Greg Okin

List of Publications by Year
in descending order

121 papers	7,948 citations	50276 46 h-index	53230 85 g-index
134 all docs	134 docs citations	134 times ranked	8826 citing authors

#	Article	IF	Citations
1	Global distribution of atmospheric phosphorus sources, concentrations and deposition rates, and anthropogenic impacts. Global Biogeochemical Cycles, 2008, 22, .	4.9	617
2	Impact of desert dust on the biogeochemistry of phosphorus in terrestrial ecosystems. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	362
3	A synthetic review of feedbacks and drivers of shrub encroachment in arid grasslands. Ecohydrology, 2012, 5, 520-530.	2.4	313
4	Quantitative effects of vegetation cover on wind erosion and soil nutrient loss in a desert grassland of southern New Mexico, USA. Biogeochemistry, 2007, 85, 317-332.	3.5	294
5	Practical limits on hyperspectral vegetation discrimination in arid and semiarid environments. Remote Sensing of Environment, 2001, 77, 212-225.	11.0	278
6	The ecology of dust. Frontiers in Ecology and the Environment, 2010, 8, 423-430.	4.0	248
7	Responses of wind erosion to climate-induced vegetation changes on the Colorado Plateau. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3854-3859.	7.1	242
8	Desertification, land use, and the transformation of global drylands. Frontiers in Ecology and the Environment, 2015, 13, 28-36.	4.0	234
9	AEOLIAN PROCESSES AND THE BIOSPHERE. Reviews of Geophysics, 2011, 49, .	23.0	230
10	A new model of wind erosion in the presence of vegetation. Journal of Geophysical Research, 2008, 113, .	3.3	218
11	On soil moistureâ€“vegetation feedbacks and their possible effects on the dynamics of dryland ecosystems. Journal of Geophysical Research, 2007, 112, .	3.3	202
12	Do Changes in Connectivity Explain Desertification?. BioScience, 2009, 59, 237-244.	4.9	200
13	Atmospheric fluxes of organic N and P to the global ocean. Global Biogeochemical Cycles, 2012, 26, .	4.9	179
14	Impacts of atmospheric nutrient deposition on marine productivity: Roles of nitrogen, phosphorus, and iron. Global Biogeochemical Cycles, 2011, 25, n/a-n/a.	4.9	177
15	Connectivity in dryland landscapes: shifting concepts of spatial interactions. Frontiers in Ecology and the Environment, 2015, 13, 20-27.	4.0	161
16	Degradation of sandy arid shrubland environments: observations, process modelling, and management implications. Journal of Arid Environments, 2001, 47, 123-144.	2.4	160
17	A reevaluation of the magnitude and impacts of anthropogenic atmospheric nitrogen inputs on the ocean. Global Biogeochemical Cycles, 2017, 31, 289-305.	4.9	146
18	Impacts of biomass burning emissions and land use change on Amazonian atmospheric phosphorus cycling and deposition. Global Biogeochemical Cycles, 2005, 19, n/a-n/a.	4.9	142

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19	Effects of wind erosion on the spatial heterogeneity of soil nutrients in two desert grassland communities. Biogeochemistry, 2008, 88, 73-88.	3.5	139
20	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
21	Understanding the role of ecohydrological feedbacks in ecosystem state change in drylands. Ecohydrology, 2012, 5, 174-183.	2.4	110
22	Post-Fire Resource Redistribution in Desert Grasslands: A Possible Negative Feedback on Land Degradation. Ecosystems, 2009, 12, 434-444.	3.4	104
23	Hydrologic and aeolian controls on vegetation patterns in arid landscapes. Geophysical Research Letters, 2007, 34, .	4.0	90
24	Albedo feedbacks to future climate via climate change impacts on dryland biocrusts. Scientific Reports, 2017, 7, 44188.	3.3	84
25	Environmental impacts of food consumption by dogs and cats. PLoS ONE, 2017, 12, e0181301.	2.5	82
26	The Grasslandâ€"Shrubland Regime Shift in the Southwestern United States: Misconceptions and Their Implications for Management. BioScience, 2018, 68, 678-690.	4.9	81
27	Relative spectral mixture analysis â€" A multitemporal index of total vegetation cover. Remote Sensing of Environment, 2007, 106, 467-479.	11.0	80
28	Combined Effects of Impervious Surface and Vegetation Cover on Air Temperature Variations in a Rapidly Expanding Desert City. GIScience and Remote Sensing, 2010, 47, 301-320.	5.9	79
29	Effect of grain size on remotely sensed spectral reflectance of sandy desert surfaces. Remote Sensing of Environment, 2004, 89, 272-280.	11.0	73
30	Mapping North African landforms using continental scale unmixing of MODIS imagery. Remote Sensing of Environment, 2005, 97, 470-483.	11.0	71
31	Characterization of shrub distribution using high spatial resolution remote sensing: Ecosystem implications for a former Chihuahuan Desert grassland. Remote Sensing of Environment, 2006, 101, 554-566.	11.0	68
32	Leveraging Google Earth Engine (GEE) and machine learning algorithms to incorporate in situ measurement from different times for rangelands monitoring. Remote Sensing of Environment, 2020, 236, 111521.	11.0	66
33	Effects of enhanced wind erosion on surface soil texture and characteristics of windblown sediments. Journal of Geophysical Research, 2009, 114, .	3.3	65
34	Comparison of methods for estimation of absolute vegetation and soil fractional cover using MODIS normalized BRDF-adjusted reflectance data. Remote Sensing of Environment, 2013, 130, 266-279.	11.0	63
35	Spatial heterogeneity and sources of soil carbon in southern African savannas. Geoderma, 2009, 149, 402-408.	5.1	62
36	The Southern Kalahari: a potential new dust source in the Southern Hemisphere?. Environmental Research Letters, 2012, 7, 024001.	5.2	60

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37	Vegetation Responses to 2012â€“2016 Drought in Northern and Southern California. Geophysical Research Letters, 2019, 46, 3810-3821.	4.0	60
38	Soilâ€“Litter Mixing Accelerates Decomposition in a Chihuahuan Desert Grassland. Ecosystems, 2013, 16, 183-195.	3.4	59
39	Monitoring changes of NDVI in protected areas of southern California. Ecological Indicators, 2018, 88, 485-494.	6.3	59
40	Impact of feedbacks on Chihuahuan desert grasslands: Transience and metastability. Journal of Geophysical Research, 2009, 114, .	3.3	58
41	The National Wind Erosion Research Network: Building a standardized long-term data resource for aeolian research, modeling and land management. Aeolian Research, 2016, 22, 23-36.	2.7	58
42	Evaluation of a new model of aeolian transport in the presence of vegetation. Journal of Geophysical Research F: Earth Surface, 2013, 118, 288-306.	2.8	57
43	Dust: Smallâ€scale processes with global consequences. Eos, 2011, 92, 241-242.	0.1	56
44	Dependence of wind erosion and dust emission on surface heterogeneity: Stochastic modeling. Journal of Geophysical Research, 2005, 110, .	3.3	53
45	An ENSO predictor of dust emission in the southwestern United States. Geophysical Research Letters, 2002, 29, 46-1-46-3.	4.0	48
46	Predicting and understanding ecosystem responses to climate change at continental scales. Frontiers in Ecology and the Environment, 2008, 6, 273-280.	4.0	48
47	Impacts of anthropogenic SO_x, NO_xand NH₃on acidification of coastal waters and shipping lanes. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	43
48	The effect of roughness elements on wind erosion: The importance of surface shear stress distribution. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6066-6084.	3.3	43
49	The Interactive Role of Wind and Water in Functioning of Drylands: What Does the Future Hold?. BioScience, 2018, 68, 670-677.	4.9	42
50	A simple method to estimate threshold friction velocity of wind erosion in the field. Geophysical Research Letters, 2010, 37, .	4.0	41
51	A method to retrieve the spectral complex refractive index and single scattering optical properties of dust deposited in mountain snow. Journal of Glaciology, 2017, 63, 133-147.	2.2	41
52	An Integrated View of Complex Landscapes: A Big Data-Model Integration Approach to Transdisciplinary Science. BioScience, 2018, 68, 653-669.	4.9	38
53	Aeolian process effects on vegetation communities in an arid grassland ecosystem. Ecology and Evolution, 2012, 2, 809-821.	1.9	37
54	Assimilating optical satellite remote sensing images and field data to predict surface indicators in the Western U.S.: Assessing error in satellite predictions based on large geographical datasets with the use of machine learning. Remote Sensing of Environment, 2019, 233, 111382.	11.0	37

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55	Characterizing the Role of Wind and Dust in Traffic Accidents in California. GeoHealth, 2019, 3, 328-336.	4.0	36
56	The Impact of Drought on Native Southern California Vegetation: Remote Sensing Analysis Using <scp>MODIS</scp>â€Derived Time Series. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 1927-1939.	3.0	36
57	The contribution of brown vegetation to vegetation dynamics. Ecology, 2010, 91, 743-755.	3.2	34
58	Sediment deposition and soil nutrient heterogeneity in two desert grassland ecosystems, southern New Mexico. Plant and Soil, 2009, 319, 67-84.	3.7	33
59	Resilience and recovery potential of duneland vegetation in the southern Kalahari. Ecosphere, 2014, 5, 1-14.	2.2	33
60	Evaluating Ecohydrological Theories of Woody Root Distribution in the Kalahari. PLoS ONE, 2012, 7, e33996.	2.5	32
61	Abiotic processes are insufficient for fertile island development: A 10â€year artificial shrub experiment in a desert grassland. Geophysical Research Letters, 2017, 44, 2245-2253.	4.0	32
62	The season for large fires in Southern California is projected to lengthen in a changing climate. Communications Earth & Environment, 2022, 3, .	6.8	31
63	Indices for estimating fractional snow cover in the western Tibetan Plateau. Journal of Glaciology, 2009, 55, 737-745.	2.2	29
64	Berylliumâ€7 in soils and vegetation along an arid precipitation gradient in Owens Valley, California. Geophysical Research Letters, 2011, 38, .	4.0	28
65	Potential dust emissions from the southern Kalahari's dunelands. Journal of Geophysical Research F: Earth Surface, 2013, 118, 307-314.	2.8	28
66	Impact of Agropastoral Management on Wind Erosion in Sahelian Croplands. Land Degradation and Development, 2018, 29, 800-811.	3.9	28
67	Characterizing spatial variability in coastal wetland biomass across multiple scales using UAV and satellite imagery. Remote Sensing in Ecology and Conservation, 2021, 7, 411-429.	4.3	28
68	Fireâ€induced albedo change and surface radiative forcing in subâ€Saharan Africa savanna ecosystems: Implications for the energy balance. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6186-6201.	3.3	28
69	Dryland Ecosystems. , 2007, , 271-307.		28
70	A tribute to Michael R. Raupach for contributions to aeolian fluid dynamics. Aeolian Research, 2015, 19, 37-54.	2.7	27
71	Potential of grass invasions in desert shrublands to create novel ecosystem states under variable climate. Ecohydrology, 2016, 9, 1496-1506.	2.4	27
72	On the effects of wildfires on precipitation in Southern Africa. Climate Dynamics, 2019, 52, 951-967.	3.8	27

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73	Changes in the spatial variation of soil properties following shifting cultivation in a Mexican tropical dry forest. Biogeochemistry, 2007, 84, 99-113.	3.5	26
74	Observation- and model-based estimates of particulate dry nitrogen deposition to the oceans. Atmospheric Chemistry and Physics, 2017, 17, 8189-8210.	4.9	26
75	Vegetation Canopy Gap Size and Height: Critical Indicators for Wind Erosion Monitoring and Management. Rangeland Ecology and Management, 2021, 76, 78-83.	2.3	26
76	Asynchronous Response of Tropical Forest Leaf Phenology to Seasonal and El NiÃ±o-Driven Drought. PLoS ONE, 2010, 5, e11325.	2.5	25
77	Consistency of wind erosion assessments across land use and land cover types: A critical analysis. Aeolian Research, 2014, 15, 253-260.	2.7	25
78	Ecosystem-scale spatial heterogeneity of stable isotopes of soil nitrogen in African savannas. Landscape Ecology, 2013, 28, 685-698.	4.2	24
79	The impact of atmospheric conditions and instrument noise on atmospheric correction and spectral mixture analysis of multispectral imagery. Remote Sensing of Environment, 2015, 164, 130-141.	11.0	24
80	Biological invasions and climate change amplify each otherâ€™s effects on dryland degradation. Global Change Biology, 2022, 28, 285-295.	9.5	23
81	A quantitative description of the interspecies diversity of belowground structure in savanna woody plants. Ecosphere, 2015, 6, 1-15.	2.2	21
82	Soil organic carbon in savannas decreases with anthropogenic climate change. Geoderma, 2018, 309, 7-16.	5.1	21
83	Disproving the BodÃ©lÃ© Depression as the Primary Source of Dust Fertilizing the Amazon Rainforest. Geophysical Research Letters, 2020, 47, e2020GL088020.	4.0	21
84	Modifying connectivity to promote state change reversal: the importance of geomorphic context and plantâ€“soil feedbacks. Ecology, 2020, 101, e03069.	3.2	21
85	Integrating Imaging Spectrometer and Synthetic Aperture Radar Data for Estimating Wetland Vegetation Aboveground Biomass in Coastal Louisiana. Remote Sensing, 2019, 11, 2533.	4.0	20
86	Impact of burned areas on the northern African seasonal climate from the perspective of regional modeling. Climate Dynamics, 2016, 47, 3393-3413.	3.8	19
87	A global analysis of diurnal variability in dust and dust mixture using CATS observations. Atmospheric Chemistry and Physics, 2021, 21, 1427-1447.	4.9	19
88	The EMIT mission information yield for mineral dust radiative forcing. Remote Sensing of Environment, 2021, 258, 112380.	11.0	19
89	Relating spatial patterns of fractional land cover to savanna vegetation morphology using multi-scale remote sensing in the Central Kalahari. International Journal of Remote Sensing, 2014, 35, 2082-2104.	2.9	16
90	Soil organic C and total N pools in the Kalahari: potential impacts of climate change on C sequestration in savannas. Plant and Soil, 2015, 396, 27-44.	3.7	16

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91	Guiding principles for using satellite-derived maps in rangeland management. Rangelands, 2022, 44, 78-86.	1.9	16
92	Quantifying Drought Sensitivity of Mediterranean Climate Vegetation to Recent Warming: A Case Study in Southern California. Remote Sensing, 2019, 11, 2902.	4.0	15
93	Deciphering the past to inform the future: preparing for the next (â€œreally bigâ€) extreme event. Frontiers in Ecology and the Environment, 2020, 18, 401-408.	4.0	14
94	Estimating total horizontal aeolian flux within shrubâ€invaded groundwaterâ€dependent meadows using empirical and mechanistic models. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1132-1146.	2.8	13
95	A Toolkit for Ecosystem Ecologists in the Time of Big Science. Ecosystems, 2017, 20, 259-266.	3.4	13
96	Drone-Based Remote Sensing for Research on Wind Erosion in Drylands: Possible Applications. Remote Sensing, 2021, 13, 283.	4.0	13
97	Parameterizing an aeolian erosion model for rangelands. Aeolian Research, 2022, 54, 100769.	2.7	13
98	The interactive nutrient and water effects on vegetation biomass at two <scp>A</scp>frican savannah sites with different mean annual precipitation. African Journal of Ecology, 2012, 50, 446-454.	0.9	12
99	Relating variation of dust on snow to bare soil dynamics in the western United States. Environmental Research Letters, 2013, 8, 044054.	5.2	12
100	Dustâ€rainfall feedback in West African Sahel. Geophysical Research Letters, 2015, 42, 7563-7571.	4.0	12
101	An Assessment of Multiple Drivers Determining Woody Species Composition and Structure: A Case Study from the Kalahari, Botswana. Land, 2019, 8, 122.	2.9	12
102	Desertification and Land Degradation. , 2019, , 573-602.		10
103	On the prediction of threshold friction velocity of wind erosion using soil reflectance spectroscopy. Aeolian Research, 2015, 19, 129-136.	2.7	9
104	UAVâ€derived imagery for vegetation structure estimation in rangelands: validation and application. Ecosphere, 2021, 12, e03830.	2.2	8
105	A Mechanism of Land Degradation in Turfâ€Mantled Slopes of the Tibetan Plateau. Geophysical Research Letters, 2018, 45, 4041-4048.	4.0	6
106	Germination and early establishment of dryland grasses and shrubs on intact and wind-eroded soils under greenhouse conditions. Plant and Soil, 2021, 465, 245-260.	3.7	6
107	Desertification in an Arid Shrubland in the Southwestern United States. Geospatial Technology and the Role of Location in Science, 2001, , 53-70.	0.5	6
108	Satellite prediction of soil Î´13C distributions in a southern African savanna. Journal of Geochemical Exploration, 2009, 102, 137-141.	3.2	5

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109	Impact of water characteristics on the discrimination of benthic cover in and around coral reefs from imaging spectrometer data. Remote Sensing of Environment, 2020, 239, 111631.	11.0	5
110	Modelling Wind Erosion and Dust Emission on Vegetated Surfaces. , 2005, , 137-156.		4
111	Mapping Areas of the Southern Ocean Where Productivity Likely Depends on Dustâ€Delivered Iron. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD030926.	3.3	4
112	Connectivity: insights from the U.S. Long Term Ecological Research Network. Ecosphere, 2021, 12, e03432.	2.2	4
113	Where and How Often Does Rain Prevent Dust Emission?. Geophysical Research Letters, 2022, 49, .	4.0	4
114	Modeling the short-term fire effects on vegetation dynamics and surface energy in southern Africa using the improved SSiB4/TRIFFID-Fire model. Geoscientific Model Development, 2021, 14, 7639-7657.	3.6	4
115	Ecosystem dynamics and aeolian sediment transport in the southern Kalahari. African Journal of Ecology, 2020, 58, 337-344.	0.9	3
116	Why and How to Write a Highâ€Impact Review Paper: Lessons From Eight Years of Editorial Board Service to <i>Reviews of Geophysics</i>. Reviews of Geophysics, 2017, 55, 860-863.	23.0	1
117	Remote Sensing of Nitrogen and Carbon Isotope Compositions in Terrestrial Ecosystems. , 2010, , 51-70.		1
118	Evaluation of dust production efficiencies in sandy sediments. Earth Surface Processes and Landforms, 2022, 47, 1229-1237.	2.5	1
119	Appreciation of peer reviewers for 2015. Reviews of Geophysics, 2016, 54, 277-277.	23.0	0
120	Appreciation of Peer Reviewers for 2017. Reviews of Geophysics, 2018, 56, 566-566.	23.0	0
121	Thank You to Our 2018 Peer Reviewers. Reviews of Geophysics, 2019, 57, 4-4.	23.0	0