

Emilio Rodriguez-Caballero

List of Publications by Year in descending order

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Version: 2024-02-01

66
papers

2,695
citations

186209

28
h-index

197736

49
g-index

72
all docs

72
docs citations

72
times ranked

2055
citing authors

#	ARTICLE	IF	CITATIONS
1	Mediterranean badlands: Their driving processes and climate change futures. <i>Earth Surface Processes and Landforms</i> , 2022, 47, 17-31.	1.2	9
2	Temporal dynamics of dryland soil CO ₂ efflux using high-frequency measurements: Patterns and dominant drivers among biocrust types, vegetation and bare soil. <i>Geoderma</i> , 2022, 405, 115404.	2.3	10
3	Effects of climate change and land use intensification on regional biological soil crust cover and composition in southern Africa. <i>Geoderma</i> , 2022, 406, 115508.	2.3	14
4	Biocrusts and catchment asymmetry in Tabernas Desert (Almeria, Spain). <i>Geoderma</i> , 2022, 406, 115526.	2.3	6
5	Design Optimization of Biocrust-Plant Spatial Configuration for Dry Ecosystem Restoration Using Water Redistribution and Erosion Models. <i>Frontiers in Ecology and Evolution</i> , 2022, 10, .	1.1	3
6	Ecogeographical patterns in owl plumage colouration: Climate and vegetation cover predict global colour variation. <i>Global Ecology and Biogeography</i> , 2022, 31, 515-530.	2.7	7
7	Global cycling and climate effects of aeolian dust controlled by biological soil crusts. <i>Nature Geoscience</i> , 2022, 15, 458-463.	5.4	36
8	What is a biocrust? A refined, contemporary definition for a broadening research community. <i>Biological Reviews</i> , 2022, 97, 1768-1785.	4.7	87
9	Effect of water availability on induced cyanobacterial biocrust development. <i>Catena</i> , 2021, 197, 104988.	2.2	19
10	Mask R-CNN and OBIA Fusion Improves the Segmentation of Scattered Vegetation in Very High-Resolution Optical Sensors. <i>Sensors</i> , 2021, 21, 320.	2.1	28
11	Landslides on dry badlands: UAV images to identify the drivers controlling their unexpected occurrence on vegetated hillslopes. <i>Journal of Arid Environments</i> , 2021, 187, 104434.	1.2	8
12	Non-Destructive Biomass Estimation in Mediterranean Alpha Steppes: Improving Traditional Methods for Measuring Dry and Green Fractions by Combining Proximal Remote Sensing Tools. <i>Remote Sensing</i> , 2021, 13, 2970.	1.8	5
13	Overview and Seasonality of PM ₁₀ and PM _{2.5} in Guayaquil, Ecuador. <i>Aerosol Science and Engineering</i> , 2021, 5, 499-515.	1.1	6
14	Non-rainfall water inputs: A key water source for biocrust carbon fixation. <i>Science of the Total Environment</i> , 2021, 792, 148299.	3.9	18
15	Effects of Agricultural Use on Endangered Plant Taxa in Spain. <i>Agriculture (Switzerland)</i> , 2021, 11, 1097.	1.4	2
16	Biocrust restoration: a key tool to recover degraded arid ecosystem functioning. <i>Ecosistemas</i> , 2021, 30, 2236.	0.2	3
17	Cryptogamic organisms are a substantial source and sink for volatile organic compounds in the Amazon region. <i>Communications Earth & Environment</i> , 2021, 2, .	2.6	5
18	The pervasive and multifaceted influence of biocrusts on water in the world's drylands. <i>Global Change Biology</i> , 2020, 26, 6003-6014.	4.2	129

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19	Comment on "Kidron, G. J. (2018). Biocrust research: A critical view on eight common hydrological-related paradigms and dubious theses. <i>Ecohydrology</i> , 2020, 13, e2215.	1.1	1
20	Biological soil crusts in ecological restoration: emerging research and perspectives. <i>Restoration Ecology</i> , 2020, 28, S3.	1.4	46
21	Water Regulation in Cyanobacterial Biocrusts from Drylands: Negative Impacts of Anthropogenic Disturbance. <i>Water (Switzerland)</i> , 2020, 12, 720.	1.2	42
22	Land degradation effects on composition of pioneering soil communities: An alternative successional sequence for dryland cyanobacterial biocrusts. <i>Soil Biology and Biochemistry</i> , 2020, 146, 107824.	4.2	28
23	Habitat requirements of the Mhorr gazelle: What does this species need to survive in the wild?. <i>Global Ecology and Conservation</i> , 2020, 24, e01389.	1.0	3
24	Identifying social-ecological gaps to promote biocrust conservation actions. <i>Web Ecology</i> , 2020, 20, 117-132.	0.4	6
25	Towards a predictive framework for biocrust mediation of plant performance: A meta-analysis. <i>Journal of Ecology</i> , 2019, 107, 2789-2807.	1.9	92
26	Land cover and its transformation in the backward trajectory footprint region of the Amazon Tall Tower Observatory. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 8425-8470.	1.9	41
27	Biocrust landscape-scale spatial distribution is strongly controlled by terrain attributes: Topographic thresholds for colonization in a semiarid badland system. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 2771-2779.	1.2	27
28	Assessing the influence of soil abiotic and biotic factors on Nostoc commune inoculation success. <i>Plant and Soil</i> , 2019, 444, 57-70.	1.8	12
29	The first reintroduction project for mhorr gazelle (<i>Nanger dama mhorr</i>) into the wild: Knowledge and experience gained to support future conservation actions. <i>Global Ecology and Conservation</i> , 2019, 19, e00680.	1.0	13
30	Spectral Response Analysis: An Indirect and Non-Destructive Methodology for the Chlorophyll Quantification of Biocrusts. <i>Remote Sensing</i> , 2019, 11, 1350.	1.8	24
31	Habitat-dependent composition of bacterial and fungal communities in biological soil crusts from Oman. <i>Scientific Reports</i> , 2019, 9, 6468.	1.6	34
32	The protective role of cyanobacteria on soil stability in two Aridisols in northeastern Iran. <i>Geoderma Regional</i> , 2019, 16, e00201.	0.9	23
33	Dryland photoautotrophic soil surface communities endangered by global change. <i>Nature Geoscience</i> , 2018, 11, 185-189.	5.4	302
34	Insights into microbial involvement in desert varnish formation retrieved from metagenomic analysis. <i>Environmental Microbiology Reports</i> , 2018, 10, 264-271.	1.0	27
35	Runoff from biocrust: A vital resource for vegetation performance on Mediterranean steppes. <i>Ecohydrology</i> , 2018, 11, e1977.	1.1	34
36	Ecosystem services provided by biocrusts: From ecosystem functions to social values. <i>Journal of Arid Environments</i> , 2018, 159, 45-53.	1.2	67

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37	Image analysis to qualify soil erodibility into a wind tunnel. <i>Ciencia E Agrotecnologia</i> , 2018, 42, 240-247.	1.5	1
38	Biological soil crusts of the Succulent Karoo: a review. <i>African Journal of Range and Forage Science</i> , 2018, 35, 335-350.	0.6	20
39	Runoff Generation in Badlands. , 2018, , 155-190.		3
40	Soil CO ₂ exchange controlled by the interaction of biocrust successional stage and environmental variables in two semiarid ecosystems. <i>Soil Biology and Biochemistry</i> , 2018, 124, 11-23.	4.2	41
41	Water harvesting techniques based on terrain modification enhance vegetation survival in dryland restoration. <i>Catena</i> , 2018, 167, 319-326.	2.2	14
42	Restoring soil functions by means of cyanobacteria inoculation: Importance of soil conditions and species selection. <i>Land Degradation and Development</i> , 2018, 29, 3184-3193.	1.8	79
43	Temporal variability and time compression of sediment yield in small Mediterranean catchments: impacts for land and water management. <i>Soil Use and Management</i> , 2018, 34, 388-403.	2.6	16
44	Long-term hydrological monitoring in arid-semiarid Almería, SE Spain. What have we learned?. <i>Cuadernos De Investigacion Geografica</i> , 2018, 44, 581-600.	0.6	4
45	Transferability of multi- and hyperspectral optical biocrust indices. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2017, 126, 94-107.	4.9	34
46	Biomass assessment of microbial surface communities by means of hyperspectral remote sensing data. <i>Science of the Total Environment</i> , 2017, 586, 1287-1297.	3.9	22
47	Irrigated land expansion since 1985 in Southern Tunisia. <i>Journal of African Earth Sciences</i> , 2017, 129, 146-152.	0.9	4
48	Effects of biocrust on soil erosion and organic carbon losses under natural rainfall. <i>Catena</i> , 2017, 148, 117-125.	2.2	125
49	Optical Remote Sensing for Soil Mapping and Monitoring. , 2017, , 87-125.		14
50	Vertical and lateral soil moisture patterns on a Mediterranean karst hillslope. <i>Journal of Hydrology and Hydromechanics</i> , 2016, 64, 209-217.	0.7	16
51	A new adaptive method to filter terrestrial laser scanner point clouds using morphological filters and spectral information to conserve surface micro-topography. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2016, 117, 141-148.	4.9	24
52	Biocrusts positively affect the soil water balance in semiarid ecosystems. <i>Ecohydrology</i> , 2016, 9, 1208-1221.	1.1	145
53	Patterns of runoff and sediment production in response to land-use changes in an ungauged Mediterranean catchment. <i>Journal of Hydrology</i> , 2015, 531, 1054-1066.	2.3	33
54	Biological soil crusts accelerate the nitrogen cycle through large NO and HONO emissions in drylands. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 15384-15389.	3.3	153

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55	Swelling of biocrusts upon wetting induces changes in surface micro-topography. <i>Soil Biology and Biochemistry</i> , 2015, 82, 107-111.	4.2	41
56	Biological soil crust effects must be included to accurately model infiltration and erosion in drylands: An example from Tabernas Badlands. <i>Geomorphology</i> , 2015, 241, 331-342.	1.1	46
57	Importance of biocrusts in dryland monitoring using spectral indices. <i>Remote Sensing of Environment</i> , 2015, 170, 32-39.	4.6	46
58	Penetration resistance of biological soil crusts and its dynamics after crust removal: Relationships with runoff and soil detachment. <i>Catena</i> , 2015, 126, 164-172.	2.2	52
59	Dynamics of organic carbon losses by water erosion after biocrust removal. <i>Journal of Hydrology and Hydromechanics</i> , 2014, 62, 258-268.	0.7	41
60	Advanced image processing methods as a tool to map and quantify different types of biological soil crust. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2014, 90, 59-67.	4.9	47
61	Cross-scale interactions between surface components and rainfall properties. Non-linearities in the hydrological and erosive behavior of semiarid catchments. <i>Journal of Hydrology</i> , 2014, 517, 815-825.	2.3	63
62	Evaluaci3n de los diferentes 3ndices para cartografiar biocostras a partir de informaci3n espectral. <i>Revista De Teledeteccion</i> , 2014, , 79.	0.6	2
63	Soil Loss and Runoff in Semiarid Ecosystems: A Complex Interaction Between Biological Soil Crusts, Micro-topography, and Hydrological Drivers. <i>Ecosystems</i> , 2013, 16, 529-546.	1.6	108
64	Effects of biological soil crusts on surface roughness and implications for runoff and erosion. <i>Geomorphology</i> , 2012, 145-146, 81-89.	1.1	188
65	Runoff at contrasting scales in a semiarid ecosystem: A complex balance between biological soil crust features and rainfall characteristics. <i>Journal of Hydrology</i> , 2012, 452-453, 130-138.	2.3	81
66	Caracter3sticas de las costras f3sicas y biol3gicas del suelo con mayor influencia sobre la infiltraci3n y la erosi3n en ecosistemas semi3ridos. <i>Pirineos</i> , 2010, 165, 69-96.	0.6	11