Joshua C Koch

List of Publications by Citations

36 papers	651 citations	16 h-index	25 g-index
40 ext. papers	810 ext. citations	4.9 avg, IF	4.21 L-index

#	Paper	IF	Citations
36	Multidecadal increases in the Yukon River Basin of chemical fluxes as indicators of changing flowpaths, groundwater, and permafrost. *Geophysical Research Letters*, **2016**, 43, 12,120-12,130	4.9	68
35	Hydrologic controls on the transport and cycling of carbon and nitrogen in a boreal catchment underlain by continuous permafrost. *Journal of Geophysical Research G: Biogeosciences*, **2013**, 118, 698-712	3.7	57
34	Dissolved organic carbon and nitrogen release from boreal Holocene permafrost and seasonally frozen soils of Alaska. *Environmental Research Letters*, **2018**, 13, 065011	6.2	49
33	Rapid runoff via shallow throughflow and deeper preferential flow in a boreal catchment underlain by frozen silt (Alaska, USA). *Hydrogeology Journal*, **2013**, 21, 93-106	3.1	48
32	Runoff sources and flow paths in a partially burned, upland boreal catchment underlain by permafrost. *Water Resources Research*, **2014**, 50, 8141-8158	5.4	42
31	Effect of permafrost thaw on CO 2 and CH 4 exchange in a western Alaska peatland chronosequence. *Environmental Research Letters*, **2014**, 9, 085004	6.2	39
30	Life in the Main Channel: Long-Term Hydrologic Control of Microbial Mat Abundance in McMurdo Dry Valley Streams, Antarctica. *Ecosystems*, **2015**, 18, 310-327	3.9	33
29	Morphology-Dependent Water Budgets and Nutrient Fluxes in Arctic Thaw Ponds. *Permafrost and Periglacial Processes*, **2014**, 25, 79-93	4.2	26
28	Simulating unsteady flow, anabranching, and hyporheic dynamics in a glacial meltwater stream using a coupled surface water routing and groundwater flow model. *Water Resources Research*, **2011**, 47,	5.4	25
27	Landscape Effects of Wildfire on Permafrost Distribution in Interior Alaska Derived from Remote Sensing. *Remote Sensing*, **2016**, 8, 654	5	24
26	Forecasting Wildlife Response to Rapid Warming in the Alaskan Arctic. *BioScience*, **2015**, 65, 718-728	5.7	23
25	Surface water connectivity drives richness and composition of Arctic lake fish assemblages. *Freshwater Biology*, **2016**, 61, 1090-1104	3.1	22
24	Soil Physical, Hydraulic, and Thermal Properties in Interior Alaska, USA: Implications for Hydrologic Response to Thawing Permafrost Conditions. *Water Resources Research*, **2019**, 55, 4427-4447	5.4	20
23	Pronounced chemical response of Subarctic lakes to climate-driven losses in surface area. *Global Change Biology*, **2015**, 21, 1140-52	11.4	18
22	Ice Wedge Degradation and Stabilization Impact Water Budgets and Nutrient Cycling in Arctic Trough Ponds. *Journal of Geophysical Research G: Biogeosciences*, **2018**, 123, 2604-2616	3.7	18
21	Permafrost Promotes Shallow Groundwater Flow and Warmer Headwater Streams. *Water Resources Research*, **2021**, 57, e2020WR027463	5.4	16
20	Review: Groundwater in Alaska (USA). *Hydrogeology Journal*, **2013**, 21, 25-39	3.1	14

19	Effect of unsteady flow on nitrate loss in an oligotrophic, glacial meltwater stream. *Journal of Geophysical Research*, **2010**, 115,		14
18	Permafrost Hydrology Drives the Assimilation of Old Carbon by Stream Food Webs in the Arctic. *Ecosystems*, **2020**, 23, 435-453	3.9	13
17	Tracer-based evidence of heterogeneity in subsurface flow and storage within a boreal hillslope. *Hydrological Processes*, **2017**, 31, 2453-2463	3.3	11
16	Lateral and subsurface flows impact arctic coastal plain lake water budgets. *Hydrological Processes*, **2016**, 30, 3918-3931	3.3	11
15	Patterns and controls of mercury accumulation in sediments from three thermokarst lakes on the Arctic Coastal Plain of Alaska. *Aquatic Sciences*, **2018**, 80, 1	2.5	11
14	Fish growth rates and lake sulphate explain variation in mercury levels in ninespine stickleback (Pungitius pungitius) on the Arctic Coastal Plain of Alaska. *Science of the Total Environment*, **2020**, 743, 140564	10.2	10
13	Potential for real-time understanding of coupled hydrologic and biogeochemical processes in stream ecosystems: Future integration of telemetered data with process models for glacial meltwater streams. *Water Resources Research*, **2015**, 51, 6725-6738	5.4	6
12	Nutrient Dynamics in Partially Drained Arctic Thaw Lakes. *Journal of Geophysical Research G: Biogeosciences*, **2018**, 123, 440-452	3.7	5
11	Carbon Dioxide and Methane Flux in a Dynamic Arctic Tundra Landscape: Decadal-Scale Impacts of Ice Wedge Degradation and Stabilization. *Geophysical Research Letters*, **2020**, 47,	4.9	5
10	Thermokarst and thaw-related landscape dynamics -- an annotated bibliography with an emphasis on potential effects on habitat and wildlife. *US Geological Survey Open-File Report*,		5
9	Thermal and hydrological observations near Twelvemile Lake in discontinuous permafrost, Yukon Flats, interior Alaska, September 2010-August 2011. *US Geological Survey Open-File Report*,		4
8	Field-based method for assessing duration of infectivity for influenza A viruses in the environment. *Journal of Virological Methods*, **2020**, 277, 113818	2.6	4
7	Multi-year, spatially extensive, watershed-scale synoptic stream chemistry and water quality conditions for six permafrost-underlain Arctic watersheds. *Earth System Science Data*, **2022**, 14, 95-116	10.5	3
6	Comparative nest survival of three sympatric loon species breeding in the Arctic. *Journal of Avian Biology*, **2018**, 49, e01671	1.9	1
5	Seasonality of Solute Flux and Water Source Chemistry in a Coastal Glacierized Watershed Undergoing Rapid Change: Wolverine Glacier Watershed, Alaska. *Water Resources Research*, **2021**, 57, e2020WR028725	5.4	1
4	Nitrogen biogeochemistry in a boreal headwater stream network in interior Alaska. *Science of the Total Environment*, **2021**, 764, 142906	10.2	1
3	Sensitivity of headwater streamflow to thawing permafrost and vegetation change in a warming Arctic. *Environmental Research Letters*, **2022**, 17, 044074	6.2	1
2	Storm-Scale and Seasonal Dynamics of Carbon Export From a Nested Subarctic Watershed Underlain by Permafrost. *Journal of Geophysical Research G: Biogeosciences*, **2021**, 126, e2021JG006268	3.7	0

1	Arctic insect emergence timing and composition differs across thaw ponds of varying morphology. *Arctic, Antarctic, and Alpine Research*, **2021**, 53, 110-126	1.8	0