# Greg Okin

## List of Publications by Citations



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|---|---|---|---|
| 117 papers | 6,148 citations | 42 h-index | 76 g-index |
| 134 ext. papers | 6,990 ext. citations | 6 avg, IF | 6.01 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 117 | Global distribution of atmospheric phosphorus sources, concentrations and deposition rates, and anthropogenic impacts. *Global Biogeochemical Cycles*, **2008**, 22, n/a-n/a | 5.9 | 504 |
| 116 | Impact of desert dust on the biogeochemistry of phosphorus in terrestrial ecosystems. *Global Biogeochemical Cycles*, **2004**, 18, n/a-n/a | 5.9 | 295 |
| 115 | Practical limits on hyperspectral vegetation discrimination in arid and semiarid environments. *Remote Sensing of Environment*, **2001**, 77, 212-225 | 13.2 | 250 |
| 114 | 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 | 3.8 | 249 |
| 113 | A synthetic review of feedbacks and drivers of shrub encroachment in arid grasslands. *Ecohydrology* , **2012**, 5, 520-530 | 2.5 | 247 |
| 112 | The ecology of dust. *Frontiers in Ecology and the Environment*, **2010**, 8, 423-430 | 5.5 | 210 |
| 111 | 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, 3854-9 | 11.5 | 193 |
| 110 | AEOLIAN PROCESSES AND THE BIOSPHERE. *Reviews of Geophysics*, **2011**, 49, | 23.1 | 182 |
| 109 | A new model of wind erosion in the presence of vegetation. *Journal of Geophysical Research*, **2008**, 113, | | 179 |
| 108 | Do Changes in Connectivity Explain Desertification?. *BioScience*, **2009**, 59, 237-244 | 5.7 | 174 |
| 107 | Desertification, land use, and the transformation of global drylands. *Frontiers in Ecology and the Environment*, **2015**, 13, 28-36 | 5.5 | 171 |
| 106 | On soil moisture–vegetation feedbacks and their possible effects on the dynamics of dryland ecosystems. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a | | 162 |
| 105 | Atmospheric fluxes of organic N and P to the global ocean. *Global Biogeochemical Cycles*, **2012**, 26, | 5.9 | 152 |
| 104 | Impacts of atmospheric nutrient deposition on marine productivity: Roles of nitrogen, phosphorus, and iron. *Global Biogeochemical Cycles*, **2011**, 25, n/a-n/a | 5.9 | 148 |
| 103 | Degradation of sandy arid shrubland environments: observations, process modelling, and management implications. *Journal of Arid Environments*, **2001**, 47, 123-144 | 2.5 | 140 |
| 102 | Connectivity in dryland landscapes: shifting concepts of spatial interactions. *Frontiers in Ecology and the Environment*, **2015**, 13, 20-27 | 5.5 | 124 |
| 101 | Effects of wind erosion on the spatial heterogeneity of soil nutrients in two desert grassland communities. *Biogeochemistry*, **2008**, 88, 73-88 | 3.8 | 124 |

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| 100 | 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 | 5.9 | 114 |
| 99 | Post-Fire Resource Redistribution in Desert Grasslands: A Possible Negative Feedback on Land Degradation. *Ecosystems*, **2009**, 12, 434-444 | 3.9 | 94 |
| 98 | Understanding the role of ecohydrological feedbacks in ecosystem state change in drylands. *Ecohydrology*, **2012**, 5, 174-183 | 2.5 | 93 |
| 97 | On the effect of moisture bonding forces in air-dry soils on threshold friction velocity of wind erosion. *Sedimentology*, **2006**, 53, 597-609 | 3.3 | 88 |
| 96 | Hydrologic and aeolian controls on vegetation patterns in arid landscapes. *Geophysical Research Letters*, **2007**, 34, | 4.9 | 83 |
| 95 | 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 | 4.8 | 66 |
| 94 | A reevaluation of the magnitude and impacts of anthropogenic atmospheric nitrogen inputs on the ocean. *Global Biogeochemical Cycles*, **2017**, 31, 289 | 5.9 | 65 |
| 93 | Albedo feedbacks to future climate via climate change impacts on dryland biocrusts. *Scientific Reports*, **2017**, 7, 44188 | 4.9 | 64 |
| 92 | Mapping North African landforms using continental scale unmixing of MODIS imagery. *Remote Sensing of Environment*, **2005**, 97, 470-483 | 13.2 | 64 |
| 91 | Relative spectral mixture analysis □A multitemporal index of total vegetation cover. *Remote Sensing of Environment*, **2007**, 106, 467-479 | 13.2 | 63 |
| 90 | Effect of grain size on remotely sensed spectral reflectance of sandy desert surfaces. *Remote Sensing of Environment*, **2004**, 89, 272-280 | 13.2 | 59 |
| 89 | 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 | 13.2 | 57 |
| 88 | Impact of feedbacks on Chihuahuan desert grasslands: Transience and metastability. *Journal of Geophysical Research*, **2009**, 114, | | 53 |
| 87 | Spatial heterogeneity and sources of soil carbon in southern African savannas. *Geoderma*, **2009**, 149, 402-408 | 6.7 | 50 |
| 86 | The Southern Kalahari: a potential new dust source in the Southern Hemisphere?. *Environmental Research Letters*, **2012**, 7, 024001 | 6.2 | 50 |
| 85 | Effects of enhanced wind erosion on surface soil texture and characteristics of windblown sediments. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a | | 49 |
| 84 | Dependence of wind erosion and dust emission on surface heterogeneity: Stochastic modeling. *Journal of Geophysical Research*, **2005**, 110, | | 49 |
| 83 | Dust: Small-scale processes with global consequences. *Eos*, **2011**, 92, 241-242 | 1.5 | 48 |

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| 82 | Environmental impacts of food consumption by dogs and cats. *PLoS ONE*, **2017**, 12, e0181301 | 3.7 | 46 |
| 81 | 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 | 13.2 | 46 |
| 80 | Evaluation of a new model of aeolian transport in the presence of vegetation. *Journal of Geophysical Research F: Earth Surface*, **2013**, 118, 288-306 | 3.8 | 45 |
| 79 | Soil–litter Mixing Accelerates Decomposition in a Chihuahuan Desert Grassland. *Ecosystems*, **2013**, 16, 183-195 | 3.9 | 45 |
| 78 | The Grassland–Shrubland Regime Shift in the Southwestern United States: Misconceptions and Their Implications for Management. *BioScience*, **2018**, 68, 678-690 | 5.7 | 43 |
| 77 | 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 | 3.9 | 42 |
| 76 | An ENSO predictor of dust emission in the southwestern United States. *Geophysical Research Letters*, **2002**, 29, 46-1-46-3 | 4.9 | 42 |
| 75 | Predicting and understanding ecosystem responses to climate change at continental scales. *Frontiers in Ecology and the Environment*, **2008**, 6, 273-280 | 5.5 | 41 |
| 74 | Monitoring changes of NDVI in protected areas of southern California. *Ecological Indicators*, **2018**, 88, 485-494 | 5.8 | 38 |
| 73 | Impacts of anthropogenic SOx, NOx and NH3 on acidification of coastal waters and shipping lanes. *Geophysical Research Letters*, **2011**, 38, n/a-n/a | 4.9 | 37 |
| 72 | Vegetation Responses to 2012–2016 Drought in Northern and Southern California. *Geophysical Research Letters*, **2019**, 46, 3810-3821 | 4.9 | 35 |
| 71 | A simple method to estimate threshold friction velocity of wind erosion in the field. *Geophysical Research Letters*, **2010**, 37, n/a-n/a | 4.9 | 35 |
| 70 | 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 | 4.4 | 32 |
| 69 | Evaluating ecohydrological theories of woody root distribution in the Kalahari. *PLoS ONE*, **2012**, 7, e33996 | 3.7 | 31 |
| 68 | 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 | 13.2 | 31 |
| 67 | 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 | 3.4 | 30 |
| 66 | Sediment deposition and soil nutrient heterogeneity in two desert grassland ecosystems, southern New Mexico. *Plant and Soil*, **2009**, 319, 67-84 | 4.2 | 30 |
| 65 | Beryllium-7 in soils and vegetation along an arid precipitation gradient in Owens Valley, California. *Geophysical Research Letters*, **2011**, 38, | 4.9 | 28 |

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| 64 | Aeolian process effects on vegetation communities in an arid grassland ecosystem. *Ecology and Evolution*, **2012**, 2, 809-21 | 2.8 | 27 |
| 63 | Resilience and recovery potential of duneland vegetation in the southern Kalahari. *Ecosphere*, **2014**, 5, art2 | 3.1 | 26 |
| 62 | The contribution of brown vegetation to vegetation dynamics. *Ecology*, **2010**, 91, 743-55 | 4.6 | 26 |
| 61 | Indices for estimating fractional snow cover in the western Tibetan Plateau. *Journal of Glaciology*, **2009**, 55, 737-745 | 3.4 | 25 |
| 60 | Dryland Ecosystems **2007**, 271-307 | | 24 |
| 59 | A tribute to Michael R. Raupach for contributions to aeolian fluid dynamics. *Aeolian Research*, **2015**, 19, 37-54 | 3.9 | 23 |
| 58 | Changes in the spatial variation of soil properties following shifting cultivation in a Mexican tropical dry forest. *Biogeochemistry*, **2007**, 84, 99-113 | 3.8 | 23 |
| 57 | The Impact of Drought on Native Southern California Vegetation: Remote Sensing Analysis Using MODIS-Derived Time Series. *Journal of Geophysical Research G: Biogeosciences*, **2018**, 123, 1927-1939 | 3.7 | 23 |
| 56 | Potential of grass invasions in desert shrublands to create novel ecosystem states under variable climate. *Ecohydrology*, **2016**, 9, 1496-1506 | 2.5 | 23 |
| 55 | The Interactive Role of Wind and Water in Functioning of Drylands: What Does the Future Hold?. *BioScience*, **2018**, 68, 670-677 | 5.7 | 23 |
| 54 | Observation- and Model-Based Estimates of Particulate Dry Nitrogen Deposition to the Oceans. *Atmospheric Chemistry and Physics*, **2017**, 17, 8189-8210 | 6.8 | 22 |
| 53 | Potential dust emissions from the southern Kalahari's dunelands. *Journal of Geophysical Research F: Earth Surface*, **2013**, 118, 307-314 | 3.8 | 22 |
| 52 | An Integrated View of Complex Landscapes: A Big Data-Model Integration Approach to Transdisciplinary Science. *BioScience*, **2018**, 68, 653-669 | 5.7 | 22 |
| 51 | Consistency of wind erosion assessments across land use and land cover types: A critical analysis. *Aeolian Research*, **2014**, 15, 253-260 | 3.9 | 21 |
| 50 | Fire-induced albedo change and surface radiative forcing in sub-Saharan Africa savanna ecosystems: Implications for the energy balance. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 6186-6201 | 4.4 | 21 |
| 49 | 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 | 13.2 | 20 |
| 48 | Ecosystem-scale spatial heterogeneity of stable isotopes of soil nitrogen in African savannas. *Landscape Ecology*, **2013**, 28, 685-698 | 4.3 | 20 |
| 47 | Abiotic processes are insufficient for fertile island development: A 10-year artificial shrub experiment in a desert grassland. *Geophysical Research Letters*, **2017**, 44, 2245-2253 | 4.9 | 19 |

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| 46 | 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 | 13.2 | 19 |
| 45 | Characterizing the Role of Wind and Dust in Traffic Accidents in California. *GeoHealth*, **2019**, 3, 328-336 | 5 | 19 |
| 44 | Impact of Agropastoral Management on Wind Erosion in Sahelian Croplands. *Land Degradation and Development*, **2018**, 29, 800-811 | 4.4 | 18 |
| 43 | Asynchronous response of tropical forest leaf phenology to seasonal and el Niño-driven drought. *PLoS ONE*, **2010**, 5, e11325 | 3.7 | 18 |
| 42 | Impact of burned areas on the northern African seasonal climate from the perspective of regional modeling. *Climate Dynamics*, **2016**, 47, 3393-3413 | 4.2 | 16 |
| 41 | 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 | 4.2 | 16 |
| 40 | Soil organic carbon in savannas decreases with anthropogenic climate change. *Geoderma*, **2018**, 309, 7-16 | 6.7 | 16 |
| 39 | On the effects of wildfires on precipitation in Southern Africa. *Climate Dynamics*, **2019**, 52, 951-967 | 4.2 | 14 |
| 38 | Disproving the Bodélé Depression as the Primary Source of Dust Fertilizing the Amazon Rainforest. *Geophysical Research Letters*, **2020**, 47, e2020GL088020 | 4.9 | 13 |
| 37 | Integrating Imaging Spectrometer and Synthetic Aperture Radar Data for Estimating Wetland Vegetation Aboveground Biomass in Coastal Louisiana. *Remote Sensing*, **2019**, 11, 2533 | 5 | 13 |
| 36 | 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 | 3.1 | 12 |
| 35 | A quantitative description of the interspecies diversity of belowground structure in savanna woody plants. *Ecosphere*, **2015**, 6, art154 | 3.1 | 12 |
| 34 | Estimating total horizontal aeolian flux within shrub-invaded groundwater-dependent meadows using empirical and mechanistic models. *Journal of Geophysical Research F: Earth Surface*, **2013**, 118, 1132-1146 | 3.8 | 11 |
| 33 | Modifying connectivity to promote state change reversal: the importance of geomorphic context and plant-soil feedbacks. *Ecology*, **2020**, 101, e03069 | 4.6 | 11 |
| 32 | The interactive nutrient and water effects on vegetation biomass at two African savannah sites with different mean annual precipitation. *African Journal of Ecology*, **2012**, 50, 446-454 | 0.8 | 10 |
| 31 | A Toolkit for Ecosystem Ecologists in the Time of Big Science. *Ecosystems*, **2017**, 20, 259-266 | 3.9 | 10 |
| 30 | Relating variation of dust on snow to bare soil dynamics in the western United States. *Environmental Research Letters*, **2013**, 8, 044054 | 6.2 | 10 |
| 29 | Dust-rainfall feedback in West African Sahel. *Geophysical Research Letters*, **2015**, 42, 7563-7571 | 4.9 | 9 |

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| 28 | An Assessment of Multiple Drivers Determining Woody Species Composition and Structure: A Case Study from the Kalahari, Botswana. *Land*, **2019**, 8, 122 | 3.5 | 8 |
| 27 | On the prediction of threshold friction velocity of wind erosion using soil reflectance spectroscopy. *Aeolian Research*, **2015**, 19, 129-136 | 3.9 | 7 |
| 26 | 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 | 5.3 | 7 |
| 25 | 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 |
| 24 | Vegetation Canopy Gap Size and Height: Critical Indicators for Wind Erosion Monitoring and Management. *Rangeland Ecology and Management*, **2021**, 76, 78-83 | 2.2 | 6 |
| 23 | Quantifying Drought Sensitivity of Mediterranean Climate Vegetation to Recent Warming: A Case Study in Southern California. *Remote Sensing*, **2019**, 11, 2902 | 5 | 6 |
| 22 | Drone-Based Remote Sensing for Research on Wind Erosion in Drylands: Possible Applications. *Remote Sensing*, **2021**, 13, 283 | 5 | 6 |
| 21 | Guiding principles for using satellite-derived maps in rangeland management. *Rangelands*, **2021**, | 1.1 | 6 |
| 20 | Deciphering the past to inform the future: preparing for the next (really big) extreme event. *Frontiers in Ecology and the Environment*, **2020**, 18, 401-408 | 5.5 | 5 |
| 19 | Desertification and Land Degradation **2019**, 573-602 | | 5 |
| 18 | A global analysis of diurnal variability in dust and dust mixture using CATS observations. *Atmospheric Chemistry and Physics*, **2021**, 21, 1427-1447 | 6.8 | 5 |
| 17 | A Mechanism of Land Degradation in Turf-Mantled Slopes of the Tibetan Plateau. *Geophysical Research Letters*, **2018**, 45, 4041-4048 | 4.9 | 4 |
| 16 | Satellite prediction of soil $\delta^{13}C$ distributions in a southern African savanna. *Journal of Geochemical Exploration*, **2009**, 102, 137-141 | 3.8 | 4 |
| 15 | Biological invasions and climate change amplify each other's effects on dryland degradation. *Global Change Biology*, **2022**, 28, 285-295 | 11.4 | 4 |
| 14 | The EMIT mission information yield for mineral dust radiative forcing. *Remote Sensing of Environment*, **2021**, 258, 112380 | 13.2 | 4 |
| 13 | Mapping Areas of the Southern Ocean Where Productivity Likely Depends on Dust-Delivered Iron. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2019JD030926 | 4.4 | 3 |
| 12 | 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 | 13.2 | 2 |
| 11 | Observation- and Model-Based Estimates of Particulate Dry Nitrogen Deposition to the Oceans **2017**, | | 2 |

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| 10 | Parameterizing an aeolian erosion model for rangelands. *Aeolian Research*, **2022**, 54, 100769 | 3.9 | 2 |
| 9 | Ecosystem dynamics and aeolian sediment transport in the southern Kalahari. *African Journal of Ecology*, **2020**, 58, 337-344 | 0.8 | 2 |
| 8 | Remote Sensing of Nitrogen and Carbon Isotope Compositions in Terrestrial Ecosystems **2010**, 51-70 | | 1 |
| 7 | Connectivity: insights from the U.S. Long Term Ecological Research Network. *Ecosphere*, **2021**, 12, e03433 | 3.1 | 1 |
| 6 | 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 | 4.2 | 1 |
| 5 | The season for large fires in Southern California is projected to lengthen in a changing climate. *Communications Earth & Environment*, **2022**, 3, | 6.1 | 1 |
| 4 | 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 | 6.3 | 1 |
| 3 | Where and How Often Does Rain Prevent Dust Emission?. *Geophysical Research Letters*, **2022**, 49, | 4.9 | 0 |
| 2 | UAV-derived imagery for vegetation structure estimation in rangelands: validation and application. *Ecosphere*, **2021**, 12, e03830 | 3.1 | 0 |
| 1 | Modelling Wind Erosion and Dust Emission on Vegetated Surfaces **2005**, 137-156 | | |