scotland: The historic context and contemporary issues. Scottish Geographical Journal, 2000, 116, 283-298.	0.4	7
286	Spatio-temporal diel DOC cycles in a wet, low energy, northern catchment: Highlighting and questioning the sub-daily rhythms of catchment functioning. Journal of Hydrology, 2018, 563, 962-974.	2.3	7
287	Contrasting storage-flux-age interactions revealed by catchment inter-comparison using a tracer-aided runoff model. Journal of Hydrology, 2020, 590, 125226.	2.3	7
288	Estimates of water partitioning in complex urban landscapes with isotopeâ€aided ecohydrological modelling. Hydrological Processes, 2022, 36, .	1.1	7

#	Article	IF	Citations
289	Hydrogeology of a restored coastal dune system in northeastern Scotland. Journal of Coastal Conservation, 1997, 3, 143-154.	0.7	6
290	British and Irish Rivers. , 2009, , 381-419.		6
291	Process realism: flow paths and storage. , 2013, , 53-69.		6
292	Assessing the role of location and scale of Nature Based Solutions for the enhancement of low flows. International Journal of River Basin Management, 2023, 21, 743-758.	1.5	6
293	Influence of groundwater chemistry on hyporheic invertebrate assemblages is revealed by fine-scale sampling. Fundamental and Applied Limnology, 2016, 187, 207-221.	0.4	5
294	An agent-based model that simulates the spatio-temporal dynamics of sources and transfer mechanisms contributing faecal indicator organisms to streams. Part 1: Background and model description. Journal of Environmental Management, 2020, 270, 110903.	3.8	5
295	An agent-based model that simulates the spatio-temporal dynamics of sources and transfer mechanisms contributing faecal indicator organisms to streams. Part 2: Application to a small agricultural catchment. Journal of Environmental Management, 2020, 270, 110905.	3.8	5
296	Critical Zone Response Times and Water Age Relationships Under Variable Catchment Wetness States: Insights Using a Tracerâ€Aided Ecohydrological Model. Water Resources Research, 2022, 58, .	1.7	5
297	Tracer-aided identification of hydrological and biogeochemical controls on in-stream water quality in a riparian wetland. Water Research, 2022, 222, 118860.	5.3	5
298	Groundwater in headwaters: hydrological and ecological significance. Geological Society Special Publication, 2000, 182, 19-34.	0.8	4
299	Hydrology in Scotland: towards a scientific basis for the sustainable management of freshwater resourcesâ€"foreword to thematic issue. Science of the Total Environment, 2002, 294, 3-11.	3.9	4
300	Hydrological science, society and the sustainable management of Scottish freshwaters resources in the 21st century. Science of the Total Environment, 2002, 294, 213-220.	3.9	4
301	Source distribution modelling for endâ€member mixing in hydrology. Environmetrics, 2011, 22, 921-932.	0.6	4
302	Spatial and temporal variability of Atlantic salmon (Salmo salar L.) spawning activity in braided river channels: a preliminary assessment. Aquatic Sciences, 2012, 74, 571-586.	0.6	4
303	Role of riparian wetlands and hydrological connectivity in the dynamics of stream thermal regimes. Hydrology Research, 2018, 49, 634-647.	1.1	4
304	Assessing the seasonal effect of flow regimes on availability of Atlantic salmon fry habitat in an upland Scottish stream. Science of the Total Environment, 2019, 696, 133857.	3.9	4
305	Combining static and portable Cosmic ray neutron sensor data to assess catchment scale heterogeneity in soil water storage and their integrated role in catchment runoff response. Journal of Hydrology, 2021, 601, 126659.	2.3	4
306	Assessing land use influences on isotopic variability and stream water ages in urbanising rural catchments. Isotopes in Environmental and Health Studies, 2022, 58, 277-300.	0.5	4

#	Article	IF	Citations
307	Hydrogeology of a restored coastal dune system in northeastern Scotland. Journal of Coastal Conservation, 1997, 3, 143-154.	0.7	3
308	Foreword to the special volume: environmental change, land management and water quality in Scotland. Science of the Total Environment, 2001, 265, 3-6.	3.9	3
309	Gaining 'Ecological Legitimacy': The development of sustainability consciousness in the Flow Country, northern Scotland. Local Environment, 2002, 7, 81-95.	1.1	2
310	Functional Multiâ€Scale Integration of Agricultural Nitrogenâ€Budgets Into Catchment Water Quality Modeling. Geophysical Research Letters, 2022, 49, .	1.5	2
311	Hydrology at Aberdeen â€“ thinking about water locally and globally. Scottish Geographical Journal, 2019, 135, 267-286.	0.4	1
312	Do catchment characteristics explain differences in coherence and trends in hydroclimatic behaviour in an upland region?. Hydrology Research, 2014, 45, 817-837.	1.1	0
313	Visualizing catchmentâ€scale spatioâ€temporal dynamics of storageâ€fluxâ€age interactions using a tracerâ€aided ecohydrological model. Hydrological Processes, 2022, 36, .	1.1	0
314	Using water age to explore hydrological processes in contrasting environments. Hydrological Processes, 2022, 36, .	1.1	0