Sujith Ravi

List of Publications by Year
in descending order

63 papers	4,279 citations	126907 33 h-index	128289 60 g-index
66 all docs	66 docs citations	66 times ranked	4663 citing authors

#	Article	IF	Citations
1	Global desertification: Drivers and feedbacks. Advances in Water Resources, 2013, 51, 326-344.	3.8	656
2	Environmental impacts of utility-scale solar energy. Renewable and Sustainable Energy Reviews, 2014, 29, 766-779.	16.4	429
3	Land degradation in drylands: Interactions among hydrologicâ€“aeolian erosion and vegetation dynamics. Geomorphology, 2010, 116, 236-245.	2.6	306
4	The ecology of dust. Frontiers in Ecology and the Environment, 2010, 8, 423-430.	4.0	248
5	AEOLIAN PROCESSES AND THE BIOSPHERE. Reviews of Geophysics, 2011, 49, .	23.0	230
6	Distribution of microplastics in soil and freshwater environments: Global analysis and framework for transport modeling. Environmental Pollution, 2021, 274, 116552.	7.5	189
7	Colocation opportunities for large solar infrastructures and agriculture in drylands. Applied Energy, 2016, 165, 383-392.	10.1	125
8	On the effect of air humidity on soil susceptibility to wind erosion: The case of air-dry soils. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	120
9	On the effect of moisture bonding forces in air-dry soils on threshold friction velocity of wind erosion. Sedimentology, 2006, 53, 597-609.	3.1	119
10	Understanding the role of ecohydrological feedbacks in ecosystem state change in drylands. Ecohydrology, 2012, 5, 174-183.	2.4	110
11	Post-Fire Resource Redistribution in Desert Grasslands: A Possible Negative Feedback on Land Degradation. Ecosystems, 2009, 12, 434-444.	3.4	104
12	Hydrologic and aeolian controls on vegetation patterns in arid landscapes. Geophysical Research Letters, 2007, 34, .	4.0	90
13	Invasion of shrublands by exotic grasses: ecohydrological consequences in cold versus warm deserts. Ecohydrology, 2012, 5, 160-173.	2.4	72
14	A field-scale analysis of the dependence of wind erosion threshold velocity on air humidity. Geophysical Research Letters, 2005, 32, .	4.0	68
15	Quantifying plant-soil-nutrient dynamics in rangelands: Fusion of UAV hyperspectral-LiDAR, UAV multispectral-photogrammetry, and ground-based LiDAR-digital photography in a shrub-encroached desert grassland. Remote Sensing of Environment, 2021, 253, 112223.	11.0	62
16	Feedbacks between fires and wind erosion in heterogeneous arid lands. Journal of Geophysical Research, 2007, 112, .	3.3	61
17	Form and function of grass ring patterns in arid grasslands: the role of abiotic controls. Oecologia, 2008, 158, 545-555.	2.0	61
18	Dynamic effects of biochar concentration and particle size on hydraulic properties of sand. Land Degradation and Development, 2018, 29, 884-893.	3.9	59

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19	Dynamic interactions of ecohydrological and biogeochemical processes in waterâ€limited systems. Ecosphere, 2015, 6, 1-27.	2.2	58
20	Enhancement of wind erosion by fire-induced water repellency. Water Resources Research, 2006, 42, .	4.2	57
21	Dustâ€rainfall feedbacks in the West African Sahel. Water Resources Research, 2008, 44, .	4.2	57
22	Tradeoffs and Synergies between Biofuel Production and Large Solar Infrastructure in Deserts. Environmental Science & Technology, 2014, 48, 3021-3030.	10.0	50
23	Effects of Revegetation on Soil Physical and Chemical Properties in Solar Photovoltaic Infrastructure. Frontiers in Environmental Science, 2020, 8, .	3.3	50
24	Post-fire resource redistribution and fertility island dynamics in shrub encroached desert grasslands: a modeling approach. Landscape Ecology, 2009, 24, 325-335.	4.2	49
25	Biochar increases nitrate removal capacity of woodchip biofilters during high-intensity rainfall. Water Research, 2019, 165, 115008.	11.3	42
26	Changes in spatial variance during a grassland to shrubland state transition. Journal of Ecology, 2017, 105, 750-760.	4.0	41
27	Can biological invasions induce desertification?. New Phytologist, 2009, 181, 512-515.	7.3	40
28	Quantifying soil surface change in degraded drylands: Shrub encroachment and effects of fire and vegetation removal in a desert grassland. Journal of Geophysical Research, 2012, 117, .	3.3	39
29	Particulate matter emissions from biochar-amended soils as a potential tradeoff to the negative emission potential. Scientific Reports, 2016, 6, 35984.	3.3	39
30	Ecohydrological interactions within â€œfairy circlesâ€•in the Namib Desert: Revisiting the selfâ€organization hypothesis. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 405-414.	3.0	38
31	Convergent vegetation fog and dew water use in the Namib Desert. Ecohydrology, 2019, 12, e2130.	2.4	37
32	Quantifying Postfire Aeolian Sediment Transport Using Rare Earth Element Tracers. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 288-299.	3.0	36
33	Interactions Between Soil Erosion Processes and Fires: Implications for the Dynamics of Fertility Islands. Rangeland Ecology and Management, 2010, 63, 267-274.	2.3	35
34	The effect of fire-induced soil hydrophobicity on wind erosion in a semiarid grassland: Experimental observations and theoretical framework. Geomorphology, 2009, 105, 80-86.	2.6	30
35	Field evidence for differences in post-fire aeolian transport related to vegetation type in semi-arid grasslands. Aeolian Research, 2012, 7, 3-10.	2.7	29
36	Compaction conditions affect the capacity of biochar-amended sand filters to treat road runoff. Science of the Total Environment, 2020, 735, 139180.	8.0	29

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37	Microplastics retained in stormwater control measures: Where do they come from and where do they go?. Water Research, 2022, 210, 118008.	11.3	29
38	Tracer techniques in aeolian research: Approaches, applications, and challenges. Earth-Science Reviews, 2017, 170, 1-16.	9.1	28
39	Phenology-based, remote sensing of post-burn disturbance windows in rangelands. Ecological Indicators, 2013, 30, 35-44.	6.3	27
40	Potential of grass invasions in desert shrublands to create novel ecosystem states under variable climate. Ecohydrology, 2016, 9, 1496-1506.	2.4	27
41	Post-fire Redistribution of Soil Carbon and Nitrogen at a Grasslandâ€"Shrubland Ecotone. Ecosystems, 2019, 22, 174-188.	3.4	26
42	Aeolian contamination of fruits by enteric pathogens: an unexplored paradigm. Current Opinion in Food Science, 2018, 19, 138-144.	8.0	25
43	Ecohydrological implications of aeolian sediment trapping by sparse vegetation in drylands. Ecohydrology, 2018, 11, e1986.	2.4	25
44	Variation of near surface atmosphere microbial communities at an urban and a suburban site in Philadelphia, PA, USA. Science of the Total Environment, 2020, 724, 138353.	8.0	23
45	Biological invasions and climate change amplify each otherâ€™s effects on dryland degradation. Global Change Biology, 2022, 28, 285-295.	9.5	23
46	Size-dependent biochar breaking under compaction: Implications on clogging and pathogen removal in biofilters. Environmental Pollution, 2020, 266, 115195.	7.5	21
47	Interactions among hydrological-aeolian processes and vegetation determine grain-size distribution of sediments in a semi-arid coppice dune (nebkha) system. Journal of Arid Environments, 2018, 154, 24-33.	2.4	20
48	Inhalation risks of wind-blown dust from biosolid-applied agricultural lands: Are they enriched with microplastics and PFAS?. Current Opinion in Environmental Science and Health, 2022, 25, 100309.	4.1	17
49	Total vertical sediment flux and PM10 emissions from disturbed Chihuahuan Desert surfaces. Geoderma, 2017, 293, 19-25.	5.1	16
50	Land degradation in the Thar Desert. Frontiers in Ecology and the Environment, 2009, 7, 517-518.	4.0	12
51	Land Degradation and Environmental Change. , 2016, , 219-227.		12
52	Combined land use of solar infrastructure and agriculture for socioeconomic and environmental co-benefits in the tropics. Renewable and Sustainable Energy Reviews, 2021, 151, 111610.	16.4	11
53	A combined grazing and fire management may reverse woody shrub encroachment in desert grasslands. Landscape Ecology, 2019, 34, 2017-2031.	4.2	10
54	Fire changes the spatial distribution and sources of soil organic carbon in a grassland-shrubland transition zone. Plant and Soil, 2019, 435, 309-321.	3.7	10

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55	Woody plant encroachment of grassland and the reversibility of shrub dominance: Erosion, fire, and feedback processes. Ecosphere, 2022, 13, .	2.2	10
56	On the development of a magnetic susceptibilityâ€based tracer for aeolian sediment transport research. Earth Surface Processes and Landforms, 2019, 44, 672-678.	2.5	9
57	Generation, Resuspension, and Transport of Particulate Matter From Biocharâ€Amended Soils: A Potential Health Risk. GeoHealth, 2020, 4, e2020GH000311.	4.0	8
58	Vegetation Change in the Southwestern USA: Patterns and Processes. , 2014, , 289-313.		7
59	Mobility of polypropylene microplastics in stormwater biofilters under freeze-thaw cycles. Journal of Hazardous Materials Letters, 2022, 3, 100048.	3.6	7
60	Partner crop plants with solar facilities. Nature, 2015, 524, 161-161.	27.8	5
61	Fire changes the spatial pattern and dynamics of soil nitrogen (N) and Î´15N at a grassland-shrubland ecotone. Journal of Arid Environments, 2021, 186, 104422.	2.4	2
62	Ecohydrological Implications of Aeolian Processes in Drylands. , 2019, , 199-238.		2
63	Reframing the Competition for Land between Food and Energy Production in Indonesia. Social and Ecological Interactions in the Galapagos Islands, 2020, , 241-260.	0.4	1