Burkhard BÃ¼del

List of Publications by Year
in descending order

74 papers	4,334 citations	126858 33 h-index	114418 63 g-index
76 all docs	76 docs citations	76 times ranked	4288 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	Functional performance of biocrusts across Europe and its implications for drylands. Journal of Arid Environments, 2021, 186, 104402.	1.2	13
3	Symphyonema bifilamentata sp. nov., the Right Fischerella ambigua 108b: Half a Decade of Research on Taxonomy and Bioactive Compounds in New Light. Microorganisms, 2021, 9, 745.	1.6	5
4	Emendation of the Coccoid Cyanobacterial Genus Gloeocapsopsis and Description of the New Species Gloeocapsopsis diffluens sp. nov. and Gloeocapsopsis dulcis sp. nov. Isolated From the Coastal Range of the Atacama Desert (Chile). Frontiers in Microbiology, 2021, 12, 671742.	1.5	11
5	Final Destination? Pinpointing Hyella disjuncta sp. nov. PCC 6712 (Cyanobacteria) Based on Taxonomic Aspects, Multicellularity, Nitrogen Fixation and Biosynthetic Gene Clusters. Life, 2021, 11, 916.	1.1	2
6	Opening the Gap: Rare Lichens With Rare Cyanobionts â€“ Unexpected Cyanobiont Diversity in Cyanobacterial Lichens of the Order Lichinales. Frontiers in Microbiology, 2021, 12, 728378.	1.5	17
7	Desert breathâ€”How fog promotes a novel type of soil biocenosis, forming the coastal Atacama Desertâ€™s living skin. Geobiology, 2020, 18, 113-124.	1.1	38
8	Lichens Bite the Dust â€“ A Bioweathering Scenario in the Atacama Desert. IScience, 2020, 23, 101647.	1.9	15
9	Biodiversity of Algae and Cyanobacteria in Biological Soil Crusts Collected Along a Climatic Gradient in Chile Using an Integrative Approach. Microorganisms, 2020, 8, 1047.	1.6	48
10	Shifting Boundaries: Ecological and Geographical Range extension Based on Three New Species in the Cyanobacterial Genera <i>Cyanocohniella, Oculatella, and, Aliterella</i>. Journal of Phycology, 2020, 56, 1216-1231.	1.0	35
11	Habitat fragmentation and forest management alter woody plant communities in a Central European beech forest landscape. Biodiversity and Conservation, 2020, 29, 2729-2747.	1.2	4
12	Water availability shapes edaphic and lithic cyanobacterial communities in the Atacama Desert. Journal of Phycology, 2019, 55, 1306-1318.	1.0	27
13	Ecophysiology and phylogeny of new terricolous and epiphytic chlorolichens in a fog oasis of the Atacama Desert. MicrobiologyOpen, 2019, 8, e894.	1.2	10
14	Neglected but Potent Dry Forest Players: Ecological Role and Ecosystem Service Provision of Biological Soil Crusts in the Human-Modified Caatinga. Frontiers in Ecology and Evolution, 2019, 7, .	1.1	11
15	Usual alga from unusual habitats: Biodiversity of Klebsormidium (Klebsormidiophyceae, Streptophyta) from the phylogenetic superclade G isolated from biological soil crusts. Molecular Phylogenetics and Evolution, 2019, 133, 236-255.	1.2	17
16	Strong in combination: Polyphasic approach enhances arguments for coldâ€assigned cyanobacterial endemism. MicrobiologyOpen, 2019, 8, e00729.	1.2	23
17	Dryland photoautotrophic soil surface communities endangered by global change. Nature Geoscience, 2018, 11, 185-189.	5.4	302
18	Environmental determinants of biocrust carbon fluxes across Europe: possibilities for a functional type approach. Plant and Soil, 2018, 429, 147-157.	1.8	11

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19	Genus richness of microalgae and Cyanobacteria in biological soil crusts from Svalbard and Livingston Island: morphological versus molecular approaches. Polar Biology, 2018, 41, 909-923.	0.5	65
20	Assessing recovery of biological soil crusts across a latitudinal gradient in Western Europe. Restoration Ecology, 2018, 26, 543-554.	1.4	17
21	Development of the polysaccharidic matrix in biocrusts induced by a cyanobacterium inoculated in sand microcosms. Biology and Fertility of Soils, 2018, 54, 27-40.	2.3	72
22	Can Antarctic lichens acclimatize to changes in temperature?. Global Change Biology, 2018, 24, 1123-1135.	4.2	63
23	A Case Study on Fog/Low Stratus Occurrence at Las Lomitas, Atacama Desert (Chile) as a Water Source for Biological Soil Crusts. Aerosol and Air Quality Research, 2018, 18, 254-26.	0.9	46
24	Biological soil crusts along a climatic gradient in Chile: Richness and imprints of phototrophic microorganisms in phosphorus biogeochemical cycling. Soil Biology and Biochemistry, 2018, 127, 286-300.	4.2	45
25	Wet season cyanobacterial N enrichment highly correlated with species richness and <i>Nostoc</i> in the northern Australian savannah. Biogeosciences, 2018, 15, 2149-2159.	1.3	13
26	Effect of vegetation and its succession on water repellency in sandy soils. Ecohydrology, 2018, 11, e1991.	1.1	37
27	Ecophysiological characterization of early successional biological soil crusts in heavily human-impacted areas. Biogeosciences, 2018, 15, 1919-1931.	1.3	20
28	Annual net primary productivity of a cyanobacteria-dominated biological soil crust in the Gulf Savannah, Queensland, Australia. Biogeosciences, 2018, 15, 491-505.	1.3	38
29	Uncovering biological soil crusts: carbon content and structure of intact Arctic, Antarctic and alpine biological soil crusts. Biogeosciences, 2018, 15, 1149-1160.	1.3	20
30	Pedogenic and microbial interrelations to regional climate and local topography: New insights from a climate gradient (arid to humid) along the Coastal Cordillera of Chile. Catena, 2018, 170, 335-355.	2.2	77
31	Estimating Net Photosynthesis of Biological Soil Crusts in the Atacama Using Hyperspectral Remote Sensing. Remote Sensing, 2018, 10, 891.	1.8	16
32	Molecular data favours a monogeneric<i>Peltulaceae</i>(Lichinomycetes). Lichenologist, 2018, 50, 313-327.	0.5	9
33	Biological soil crusts of Arctic Svalbard and of Livingston Island, Antarctica. Polar Biology, 2017, 40, 399-411.	0.5	63
34	Biomass assessment of microbial surface communities by means of hyperspectral remote sensing data. Science of the Total Environment, 2017, 586, 1287-1297.	3.9	22
35	Adaptive differentiation coincides with local bioclimatic conditions along an elevational cline in populations of a lichen-forming fungus. BMC Evolutionary Biology, 2017, 17, 93.	3.2	39
36	Lichen acclimation to changing environments: Photobiont switching vs. climateâ€specific uniqueness in <i>Psora decipiens</i>. Ecology and Evolution, 2017, 7, 2560-2574.	0.8	46

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37	Metabolic activity duration can be effectively predicted from macroclimatic data for biological soil crust habitats across Europe. Geoderma, 2017, 306, 10-17.	2.3	27
38	Cyanobacteria and Algae of Biological Soil Crusts. Ecological Studies, 2016, , 55-80.	0.4	91
39	Cyanobacterial diversity of western European biological soil crusts along a latitudinal gradient. FEMS Microbiology Ecology, 2016, 92, fiw157.	1.3	58
40	Controls on Distribution Patterns of Biological Soil Crusts at Micro- to Global Scales. Ecological Studies, 2016, , 173-197.	0.4	77
41	Composition and Macrostructure of Biological Soil Crusts. Ecological Studies, 2016, , 159-172.	0.4	22
42	Biogeography of photoautotrophs in the high polar biome. Frontiers in Plant Science, 2015, 6, 692.	1.7	56
43	Habitat stress initiates changes in composition, CO2 gas exchange and C-allocation as life traits in biological soil crusts. ISME Journal, 2014, 8, 2104-2115.	4.4	62
44	Biological soil crusts in continental Antarctica: Garwood Valley, southern Victoria Land, and Diamond Hill, Darwin Mountains region. Antarctic Science, 2014, 26, 115-123.	0.5	42
45	Improved appreciation of the functioning and importance of biological soil crusts in Europe: the Soil Crust International Project (SCIN). Biodiversity and Conservation, 2014, 23, 1639-1658.	1.2	93
46	Genotypic and Phenotypic Diversity of Cyanobacteria in Biological Soil Crusts of the Succulent Karoo and Nama Karoo of Southern Africa. Microbial Ecology, 2014, 67, 286-301.	1.4	60
47	Contrasting hydrological response of coastal and desert biocrusts. Hydrological Processes, 2014, 28, 361-371.	1.1	30
48	Biological soil crusts in a changing world: introduction to the special issue. Biodiversity and Conservation, 2014, 23, 1611-1617.	1.2	10
49	Ecological characterization of soil-inhabiting and hypolithic soil crusts within the Knersvlakte, South Africa. Ecological Processes, 2013, 2, .	1.6	21
50	Lichen species dominance and the resulting photosynthetic behavior of Sonoran Desert soil crust types (Baja California, Mexico). Ecological Processes, 2013, 2, .	1.6	27
51	Species diversity, biomass and long-term patterns of biological soil crusts with special focus on Cyanobacteria of the Acacia aneura Mulga Lands of Queensland, Australia. Algological Studies (Stuttgart, Germany: 2007), 2012, 140, 23-50.	0.4	11
52	Contribution of cryptogamic covers to the global cycles of carbon and nitrogen. Nature Geoscience, 2012, 5, 459-462.	5.4	711
53	Midday dew â€" an overlooked factor enhancing photosynthetic activity of corticolous epiphytes in a wet tropical rain forest. New Phytologist, 2012, 194, 245-253.	3.5	30
54	Eukaryotic Algae. Ecological Studies, 2011, , 45-63.	0.4	11

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55	Cyanobacteria: Habitats and Species. Ecological Studies, 2011, , 11-21.	0.4	15
56	Flechten. Der Erfolg einer Symbiose. Biologie in Unserer Zeit, 2010, 40, 322-333.	0.3	0
57	The molecular population structure of the tall forb Cicerbita alpina (Asteraceae) supports the idea of cryptic glacial refugia in central Europe. Botanical Journal of the Linnean Society, 2010, 164, 142-154.	0.8	38
58	Southern African Biological Soil Crusts are Ubiquitous and Highly Diverse in Drylands, Being Restricted by Rainfall Frequency. Microbial Ecology, 2009, 57, 229-247.	1.4	271
59	Rangeâ€wide phylogeography of the European temperateâ€montane herbaceous plant <i>Meum athamanticum</i> Jacq.: evidence for periglacial persistence. Journal of Biogeography, 2009, 36, 1588-1599.	1.4	43
60	The Ascomycota Tree of Life: A Phylum-wide Phylogeny Clarifies the Origin and Evolution of Fundamental Reproductive and Ecological Traits. Systematic Biology, 2009, 58, 224-239.	2.7	581
61	DEWFALL AS A WATER SOURCE FREQUENTLY ACTIVATES THE ENDOLITHIC CYANOBACTERIAL COMMUNITIES IN THE GRANITES OF TAYLOR VALLEY, ANTARCTICA¹. Journal of Phycology, 2008, 44, 1415-1424.	1.0	66
62	Fast Reactivation by High Air Humidity and Photosynthetic Performance of Alpine Lichens Growing Endolithically in Limestone. Arctic, Antarctic, and Alpine Research, 2007, 39, 309-317.	0.4	14
63	Nitrogen input by cyanobacterial biofilms of an inselberg into a tropical rainforest in French Guiana. Flora: Morphology, Distribution, Functional Ecology of Plants, 2007, 202, 521-529.	0.6	26
64	Otto Ludwig Lange â€" 80 years: Eco-physiology â€" the key to understanding the function and distribution patterns of plants and lichens. Flora: Morphology, Distribution, Functional Ecology of Plants, 2007, 202, 590-607.	0.6	1
65	DIATOMS LIVING INSIDE THE THALLUS OF THE GREEN ALGAL LICHEN <i>COENOGONIUM LINKII</i> IN NEOTROPICAL LOWLAND RAIN FORESTS¹. Journal of Phycology, 2004, 40, 70-73.	1.0	30
66	Lichen carbon gain under tropical conditions: water relations and CO2 exchange of Lobariaceae species of a lower montane rainforest in Panama. Lichenologist, 2004, 36, 329-342.	0.5	43
67	Photosynthetic field capacity of cyanobacteria of a tropical inselberg of the Guiana Highlands. European Journal of Phycology, 2003, 38, 247-256.	0.9	50
68	Cyanobacteria of inselbergs in the Atlantic rainforest zone of eastern Brazil. Phycologia, 2002, 41, 498-506.	0.6	17
69	Carotenoid composition of terrestrial cyanobacteria: response to natural light conditions in open rock habitats in Venezuela. European Journal of Phycology, 2001, 36, 367-375.	0.9	61
70	Mapping and analysis of distribution patterns of lichens on rural medieval churches in north-eastern Germany. Lichenologist, 2001, 33, 231-248.	0.5	10
71	Lichen carbon gain under tropical conditions : water relations and CO2 exchange of three Leptogium species of a lower montane rainforest in Panama. Flora: Morphology, Distribution, Functional Ecology of Plants, 2000, 195, 172-190.	0.6	41
72	Macrolichens of Montane Rain Forests in Panama, Province ChiriquÃ Lichenologist, 2000, 32, 539-551.	0.5	23

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73	Ecology and diversity of rock-inhabiting cyanobacteria in tropical regions. European Journal of Phycology, 1999, 34, 361-370.	0.9	104
74	Evidence for the functioning of photosynthetic CO2-concentrating mechanisms in lichens containing green algal and cyanobacterial photobionts. Planta, 1993, 191, 57.	1.6	77