Jayne Belnap

List of Publications by Year
in descending order

56 papers	9,038 citations	66315 42 h-index	155592 55 g-index
65 all docs	65 docs citations	65 times ranked	7452 citing authors

#	Article	IF	Citations
1	What is a biocrust? A refined, contemporary definition for a broadening research community. Biological Reviews, 2022, 97, 1768-1785.	4.7	87
2	Biocrusts do not differentially influence emergence and early establishment of native and nonâ€native grasses. Ecosphere, 2021, 12, .	1.0	2
3	Grazing-Induced Changes to Biological Soil Crust Cover Mediate Hillslope Erosion in Long-Term Exclosure Experiment. Rangeland Ecology and Management, 2020, 73, 61-72.	1.1	16
4	Seasonal and individual event-responsiveness are key determinants of carbon exchange across plant functional types. Oecologia, 2020, 193, 811-825.	0.9	5
5	Comment on â€˜Kidron, G. J. (2018). Biocrust research: A critical view on eight common hydrologicalâ€related paradigms and dubious theses. <i>Ecohydrology</i>, e2061â€™. Ecohydrology, 2020, 13, e2215.	1.1	1
6	Earlier plant growth helps compensate for reduced carbon fixation after 13Âyears of warming. Functional Ecology, 2019, 33, 2071-2080.	1.7	25
7	Towards a predictive framework for biocrust mediation of plant performance: A metaâ€analysis. Journal of Ecology, 2019, 107, 2789-2807.	1.9	92
8	Temporal and abiotic fluctuations may be preventing successful rehabilitation of soilâ€stabilizing biocrust communities. Ecological Applications, 2019, 29, e01908.	1.8	18
9	Shrub persistence and increased grass mortality in response to drought in dryland systems. Global Change Biology, 2019, 25, 3121-3135.	4.2	60
10	Wind erosion and dust from <scp>US</scp> drylands: a review of causes, consequences, and solutions in a changing world. Ecosphere, 2019, 10, e02650.	1.0	151
11	Interactions of Microhabitat and Time Control Grassland Bacterial and Fungal Composition. Frontiers in Ecology and Evolution, 2019, 7, .	1.1	12
12	Dryland photoautotrophic soil surface communities endangered by global change. Nature Geoscience, 2018, 11, 185-189.	5.4	302
13	Maximizing establishment and survivorship of field-collected and greenhouse-cultivated biocrusts in a semi-cold desert. Plant and Soil, 2018, 429, 213-225.	1.8	53
14	Insights from Long-Term Ungrazed and Grazed Watersheds in a Salt Desert Colorado Plateau Ecosystem. Rangeland Ecology and Management, 2018, 71, 492-505.	1.1	26
15	Beyond traditional ecological restoration on the Colorado Plateau. Restoration Ecology, 2018, 26, 1055-1060.	1.4	25
16	Elevated aeolian sediment transport on the Colorado Plateau, USA: The role of grazing, vehicle disturbance, and increasing aridity. Earth Surface Processes and Landforms, 2018, 43, 2897-2914.	1.2	35
17	Biological soil crust and disturbance controls on surface hydrology in a semiâ€arid ecosystem. Ecosphere, 2017, 8, e01691.	1.0	94
18	Albedo feedbacks to future climate via climate change impacts on dryland biocrusts. Scientific Reports, 2017, 7, 44188.	1.6	84

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19	Ecohydrological role of biological soil crusts across a gradient in levels of development. Ecohydrology, 2017, 10, e1875.	1.1	31
20	Experimental warming in a dryland community reduced plant photosynthesis and soil <scp>CO</scp>₂ efflux although the relationship between the fluxes remained unchanged. Functional Ecology, 2017, 31, 297-305.	1.7	34
21	The concurrent use of novel soil surface microclimate measurements to evaluate CO2 pulses in biocrusted interspaces in a cool desert ecosystem. Biogeochemistry, 2017, 135, 239-249.	1.7	58
22	The Role of Biocrusts in Arid Land Hydrology. Ecological Studies, 2016, , 321-346.	0.4	54
23	Biological Soil Crusts as Soil Stabilizers. Ecological Studies, 2016, , 305-320.	0.4	62
24	Patterns and Controls on Nitrogen Cycling of Biological Soil Crusts. Ecological Studies, 2016, , 257-285.	0.4	113
25	Controls on Distribution Patterns of Biological Soil Crusts at Micro- to Global Scales. Ecological Studies, 2016, , 173-197.	0.4	77
26	Biocrusts in the Context of Global Change. Ecological Studies, 2016, , 451-476.	0.4	45
27	Observations of net soil exchange of CO2 in a dryland show experimental warming increases carbon losses in biocrust soils. Biogeochemistry, 2015, 126, 363-378.	1.7	74
28	C3 and C4 plant responses to increased temperatures and altered monsoonal precipitation in a cool desert on the Colorado Plateau, USA. Oecologia, 2015, 177, 997-1013.	0.9	64
29	Growth responses of five desert plants as influenced by biological soil crusts from a temperate desert, China. Ecological Research, 2015, 30, 1037-1045.	0.7	37
30	Climate change and physical disturbance cause similar community shifts in biological soil crusts. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12116-12121.	3.3	225
31	Biological soil crusts (biocrusts) as a model system in community, landscape and ecosystem ecology. Biodiversity and Conservation, 2014, 23, 1619-1637.	1.2	98
32	Spatial and temporal patterns of dust emissions (2004â€“2012) in semi-arid landscapes, southeastern Utah, USA. Aeolian Research, 2014, 15, 31-43.	1.1	51
33	Changes to dryland rainfall result in rapid moss mortality and altered soil fertility. Nature Climate Change, 2012, 2, 752-755.	8.1	257
34	Precipitationâ€driven carbon balance controls survivorship of desert biocrust mosses. Ecology, 2012, 93, 1626-1636.	1.5	104
35	Shifting species interactions in terrestrial dryland ecosystems under altered water availability and climate change. Biological Reviews, 2012, 87, 563-582.	4.7	141
36	Warming and increased precipitation frequency on the Colorado Plateau: implications for biological soil crusts and soil processes. Plant and Soil, 2012, 355, 265-282.	1.8	105

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37	Dust: Smallâ€scale processes with global consequences. Eos, 2011, 92, 241-242.	0.1	56
38	On the brink of change: plant responses to climate on the Colorado Plateau. Ecosphere, 2011, 2, art68.	1.0	58
39	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.	3.3	242
40	Response of Colorado River runoff to dust radiative forcing in snow. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17125-17130.	3.3	324
41	The ecology of dust. Frontiers in Ecology and the Environment, 2010, 8, 423-430.	1.9	248
42	Sediment losses and gains across a gradient of livestock grazing and plant invasion in a cool, semi-arid grassland, Colorado Plateau, USA. Aeolian Research, 2009, 1, 27-43.	1.1	102
43	Revisiting classic water erosion models in drylands: The strong impact of biological soil crusts. Soil Biology and Biochemistry, 2008, 40, 2309-2316.	4.2	134
44	Soil lichen and moss cover and species richness can be highly dynamic: The effects of invasion by the annual exotic grass Bromus tectorum, precipitation, and temperature on biological soil crusts in SE Utah. Applied Soil Ecology, 2006, 32, 63-76.	2.1	137
45	Correlates of biological soil crust abundance across a continuum of spatial scales: support for a hierarchical conceptual model. Journal of Applied Ecology, 2006, 43, 152-163.	1.9	140
46	Impacts of Biological Soil Crust Disturbance and Composition on C and N Loss from Water Erosion. Biogeochemistry, 2006, 77, 247-263.	1.7	164
47	The potential roles of biological soil crusts in dryland hydrologic cycles. Hydrological Processes, 2006, 20, 3159-3178.	1.1	581
48	Regional vegetation die-off in response to global-change-type drought. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 15144-15148.	3.3	1,779
49	EVIDENCE FOR MICRONUTRIENT LIMITATION OF BIOLOGICAL SOIL CRUSTS: IMPORTANCE TO ARID-LANDS RESTORATION. , 2005, 15, 1941-1951.		129
50	LINKAGES BETWEEN MICROBIAL AND HYDROLOGIC PROCESSES IN ARID AND SEMIARID WATERSHEDS. Ecology, 2005, 86, 298-307.	1.5	269
51	SOIL BIOTA CAN CHANGE AFTER EXOTIC PLANT INVASION: DOES THIS AFFECT ECOSYSTEM PROCESSES?. Ecology, 2005, 86, 3007-3017.	1.5	158
52	The world at your feet: desert biological soil crusts. Frontiers in Ecology and the Environment, 2003, 1, 181-189.	1.9	356
53	Roads as Conduits for Exotic Plant Invasions in a Semiarid Landscape. Conservation Biology, 2003, 17, 420-432.	2.4	506
54	Boundaries in Miniature: Two Examples from Soil. BioScience, 2003, 53, 739.	2.2	110

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55	Vulnerability of desert biological soil crusts to wind erosion: the influences of crust development, soil texture, and disturbance. Journal of Arid Environments, 1998, 39, 133-142.	1.2	483
56	Surface disturbances: Their role in accelerating desertification. Environmental Monitoring and Assessment, 1995, 37, 39-57.	1.3	320