Mark S Johnson

List of Publications by Year
in descending order

67 papers	2,649 citations	186265 28 h-index	197818 49 g-index
68 all docs	68 docs citations	68 times ranked	4345 citing authors

#	Article	IF	Citations
1	ECOSTRESS: NASA's Next Generation Mission to Measure Evapotranspiration From the International Space Station. Water Resources Research, 2020, 56, e2019WR026058.	4.2	220
2	Double-funneling of trees: Stemflow and root-induced preferential flow. Ecoscience, 2006, 13, 324-333.	1.4	215
3	CO₂ efflux from Amazonian headwater streams represents a significant fate for deep soil respiration. Geophysical Research Letters, 2008, 35, .	4.0	198
4	Application of two hydrologic models with different runoff mechanisms to a hillslope dominated watershed in the northeastern US: a comparison of HSPF and SMR. Journal of Hydrology, 2003, 284, 57-76.	5.4	111
5	Direct and continuous measurement of dissolved carbon dioxide in freshwater aquatic systemsâ€"method and applications. Ecohydrology, 2010, 3, 68-78.	2.4	101
6	DOC and DIC in Flowpaths of Amazonian Headwater Catchments with Hydrologically Contrasting Soils. Biogeochemistry, 2006, 81, 45-57.	3.5	99
7	Gapâ€filling approaches for eddy covariance methane fluxes: A comparison of three machine learning algorithms and a traditional method with principal component analysis. Global Change Biology, 2020, 26, 1499-1518.	9.5	96
8	Improving agricultural water use efficiency with biochar â€" A synthesis of biochar effects on water storage and fluxes across scales. Science of the Total Environment, 2019, 657, 853-862.	8.0	94
9	Organic carbon fluxes within and streamwater exports from headwater catchments in the southern Amazon. Hydrological Processes, 2006, 20, 2599-2614.	2.6	89
10	Biochar decreases dissolved organic carbon but not nitrate leaching in relation to vinasse application in a Brazilian sugarcane soil. Journal of Environmental Management, 2015, 149, 9-16.	7.8	82
11	Application of biochar and nitrogen influences fluxes of CO2, CH4 and N2O in a forest soil. Journal of Environmental Management, 2017, 192, 203-214.	7.8	66
12	Water use by terrestrial ecosystems: temporal variability in rainforest and agricultural contributions to evapotranspiration in Mato Grosso, Brazil. Environmental Research Letters, 2012, 7, 024024.	5.2	59
13	Relationships between soil hydrology and forest structure and composition in the southern Brazilian Amazon. Journal of Vegetation Science, 2007, 18, 183-194.	2.2	51
14	Fluorescence index as an indicator of dissolved organic carbon quality in hydrologic flowpaths of forested tropical watersheds. Biogeochemistry, 2011, 105, 149-157.	3.5	50
15	Radiative forcing of methane fluxes offsets net carbon dioxide uptake for a tropical flooded forest. Global Change Biology, 2019, 25, 1967-1981.	9.5	50
16	A review of green- and blue-water resources and their trade-offs for future agricultural production in the Amazon Basin: what could irrigated agriculture mean for Amazonia?. Hydrology and Earth System Sciences, 2016, 20, 2179-2194.	4.9	44
17	Environmental footprints show China and Europeâ€™s evolving resource appropriation for soybean production in Mato Grosso, Brazil. Environmental Research Letters, 2014, 9, 074001.	5.2	42
18	Hyperspectral and Thermal Sensing of Stomatal Conductance, Transpiration, and Photosynthesis for Soybean and Maize under Drought. Remote Sensing, 2020, 12, 3182.	4.0	42

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19	Annual greenhouse gas budget for a bog ecosystem undergoing restoration by rewetting. Biogeosciences, 2017, 14, 2799-2814.	3.3	40
20	Groundwater recharge indicator as tool for decision makers to increase socio-hydrological resilience to seasonal drought. Journal of Hydrology, 2018, 563, 1119-1134.	5.4	40
21	Storm pulses of dissolved CO₂ in a forested headwater Amazonian stream explored using hydrograph separation. Water Resources Research, 2007, 43, .	4.2	39
22	Litterfall production and fluvial export in headwater catchments of the southern Amazon. Journal of Tropical Ecology, 2007, 23, 329-335.	1.1	38
23	Land occupation and transformation impacts of soybean production in Southern Amazonia, Brazil. Journal of Cleaner Production, 2017, 149, 680-689.	9.3	38
24	Biochars from local agricultural waste residues contribute to soil quality and plant growth in a Cerrado region (Brazil) Arenosol. GCB Bioenergy, 2018, 10, 272-286.	5.6	36
25	Public Participation and Perceptions of Watershed Modeling. Society and Natural Resources, 2008, 22, 79-87.	1.9	35
26	Runoff sources and land cover change in the Amazon: an end-member mixing analysis from small watersheds. Biogeochemistry, 2011, 105, 7-18.	3.5	33
27	Spatial patterns of DOC concentration and DOM optical properties in a Brazilian tropical riverâ€wetland system. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 1883-1902.	3.0	33
28	Spatial and temporal variability of soil water repellency of Amazonian pastures. Soil Research, 2005, 43, 319.	1.1	32
29	Water quality and greenhouse gas fluxes for stormwater detained in a constructed wetland. Journal of Environmental Management, 2019, 231, 1232-1240.	7.8	32
30	Impact of Different Agricultural Waste Biochars on Maize Biomass and Soil Water Content in a Brazilian Cerrado Arenosol. Agronomy, 2017, 7, 49.	3.0	31
31	Soil CO2 Dynamics in a Tree Island Soil of the Pantanal: The Role of Soil Water Potential. PLoS ONE, 2013, 8, e64874.	2.5	30
32	Physiological responses to extreme hydrological events in the Pantanal wetland: heterogeneity of a plant community containing superâ€dominant species. Journal of Vegetation Science, 2016, 27, 568-577.	2.2	30
33	Biochar from Sugarcane Filtercake Reduces Soil CO2 Emissions Relative to Raw Residue and Improves Water Retention and Nutrient Availability in a Highly-Weathered Tropical Soil. PLoS ONE, 2014, 9, e98523.	2.5	29
34	Evaluating Water Use for Agricultural Intensification in Southern Amazonia Using the Water Footprint Sustainability Assessment. Water (Switzerland), 2018, 10, 349.	2.7	27
35	Developing a Hydrologic Monitoring Network in Dataâ€Scarce Regions Using Openâ€Source Arduino Dataloggers. Agricultural and Environmental Letters, 2016, 1, 160011.	1.2	25
36	The role of rivers in the regional carbon balance. Geophysical Monograph Series, 2009, , 489-504.	0.1	24

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37	Biochar feedstock and pyrolysis temperature effects on leachate: DOC characteristics and nitrate losses from a Brazilian Cerrado Arenosol mixed with agricultural waste biochars. Journal of Environmental Management, 2018, 211, 256-268.	7.8	24
38	Submersible UV-Vis Spectroscopy for Quantifying Streamwater Organic Carbon Dynamics: Implementation and Challenges before and after Forest Harvest in a Headwater Stream. Sensors, 2012, 12, 3798-3813.	3.8	22
39	Land Use in LCA: Including Regionally Altered Precipitation to Quantify Ecosystem Damage. Environmental Science & Technology, 2016, 50, 11769-11778.	10.0	22
40	Rain-fed and irrigated cropland-atmosphere water fluxes and their implications for agricultural production in Southern Amazonia. Agricultural and Forest Meteorology, 2018, 256-257, 407-419.	4.8	22
41	Gas Transfer Velocities Evaluated Using Carbon Dioxide as a Tracer Show High Streamflow to Be a Major Driver of Total CO₂ Evasion Flux for a Headwater Stream. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2183-2197.	3.0	22
42	Net Ecosystem Carbon Balance of a Peat Bog Undergoing Restoration: Integrating CO₂ and CH₄ Fluxes From Eddy Covariance and Aquatic Evasion With DOC Drainage Fluxes. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 884-901.	3.0	21
43	Carbon biogeochemistry of a flooded Pantanal forest over three annual flood cycles. Biogeochemistry, 2018, 139, 1-18.	3.5	19
44	Biochar influences on soil CO2 and CH4 fluxes in response to wetting and drying cycles for a forest soil. Scientific Reports, 2017, 7, 6780.	3.3	18
45	Soil CO₂ concentrations and efflux dynamics of a tree island in the Pantanal wetland. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 2154-2169.	3.0	14
46	A contribution to harmonize water footprint assessments. Global Environmental Change, 2018, 53, 252-264.	7.8	12
47	Determining the Stability of Sugarcane Filtercake Biochar in Soils with Contrasting Levels of Organic Matter. Agriculture (Switzerland), 2018, 8, 71.	3.1	11
48	Streams with Riparian Forest Buffers versus Impoundments Differ in Discharge and DOM Characteristics for Pasture Catchments in Southern Amazonia. Water (Switzerland), 2019, 11, 390.	2.7	11
49	Changing Water Resources Under El NiÃ±o, Climate Change, and Growing Water Demands in Seasonally Dry Tropical Watersheds. Water Resources Research, 2021, 57, e2020WR028535.	4.2	11
50	Variabilidade espacial de atributos fÃsicos de solo usada na identificaÃ§Ã£o de classes pedolÃ³gicas de microbacias na AmazÃ´nia meridional. Revista Brasileira De Ciencia Do Solo, 2007, 31, 91-100.	1.3	11
51	Landâ€"Water interactions in the amazon. Biogeochemistry, 2011, 105, 1-5.	3.5	10
52	Ecohydrological responses to rewetting of a highly impacted raised bog ecosystem. Ecohydrology, 2018, 11, e1922.	2.4	10
53	Drone-Based Hyperspectral and Thermal Imagery for Quantifying Upland Rice Productivity and Water Use Efficiency after Biochar Application. Remote Sensing, 2021, 13, 1866.	4.0	10
54	DistribuiÃ§Ã£o espacial de carbono em solo sob floresta primÃ¡ria na AmazÃ´nia meridional. Revista Arvore, 2007, 31, 83-92.	0.5	10

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55	Dischargeâ€"calcium concentration relationships in streams of the Amazon and Cerrado of Brazil: soil or land use controlled. Biogeochemistry, 2011, 105, 19-35.	3.5	9
56	Cattle production in Southern Amazonia: implications for land and water management. Environmental Research Letters, 2019, 14, 114025.	5.2	9
57	High-frequency analysis of dissolved organic carbon storm responses in headwater streams of contrasting forest harvest history. Journal of Hydrology, 2020, 590, 125371.	5.4	9
58	Indicativos de descontinuidade litolÃ³gica de regolitos derivados de granitos em uma microbacia sob floresta AmazÃ´nica, em Juruena - MT. Revista Brasileira De Ciencia Do Solo, 2012, 36, 317-324.	1.3	7
59	DistribuiÃ§Ã£o espacial da granulometria, cor e carbono orgÃ¢nico do solo ao longo de um transecto em microbacias na AmazÃ´nia meridional. Acta Amazonica, 2008, 38, 715-722.	0.7	6
60	Complementarity in mid-point impacts for water use in life cycle assessment applied to cropland and cattle production in Southern Amazonia. Journal of Cleaner Production, 2019, 219, 497-507.	9.3	6
61	Ecohydrology and Biogeochemistry of the Rhizosphere in Forested Ecosystems. Ecological Studies, 2011, , 483-498.	1.2	6
62	Relative humidity gradients as a key constraint on terrestrial water and energy fluxes. Hydrology and Earth System Sciences, 2021, 25, 5175-5191.	4.9	4
63	Surface waters in Amazonia: Key findings and perspectives. Geophysical Monograph Series, 2009, , 485-488.	0.1	3
64	Simultaneous Measurements of Soil CO 2 and CH 4 Fluxes Using Laser Absorption Spectroscopy. Agricultural and Environmental Letters, 2016, 1, 150014.	1.2	3
65	On the Potential of Biochar Soil Amendments as a Sustainable Water Management Strategy. Sustainability, 2022, 14, 7026.	3.2	3
66	Carbon exchange in rainfed and irrigated cropland in the Brazilian Cerrado. Agricultural and Forest Meteorology, 2022, 316, 108881.	4.8	2
67	Correction to â€œEcohydrological responses to rewetting of a highly impacted raised bog ecosystemâ€. Ecohydrology, 2019, 12, e2034.	2.4	0