

John T Van Stan

List of Publications by Year in descending order

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Version: 2024-02-01

88
papers

2,148
citations

218677

26
h-index

276875

41
g-index

109
all docs

109
docs citations

109
times ranked

1430
citing authors

#	ARTICLE	IF	CITATIONS
1	A review and evaluation of forest canopy epiphyte roles in the partitioning and chemical alteration of precipitation. <i>Science of the Total Environment</i> , 2015, 536, 813-824.	8.0	118
2	Temporal variability of stemflow volume in a beech-yellow poplar forest in relation to tree species and size. <i>Journal of Hydrology</i> , 2010, 380, 112-120.	5.4	104
3	Significant contribution of non-vascular vegetation to global rainfall interception. <i>Nature Geoscience</i> , 2018, 11, 563-567.	12.9	77
4	Temporal variation in end-member chemistry and its influence on runoff mixing patterns in a forested, Piedmont catchment. <i>Water Resources Research</i> , 2013, 49, 1828-1844.	4.2	74
5	Effects of wind-driven rainfall on stemflow generation between codominant tree species with differing crown characteristics. <i>Agricultural and Forest Meteorology</i> , 2011, 151, 1277-1286.	4.8	71
6	Mini-Review: Stemflow as a Resource Limitation to Near-Stem Soils. <i>Frontiers in Plant Science</i> , 2018, 9, 248.	3.6	71
7	The importance of considering rainfall partitioning in afforestation initiatives in semiarid climates: A comparison of common planted tree species in Tehran, Iran. <i>Science of the Total Environment</i> , 2016, 568, 845-855.	8.0	63
8	Efficiency of the reformulated Gash's interception model in semiarid afforestations. <i>Agricultural and Forest Meteorology</i> , 2015, 201, 76-85.	4.8	59
9	Tree-DOM: Dissolved organic matter in throughfall and stemflow. <i>Limnology and Oceanography Letters</i> , 2018, 3, 199-214.	3.9	56
10	Evolution of forest precipitation water storage measurement methods. <i>Hydrological Processes</i> , 2015, 29, 2504-2520.	2.6	55
11	Impact of interacting bark structure and rainfall conditions on stemflow variability in a temperate beech-oak forest, central Germany. <i>Hydrological Sciences Journal</i> , 2016, 61, 2071-2083.	2.6	54
12	Atmospheric deposition and corresponding variability of stemflow chemistry across temporal scales in a mid-Atlantic broadleaved deciduous forest. <i>Atmospheric Environment</i> , 2011, 45, 3046-3054.	4.1	51
13	The effects of phenoseason and storm characteristics on throughfall solute washoff and leaching dynamics from a temperate deciduous forest canopy. <i>Science of the Total Environment</i> , 2012, 430, 48-58.	8.0	50
14	Molecular and Optical Properties of Tree-Derived Dissolved Organic Matter in Throughfall and Stemflow from Live Oaks and Eastern Red Cedar. <i>Frontiers in Earth Science</i> , 2017, 5, .	1.8	48
15	Canopy Structure in Relation to Hydrological and Biogeochemical Fluxes. <i>Ecological Studies</i> , 2011, , 371-388.	1.2	45
16	Meteorological influences on stemflow generation across diameter size classes of two morphologically distinct deciduous species. <i>International Journal of Biometeorology</i> , 2014, 58, 2059-2069.	3.0	45
17	A Global Synthesis of Throughfall and Stemflow Hydrometeorology. , 2020, , 49-70.		39
18	Estimation of Throughfall and Stemflow Bacterial Flux in a Subtropical Oak-Cedar Forest. <i>Geophysical Research Letters</i> , 2018, 45, 1410-1418.	4.0	38

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19	Canopy hydrometeorological dynamics across a chronosequence of a globally invasive species, <i>Ailanthus altissima</i> (Mill., tree of heaven). <i>Agricultural and Forest Meteorology</i> , 2017, 240-241, 10-17.	4.8	36
20	Development and testing of a snow interceptometer to quantify canopy water storage and interception processes in the rain/snow transition zone of the North Cascades, Washington, USA. <i>Water Resources Research</i> , 2013, 49, 3243-3256.	4.2	35
21	Forest canopy structural controls over throughfall affect soil microbial community structure in an epiphyte-laden maritime oak stand. <i>Ecohydrology</i> , 2015, 8, 1459-1470.	2.4	35
22	Stemflow and dissolved organic carbon cycling: temporal variability in concentration, flux, and UV-Vis spectral metrics in a temperate broadleaved deciduous forest in the eastern United States. <i>Canadian Journal of Forest Research</i> , 2012, 42, 207-216.	1.7	34
23	Importance of transitional leaf states in canopy rainfall partitioning dynamics. <i>European Journal of Forest Research</i> , 2018, 137, 121-130.	2.5	34
24	Temporal Dynamics in the Concentration, Flux, and Optical Properties of Tree-Derived Dissolved Organic Matter in an Epiphyte-Laden Oak-Cedar Forest. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 2982-2997.	3.0	32
25	Effects of phenology and meteorological disturbance on litter rainfall interception for a <i>Pinus elliottii</i> stand in the Southeastern United States. <i>Hydrological Processes</i> , 2017, 31, 3719-3728.	2.6	31
26	Storage and Routing of Precipitation Through Canopies. , 2020, , 17-34.		31
27	Seasonal dynamics of the soil microbial community structure within the proximal area of tree boles: Possible influence of stemflow. <i>European Journal of Soil Biology</i> , 2016, 73, 108-118.	3.2	29
28	<i>Tillandsia usneoides</i> (L.) L. (Spanish moss) water storage and leachate characteristics from two maritime oak forest settings. <i>Ecohydrology</i> , 2015, 8, 988-1004.	2.4	27
29	Surface roughness affects the running speed of tropical canopy ants. <i>Biotropica</i> , 2017, 49, 92-100.	1.6	27
30	Use of multiple correspondence analysis (MCA) to identify interactive meteorological conditions affecting relative throughfall. <i>Journal of Hydrology</i> , 2016, 533, 452-460.	5.4	25
31	What We Know About Stemflow's Infiltration Area. <i>Frontiers in Forests and Global Change</i> , 2020, 3, .	2.3	25
32	Forest Canopy Interception Loss Across Temporal Scales: Implications for Urban Greening Initiatives. <i>Professional Geographer</i> , 2015, 67, 41-51.	1.8	24
33	Effects of stand composition and soil properties on water repellency and hydraulic conductivity in Mediterranean forests. <i>Ecohydrology</i> , 2021, 14, e2276.	2.4	24
34	Management of pomegranate (<i>Punica granatum</i>) orchards alters the supply and pathway of rain water reaching soils in an arid agricultural landscape. <i>Agriculture, Ecosystems and Environment</i> , 2018, 259, 77-85.	5.3	23
35	Alteration of soil chitinolytic bacterial and ammonia oxidizing archaeal community diversity by rainwater redistribution in an epiphyte-laden <i>Quercus virginiana</i> canopy. <i>Soil Biology and Biochemistry</i> , 2016, 100, 33-41.	8.8	22
36	Communicating Science through Comics: A Method. <i>Publications</i> , 2018, 6, 38.	3.8	22

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37	Rainfall interception and redistribution by a common North American understory and pasture forb, <i>Eupatorium capillifolium</i> (Lam. dogfennel). Hydrology and Earth System Sciences, 2020, 24, 4587-4599.	4.9	22
38	Partitioning of Rainfall and Sprinkler-Irrigation by Crop Canopies: A Global Review and Evaluation of Available Research. Hydrology, 2020, 7, 76.	3.0	21
39	An Automated Instrument for the Measurement of Bark Microrelief. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 491-493.	4.7	20
40	Rainfall interception and redistribution by maize farmland in central Iran. Journal of Hydrology: Regional Studies, 2020, 27, 100656.	2.4	20
41	Throughfall and stemflow are major hydrologic highways for particulate traffic through tree canopies. Frontiers in Ecology and the Environment, 2021, 19, 404-410.	4.0	20
42	Things Seen and Unseen in Throughfall and Stemflow. , 2020, , 71-88.		20
43	Arboreal Epiphytes in the Soil-Atmosphere Interface: How Often Are the Biggest "Buckets" in the Canopy Empty?. Geosciences (Switzerland), 2019, 9, 342.	2.2	19
44	Interstorm Variability in the Biolability of Tree-Derived Dissolved Organic Matter (Tree-DOM) in Throughfall and Stemflow. Forests, 2018, 9, 236.	2.1	18
45	Dissolved black carbon in throughfall and stemflow in a fire-managed longleaf pine woodland. Biogeochemistry, 2019, 146, 191-207.	3.5	17
46	The absorption and evaporation of water vapor by epiphytes in an old-growth Douglas-fir forest during the seasonal summer dry season: Implications for the canopy energy budget. Ecohydrology, 2017, 10, e1801.	2.4	15
47	Spatial Variability and Temporal Stability of Local Net Precipitation Patterns. , 2020, , 89-104.		15
48	Bacterial Community Composition of Throughfall and Stemflow. Frontiers in Forests and Global Change, 2018, 1, .	2.3	14
49	Bark-Water Interactions Across Ecosystem States and Fluxes. Frontiers in Forests and Global Change, 2021, 4, .	2.3	14
50	Edge-to-Stem Variability in Wet-Canopy Evaporation From an Urban Tree Row. Boundary-Layer Meteorology, 2017, 165, 295-310.	2.3	13
51	Early European Observations of Precipitation Partitioning by Vegetation: A Synthesis and Evaluation of 19th Century Findings. Geosciences (Switzerland), 2019, 9, 423.	2.2	13
52	Hypothesis and Theory: Fungal Spores in Stemflow and Potential Bark Sources. Frontiers in Forests and Global Change, 2021, 4, .	2.3	13
53	Key Questions on the Evaporation and Transport of Intercepted Precipitation. , 2020, , 269-280.		13
54	Impacts of urban landscapes on students' academic performance. Landscape and Urban Planning, 2020, 201, 103840.	7.5	11

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55	Throughfall nutrients in a degraded indigenous <i>Fagus orientalis</i> forest and a <i>Picea abies</i> plantation in the of North of Iran. <i>Forest Systems</i> , 2015, 24, e035.	0.3	11
56	Valuing Urban Tree Impacts on Precipitation Partitioning. , 2020, , 253-268.		11
57	Global rainfall partitioning by dryland vegetation: Developing general empirical models. <i>Journal of Hydrology</i> , 2022, 607, 127540.	5.4	11
58	Modeling Rainfall Interception Loss for an Epiphyte-Laden <i>Quercus virginiana</i> Forest Using Reformulated Static- and Variable-Storage Gash Analytical Models. <i>Journal of Hydrometeorology</i> , 2016, 17, 1985-1997.	1.9	10
59	Stemflow variability across tree stem and canopy traits in the Brazilian Cerrado. <i>Agricultural and Forest Meteorology</i> , 2021, 308-309, 108551.	4.8	10
60	Changes in soil functionality eight years after fire and post-fire hillslope stabilisation in Mediterranean forest ecosystems. <i>Geoderma</i> , 2022, 409, 115603.	5.1	10
61	Evaluation of an instrumental method to reduce error in canopy water storage estimates via mechanical displacement. <i>Water Resources Research</i> , 2013, 49, 54-63.	4.2	9
62	Calcium and aluminum cycling in a temperate broadleaved deciduous forest of the eastern USA: relative impacts of tree species, canopy state, and flux type. <i>Environmental Monitoring and Assessment</i> , 2015, 187, 458.	2.7	9
63	Precipitation Partitioningâ€™Hydrologic Highways Between Microbial Communities of the Plant Microbiome?. , 2020, , 229-252.		9
64	Rainfall partitioning and associated chemical alteration in three subtropical urban tree species. <i>Journal of Hydrology</i> , 2021, 603, 127109.	5.4	9
65	Using wavelet analysis to examine bark microrelief. <i>Trees - Structure and Function</i> , 2014, 28, 413-425.	1.9	8
66	Throughfall alterations by degree of <i>Tillandsia usneoides</i> cover in a southeastern US <i>Quercus virginiana</i> forest. <i>Canadian Journal of Forest Research</i> , 2015, 45, 1688-1698.	1.7	8
67	Observed compression of in situ tree stems during freezing. <i>Agricultural and Forest Meteorology</i> , 2017, 243, 19-24.	4.8	8
68	Post-fire restoration with contour-felled log debris increases early recruitment of Spanish black pine (<i>Pinus nigra</i> Arn. ssp. <i>salzmannii</i>) in Mediterranean forests. <i>Restoration Ecology</i> , 2021, 29, e13338.	2.9	8
69	Throughfall and Stemflow: The Crowning Headwaters of the Aquatic Carbon Cycle. , 2020, , 121-132.		8
70	Forest Canopy Precipitation Partitioning. <i>Advances in Botanical Research</i> , 2015, 75, 215-240.	1.1	7
71	Urban Forestry. <i>Advances in Chemical Pollution, Environmental Management and Protection</i> , 2018, 3, 35-61.	0.5	7
72	Living particulate fluxes in throughfall and stemflow during a pollen event. <i>Biogeochemistry</i> , 2021, 153, 323-330.	3.5	7

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73	Effect of Forest Fires on Hydrology and Biogeochemistry of Watersheds. <i>Ecological Studies</i> , 2011, , 599-621.	1.2	7
74	Instrumental method for reducing error in compression-derived measurements of rainfall interception for individual trees. <i>Hydrological Sciences Journal</i> , 2011, 56, 1061-1066.	2.6	6
75	Under the canopy: disentangling the role of stemflow in shaping spatial patterns of soil microbial community structure underneath trees. <i>Environmental Microbiology</i> , 2022, 24, 4001-4012.	3.8	6
76	Challenges and Capabilities in Estimating Snow Mass Intercepted in Conifer Canopies With Tree Sway Monitoring. <i>Water Resources Research</i> , 2022, 58, .	4.2	6
77	Grand theft hydro? Stemflow interception and redirection by neighbouring <i>Tradescantia ohiensis</i> Raf. (spiderwort) plants. <i>Ecohydrology</i> , 2020, 13, e2239.	2.4	4
78	Response: Commentary: What We Know About Stemflow's Infiltration Area. <i>Frontiers in Forests and Global Change</i> , 2021, 4, .	2.3	4
79	Vertical Variability in Bark Hydrology for Two Coniferous Tree Species. <i>Frontiers in Forests and Global Change</i> , 2021, 4, .	2.3	4
80	Wrack and ruin: Legacy hydrologic effects of hurricane-deposited wrack on hardwood-hammock coastal islands. <i>Environmental Research Communications</i> , 2020, 2, 061001.	2.3	3
81	How Trees Make Tea. <i>Frontiers for Young Minds</i> , 0, 10, .	0.8	1
82	Rain harvesting by plants. <i>Current Biology</i> , 2022, 32, R609-R611.	3.9	1
83	Koalas Give Tree Bark a Licking. <i>Frontiers for Young Minds</i> , 0, 9, .	0.8	0
84	Simultaneous estimation of <i>Pinus nigra</i> Arn. ssp. <i>salzmannii</i> natural regeneration emergence and survival through lifetime analysis. <i>Forest Ecology and Management</i> , 2021, 499, 119613.	3.2	0
85	TREE-DOM: DOM FROM THE CROWNING HEADWATERS OF THE AQUATIC CARBON CYCLE. , 2018, , .		0
86	HOW WILL CLIMATE CHANGE IMPACT THE STORM MAGNITUDE AND THROUFALL IN SEVERAL FOREST AREAS IN IRAN?. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> , 0, XLII-4/W18, 117-125.	0.2	0
87	Editorial: Bark-Water Interactions. <i>Frontiers in Forests and Global Change</i> , 2021, 4, .	2.3	0
88	Carbonate dissolution cones require more than stemflow funneling from plants. <i>Geomorphology</i> , 2022, 407, 108215.	2.6	0