Bethany Neilson

List of Publications by Year
in descending order

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64	1,153	394421	454955
papers	citations	19 h-index	30 g-index

67	67	67	1589
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Denitrification in the banks of fluctuating rivers: The effects of river stage amplitude, sediment hydraulic conductivity and dispersivity, and ambient groundwater flow. Water Resources Research, 2017, 53, 7951-7967.	4.2	95
2	Controls on dissolved organic matter (DOM) degradation in a headwater stream: the influence of photochemical and hydrological conditions in determining light-limitation or substrate-limitation of photo-degradation. Biogeosciences, 2015, 12, 6669-6685.	3.3	79
3	Using Bayesian networks to model watershed management decisions: an East Canyon Creek case study. Journal of Hydroinformatics, 2005, 7, 267-282.	2.4	68
4	Impacts of beaver dams on hydrologic and temperature regimes in a mountain stream. Hydrology and Earth System Sciences, 2015, 19, 3541-3556.	4.9	55
5	Solar radiative heating of fiberâ€optic cables used to monitor temperatures in water. Water Resources Research, 2010, 46, .	4.2	38
6	Approaches to estimate uncertainty in longitudinal channel water balances. Journal of Hydrology, 2010, 394, 357-369.	5.4	37
7	Groundwater Flow and Exchange Across the Land Surface Explain Carbon Export Patterns in Continuous Permafrost Watersheds. Geophysical Research Letters, 2018, 45, 7596-7605.	4.0	37
8	Persistent Urban Influence on Surface Water Quality via Impacted Groundwater. Environmental Science & Technology, 2017, 51, 9477-9487.	10.0	34
9	Spectral scaling of heat fluxes in streambed sediments. Geophysical Research Letters, 2012, 39, .	4.0	31
10	Analysis of the Effects of Dam Release Properties and Ambient Groundwater Flow on Surface Waterâ€Groundwater Exchange Over a 100â€kmâ€Long Reach. Water Resources Research, 2019, 55, 8526-8546.	4.2	30
11	Active Layer Groundwater Flow: The Interrelated Effects of Stratigraphy, Thaw, and Topography. Water Resources Research, 2019, 55, 6555-6576.	4.2	29
12	Thermal remote sensing with an autonomous unmanned aerial remote sensing platform for surface stream temperatures. , 2012, , .		27
13	Analysis of the temperature dynamics of a proglacial river using time-lapse thermal imaging and energy balance modeling. Journal of Hydrology, 2014, 519, 1963-1973.	5.4	27
14	Effects of fine sediment, hyporheic flow, and spawning site characteristics on survival and development of bull trout embryos. Canadian Journal of Fisheries and Aquatic Sciences, 2014, 71, 1059-1071.	1.4	26
15	Data collection methodology for dynamic temperature model testing and corroboration. Hydrological Processes, 2009, 23, 2902-2914.	2.6	25
16	Twoâ€zone transient storage modeling using temperature and solute data with multiobjective calibration: 2. Temperature and solute. Water Resources Research, 2010, 46, .	4.2	25
17	Quantifying thermal refugia connectivity by combining temperature modeling, distributed temperature sensing, and thermal infrared imaging. Hydrology and Earth System Sciences, 2019, 23, 2965-2982.	4.9	24
18	Variability of inâ€stream and riparian storage in a beaded arctic stream. Hydrological Processes, 2012, 26, 2938-2950.	2.6	22

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19	Twoâ€zone transient storage modeling using temperature and solute data with multiobjective calibration: 1. Temperature. Water Resources Research, 2010, 46, .	4.2	20
20	Water temperature controls in low arctic rivers. Water Resources Research, 2016, 52, 4358-4376.	4.2	20
21	Stream Centric Methods for Determining Groundwater Contributions in Karst Mountain Watersheds. Water Resources Research, 2018, 54, 6708-6724.	4.2	20
22	A modeling approach for assessing the effect of multiple alpine lakes in sequence on nutrient transport. Aquatic Sciences, 2013, 75, 199-212.	1.5	19
23	Deducing the spatial variability of exchange within a longitudinal channel water balance. Hydrological Processes, 2014, 28, 3088-3103.	2.6	19
24	Empirical Models for Predicting Water and Heat Flow Properties of Permafrost Soils. Geophysical Research Letters, 2020, 47, e2020GL087646.	4.0	18
25	Application of highâ€resolution, remotely sensed data for transient storage modeling parameter estimation. Water Resources Research, 2012, 48, .	4.2	16
26	Quantifying Reachâ€Average Effects of Hyporheic Exchange on Arctic River Temperatures in an Area of Continuous Permafrost. Water Resources Research, 2019, 55, 1951-1971.	4.2	15
27	Hybrid Physically Based and Deep Learning Modeling of a Snow Dominated, Mountainous, Karst Watershed. Water Resources Research, 2022, 58, .	4.2	15
28	Estimating Discharge in Lowâ€Order Rivers With Highâ€Resolution Aerial Imagery. Water Resources Research, 2018, 54, 863-878.	4.2	14
29	The effects of floods on the temperature of riparian groundwater. Hydrological Processes, 2018, 32, 1267-1281.	2.6	14
30	Beaver dam influences on streamflow hydraulic properties and thermal regimes. Science of the Total Environment, 2020, 718, 134853.	8.0	14
31	Parallel multi-objective calibration of a component-based river temperature model. Environmental Modelling and Software, 2019, 116, 57-71.	4.5	13
32	Water Temperature Controls for Regulated Canyonâ€Bound Rivers. Water Resources Research, 2020, 56, e2020WR027566.	4.2	13
33	Lake Outflow and Hillslope Lateral Inflows Dictate Thermal Regimes of Forested Streams Draining Small Lakes. Water Resources Research, 2021, 57, e2020WR028136.	4.2	13
34	Impacts of beaver dams on channel hydraulics and substrate characteristics in a mountain stream. Ecohydrology, 2017, 10, e1767.	2.4	12
35	Assessing seasonal flow dynamics at a lagoon saltwaterâ€“freshwater interface using a dual tracer approach. Journal of Hydrology: Regional Studies, 2018, 17, 24-35.	2.4	12
36	Source or sink? Quantifying beaver pond influence on non-point source pollutant transport in the Intermountain West. Journal of Environmental Management, 2021, 285, 112127.	7.8	12

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37	Water Storage Decisions and Consumptive Use May Constrain Ecosystem Management under Severe Sustained Drought. Journal of the American Water Resources Association, 2022, 58, 654-672.	2.4	12
38	Groundwater exchanges near a channelized versus unmodified stream mouth discharging to a subalpine lake. Water Resources Research, 2016, 52, 2157-2177.	4.2	11
39	Increasing parameter certainty and data utility through multi-objective calibration of a spatially distributed temperature and solute model. Hydrology and Earth System Sciences, 2011, 15, 1547-1561.	4.9	10
40	Modelling inâ€pool temperature variability in a beaded arctic stream. Hydrological Processes, 2012, 26, 3921-3933.	2.6	10
41	The influence of spatially variable stream hydraulics on reach scale transient storage modeling. Water Resources Research, 2014, 50, 9287-9299.	4.2	9
42	Spatial considerations of stream hydraulics in reach scale temperature modeling. Water Resources Research, 2015, 51, 5566-5581.	4.2	9
43	Riverbed Temperature and Heat Transport in a Hydropeaked River. Water Resources Research, 2021, 57, e2021WR029609.	4.2	9
44	A Bayesian Decision Network Engine for Internet-Based Stakeholder Decision-Making. , 2001, , 1.		8
45	Nutrient processes at the streamâ€lake interface for a channelized versus unmodified stream mouth. Water Resources Research, 2017, 53, 237-256.	4.2	8
46	Effects of vertical hydrodynamic mixing on photomineralization of dissolved organic carbon in arctic surface waters. Environmental Sciences: Processes and Impacts, 2019, 21, 748-760.	3.5	8
47	An analytical solution to main channel heat transport with surface heat flux. Advances in Water Resources, 2012, 47, 67-75.	3.8	7
48	Simple Optimization Method to Determine Best Management Practices to Reduce Phosphorus Loading in Echo Reservoir, Utah. Journal of Water Resources Planning and Management - ASCE, 2013, 139, 122-125.	2.6	7
49	Development of a Minimalistic Data Collection Strategy for QUAL2Kw. Journal of Water Resources Planning and Management - ASCE, 2015, 141, .	2.6	7
50	Collaborative Approach to Calibration of a Riverine Water Quality Model. Journal of Water Resources Planning and Management - ASCE, 2014, 140, 393-405.	2.6	6
51	Combined influences of irrigation diversions and associated subsurface return flows on river temperature in a semiâ€arid region. Hydrological Processes, 2021, 35, e14283.	2.6	6
52	A distributed analysis of lateral inflows in an Alaskan Arctic watershed underlain by continuous permafrost. Hydrological Processes, 2020, 34, 633-648.	2.6	5
53	Approximation of inverse Laplace transform solution to heat transport in a stream system. Water Resources Research, 2012, 48, .	4.2	4
54	Ungaged inflow and loss patterns in urban and agricultural subâ€reaches of the Logan River Observatory. Hydrological Processes, 2021, 35, e14097.	2.6	4

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55	Evaluation of the ERA5â€Land Reanalysis Data Set for Processâ€Based River Temperature Modeling Over Data Sparse and Topographically Complex Regions. Water Resources Research, 2022, 58, .	4.2	3
56	Isolating parameter sensitivity in reach scale transient storage modeling. Advances in Water Resources, 2016, 89, 24-31.	3.8	2
57	CFD Model of the Density-Driven Bidirectional Flows through the West Crack Breach in the Great Salt Lake Causeway. Water (Switzerland), 2021, 13, 2423.	2.7	2
58	Aerobic respiration in riparian exchange zones of regulated river corridors. Hydrological Processes, 2021, 35, .	2.6	2
59	Detailed streamflow data for understanding hydrologic responses in the Logan River Observatory. Hydrological Processes, 2021, 35, e14268.	2.6	1
60	Do headwater lakes moderate downstream temperature response to forest harvesting? Illustrating opportunities and obstacles associated with virtual experiments. Hydrological Processes, 2022, 36, .	2.6	1
61	GIS-based Watershed Data Viewer and Water Quality Data Analyst. Proceedings of the Water Environment Federation, 2002, 2002, 710-738.	0.0	0
62	Application of Bayesian Decision Networks To Total Maximum Daily Load Analysis. , 0, , .		0
63	Collaborative Calibration of a Water Quality Model of an Urbanized River. , 2010, , .		0
64	ROLES OF GROUNDWATER/SURFACE WATER EXCHANGES IN ARCTIC STREAM AND RIVER TEMPERATURE. , 2016, , .		0