Ferran Garcia-Pichel

List of Publications by Year
in descending order

94	7,505	53660	54797
papers	citations	45 h-index	84 g-index

101	101	101	5352
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Expanding the Pulseâ€“Reserve Paradigm to Microorganisms on the Basis of Differential Reserve Management Strategies. BioScience, 2022, 72, 638-650.	2.2	3
2	A Regulatory Linkage Between Scytonemin Production and Hormogonia Differentiation in Nostoc punctiforme. IScience, 2022, , 104361.	1.9	3
3	Rainfall pulse regime drives biomass and community composition in biological soil crusts. Ecology, 2022, 103, e3744.	1.5	10
4	What Could Explain Î´13C Signatures in Biocrust Cyanobacteria of Drylands?. Microbial Ecology, 2021, 81, 134-145.	1.4	1
5	A symbiotic nutrient exchange within the cyanosphere microbiome of the biocrust cyanobacterium, Microcoleus vaginatus. ISME Journal, 2021, 15, 282-292.	4.4	44
6	On the Past, Present, and Future Role of Biology in NASAâ€™s Exploration of our Solar System. , 2021, 53, .		0
7	The Independent and Shared Transcriptomic Response to UVA, UVB and Oxidative Stress in the Cyanobacterium Nostoc punctiforme ATCC 29133. Photochemistry and Photobiology, 2021, 97, 1063-1071.	1.3	1
8	Coleofasciculaceae, a Monophyletic Home for the Microcoleus steenstrupii Complex and Other Desiccationâ€tolerant Filamentous Cyanobacteria. Journal of Phycology, 2021, 57, 1563-1579.	1.0	23
9	The allometry of cellular DNA and ribosomal gene content among microbes and its use for the assessment of microbiome community structure. Microbiome, 2021, 9, 173.	4.9	9
10	Cyanobacterial community composition and their functional shifts associated with biocrust succession in the Gurbantunggut Desert. Environmental Microbiology Reports, 2021, 13, 884-898.	1.0	8
11	Cydrasil 3, a curated 16S rRNA gene reference package and web app for cyanobacterial phylogenetic placement. Scientific Data, 2021, 8, 230.	2.4	22
12	Beneficial Cyanosphere Heterotrophs Accelerate Establishment of Cyanobacterial Biocrust. Applied and Environmental Microbiology, 2021, 87, e0123621.	1.4	15
13	Agricultural practices drive biological loads, seasonal patterns and potential pathogens in the aerobiome of a mixed-land-use dryland. Science of the Total Environment, 2021, 798, 149239.	3.9	11
14	Long-read metagenomics of soil communities reveals phylum-specific secondary metabolite dynamics. Communications Biology, 2021, 4, 1302.	2.0	21
15	Addressing barriers to improve biocrust colonization and establishment in dryland restoration. Restoration Ecology, 2020, 28, S150.	1.4	25
16	What's in a name? The case of cyanobacteria. Journal of Phycology, 2020, 56, 1-5.	1.0	39
17	Effect of preconditioning to the soil environment on the performance of 20 cyanobacterial strains used as inoculum for biocrust restoration. Restoration Ecology, 2020, 28, S187.	1.4	17
18	The emergence of microbiome centres. Nature Microbiology, 2020, 5, 2-3.	5.9	13

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19	Inoculation and habitat amelioration efforts in biological soil crust recovery vary by desert and soil texture. Restoration Ecology, 2020, 28, S96.	1.4	26
20	A Fog-Irrigated Soil Substrate System Unifies and Optimizes Cyanobacterial Biocrust Inoculum Production. Applied and Environmental Microbiology, 2020, 86, .	1.4	10
21	Niche Partitioning with Temperature among Heterocystous Cyanobacteria (Scytonema spp., Nostoc) Tj ETQq1 1 0.784314 rgBT /Over	1.6	16
22	The Trait Repertoire Enabling Cyanobacteria to Bloom Assessed through Comparative Genomic Complexity and Metatranscriptomics. MBio, 2020, 11, .	1.8	13
23	Succession and Colonization Dynamics of Endolithic Phototrophs within Intertidal Carbonates. Microorganisms, 2020, 8, 214.	1.6	12
24	Microbial inoculum production for biocrust restoration: testing the effects of a common substrate versus native soils on yield and community composition. Restoration Ecology, 2020, 28, S194.	1.4	8
25	Biological Soil Crusts as Modern Analogs for the Archean Continental Biosphere: Insights from Carbon and Nitrogen Isotopes. Astrobiology, 2020, 20, 815-819.	1.5	5
26	Cyanobacterial biocrust diversity in Mediterranean ecosystems along a latitudinal and climatic gradient. New Phytologist, 2019, 221, 123-141.	3.5	77
27	Cyanobacteria. , 2019, , .		4
28	Optimizing the Production of Nursery-Based Biological Soil Crusts for Restoration of Arid Land Soils. Applied and Environmental Microbiology, 2019, 85, .	1.4	24
29	Timing the Evolutionary Advent of Cyanobacteria and the Later Great Oxidation Event Using Gene Phylogenies of a Sunscreen. MBio, 2019, 10, .	1.8	54
30	Spatial segregation of the biological soil crust microbiome around its foundational cyanobacterium, Microcoleus vaginatus, and the formation of a nitrogen-fixing cyanosphere. Microbiome, 2019, 7, 55.	4.9	74
31	Nursing biocrusts: isolation, cultivation, and fitness test of indigenous cyanobacteria. Restoration Ecology, 2019, 27, 793-803.	1.4	62
32	Large Blooms of Bacillales (Firmicutes) Underlie the Response to Wetting of Cyanobacterial Biocrusts at Various Stages of Maturity. MBio, 2018, 9, .	1.8	28
33	A New Niche for Anoxygenic Phototrophs as Endoliths. Applied and Environmental Microbiology, 2018, 84, .	1.4	8
34	Exposure to predicted precipitation patterns decreases population size and alters community structure of cyanobacteria in biological soil crusts from the Chihuahuan Desert. Environmental Microbiology, 2018, 20, 259-269.	1.8	83
35	Flux balance modeling to predict bacterial survival during pulsed-activity events. Biogeosciences, 2018, 15, 2219-2229.	1.3	7
36	The Widely Conserved ebo Cluster Is Involved in Precursor Transport to the Periplasm during Scytonemin Synthesis in Nostoc punctiforme. MBio, 2018, 9, .	1.8	24

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37	Possible nitrogen fertilization of the early Earth Ocean by microbial continental ecosystems. Nature Communications, 2018, 9, 2530.	5.8	35
38	Establishing rates of lateral expansion of cyanobacterial biological soil crusts for optimal restoration. Plant and Soil, 2018, 429, 199-211.	1.8	29
39	Extensive Turnover of Compatible Solutes in Cyanobacteria Revealed by Deuterium Oxide (D₂O) Stable Isotope Probing. ACS Chemical Biology, 2017, 12, 674-681.	1.6	26
40	Carbon fixation from mineral carbonates. Nature Communications, 2017, 8, 1025.	5.8	12
41	Microbial Nursery Production of High-Quality Biological Soil Crust Biomass for Restoration of Degraded Dryland Soils. Applied and Environmental Microbiology, 2017, 83, .	1.4	55
42	Description of Deinococcus oregonensis sp. nov., from biological soil crusts in the Southwestern arid lands of the United States of America. Archives of Microbiology, 2017, 199, 69-76.	1.0	9
43	Mutational Studies of Putative Biosynthetic Genes for the Cyanobacterial Sunscreen Scytonemin in Nostoc punctiforme ATCC 29133. Frontiers in Microbiology, 2016, 7, 735.	1.5	28
44	Differential Responses of Dinitrogen Fixation, Diazotrophic Cyanobacteria and Ammonia Oxidation Reveal a Potential Warming-Induced Imbalance of the N-Cycle in Biological Soil Crusts. PLoS ONE, 2016, 11, e0164932.	1.1	32
45	Patterns and Controls on Nitrogen Cycling of Biological Soil Crusts. Ecological Studies, 2016, , 257-285.	0.4	113
46	Extreme cellular adaptations and cell differentiation required by a cyanobacterium for carbonate excavation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5712-5717.	3.3	60
47	Draft Genome Assembly of a Filamentous Euendolithic (True Boring) Cyanobacterium, Mastigocoleus testarum Strain BC008. Genome Announcements, 2016, 4, .	0.8	5
48	Bacteria increase arid-land soil surface temperature through the production of sunscreens. Nature Communications, 2016, 7, 10373.	5.8	156
49	Non-cyanobacterial diazotrophs mediate dinitrogen fixation in biological soil crusts during early crust formation. ISME Journal, 2016, 10, 287-298.	4.4	103
50	Exometabolite niche partitioning among sympatric soil bacteria. Nature Communications, 2015, 6, 8289.	5.8	178
51	Ammonia-oxidizing archaea respond positively to inorganic nitrogen addition in desert soils. FEMS Microbiology Ecology, 2015, 91, 1-11.	1.3	17
52	Hydrogen export from intertidal cyanobacterial mats: sources, fluxes and the influence of community composition. Environmental Microbiology, 2015, 17, 3738-3753.	1.8	20
53	Isolation of a significant fraction of non-phototroph diversity from a desert Biological Soil Crust. Frontiers in Microbiology, 2015, 6, 277.	1.5	50
54	Powerful fermentative hydrogen evolution of photosynthate in the cyanobacterium Lyngbya aestuarii BL J mediated by a bidirectional hydrogenase. Frontiers in Microbiology, 2014, 5, 680.	1.5	6

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55	Dynamic cyanobacterial response to hydration and dehydration in a desert biological soil crust. ISME Journal, 2013, 7, 2178-2191.	4.4	217
56	The Global Response of Nostoc punctiforme ATCC 29133 to UVA Stress, Assessed in a Temporal DNA Microarray Study. Photochemistry and Photobiology, 2013, 89, 415-423.	1.3	22
57	Temperature Drives the Continental-Scale Distribution of Key Microbes in Topsoil Communities. Science, 2013, 340, 1574-1577.	6.0	252
58	Functional Genomics of Novel Secondary Metabolites from Diverse Cyanobacteria Using Untargeted Metabolomics. Marine Drugs, 2013, 11, 3617-3631.	2.2	56
59	Comparative genomic analyses of the cyanobacterium, Lyngbya aestuarii BL J, a powerful hydrogen producer. Frontiers in Microbiology, 2013, 4, 363.	1.5	21
60	Patterns of diversity for fungal assemblages of biological soil crusts from the southwestern United States. Mycologia, 2012, 104, 353-361.	0.8	90
61	Soil microbial carbon and nitrogen transformations at a glacial foreland on Anvers Island, Antarctic Peninsula. Polar Biology, 2012, 35, 1459-1471.	0.5	44
62	CHARACTERIZATION OF A MARINE CYANOBACTERIUM THAT BORES INTO CARBONATES AND THE REDESCRIPTION OF THE GENUS MASTIGOCOLEUS¹. Journal of Phycology, 2012, 48, 740-749.	1.0	25
63	Nitrogen cycling in desert biological soil crusts across biogeographic regions in the Southwestern United States. Biogeochemistry, 2012, 108, 171-182.	1.7	96
64	Microbial ultraviolet sunscreens. Nature Reviews Microbiology, 2011, 9, 791-802.	13.6	346
65	Genome of the Cyanobacterium Microcoleus vaginatusFGP-2, a Photosynthetic Ecosystem Engineer of Arid Land Soil Biocrusts Worldwide. Journal of Bacteriology, 2011, 193, 4569-4570.	1.0	53
66	Microbial excavation of solid carbonates powered by P-type ATPase-mediated transcellular Ca ²⁺ transport. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21749-21754.	3.3	130
67	Fungal communities of lichen-dominated biological soil crusts: Diversity, relative microbial biomass, and their relationship to disturbance and crust cover. Journal of Arid Environments, 2010, 74, 1192-1199.	1.2	99
68	The Evolution of a Capacity to Build Supra-Cellular Ropes Enabled Filamentous Cyanobacteria to Colonize Highly Erodible Substrates. PLoS ONE, 2009, 4, e7801.	1.1	155
69	Gene Expression Patterns Associated with the Biosynthesis of the Sunscreen Scytonemin in Nostoc punctiforme ATCC 29133 in Response to UVA Radiation. Journal of Bacteriology, 2009, 191, 4639-4646.	1.0	82
70	Archaeal populations in biological soil crusts from arid lands in North America. Soil Biology and Biochemistry, 2009, 41, 2069-2074.	4.2	81
71	A comparative genomics approach to understanding the biosynthesis of the sunscreen scytonemin in cyanobacteria. BMC Genomics, 2009, 10, 336.	1.2	82
72	Sphingomonas mucosissima sp. nov. and Sphingomonas desiccabilis sp. nov., from biological soil crusts in the Colorado Plateau, USA. International Journal of Systematic and Evolutionary Microbiology, 2007, 57, 1028-1034.	0.8	68

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73	Modestobacter versicolor sp. nov., an actinobacterium from biological soil crusts that produces melanins under oligotrophy, with emended descriptions of the genus Modestobacter and Modestobacter multiseptatus Mevs et al. 2000. International Journal of Systematic and Evolutionary Microbiology, 2007, 57, 2014-2020.	0.8	50
74	Three distinct clades of cultured heterocystous cyanobacteria constitute the dominant N2-fixing members of biological soil crusts of the Colorado Plateau, USA. FEMS Microbiology Ecology, 2007, 60, 85-97.	1.3	106
75	Exophiala crusticola anam. nov. (affinity Herpotrichiellaceae), a novel black yeast from biological soil crusts in the Western United States. International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 2697-2702.	0.8	36
76	Relevance of ammonium oxidation within biological soil crust communities. Environmental Microbiology, 2005, 7, 1-12.	1.8	86
77	Microbial diversity of benthic mats along a tidal desiccation gradient. Environmental Microbiology, 2005, 7, 593-601.	1.8	91
78	Effects of phosphorus enrichment and grazing snails on modern stromatolitic microbial communities. Freshwater Biology, 2005, 50, 1808-1825.	1.2	116
79	Dyadobacter crusticola sp. nov., from biological soil crusts in the Colorado Plateau, USA, and an emended description of the genus Dyadobacter Chelius and Triplett 2000. International Journal of Systematic and Evolutionary Microbiology, 2005, 55, 1295-1299.	0.8	71
80	CHARACTERIZATION OF MICROBIALITEâ€FORMING CYANOBACTERIA IN A TROPICAL LAGOON: TIKEHAU ATOLL, TUAMOTU, FRENCH POLYNESIA. Journal of Phycology, 2003, 39, 862-873.	1.0	51
81	Evaluation of DNA Extraction Methods for Molecular Analyses of Microbial Communities in Modern Calcareous Microbialites. Geomicrobiology Journal, 2003, 20, 549-561.	1.0	31
82	Biosynthetic pathway of mycosporines (mycosporine-like amino acids) in the cyanobacterium Chlorogloeopsis sp. strain PCC 6912. Phycologia, 2003, 42, 384-392.	0.6	101
83	JETâ€SUSPENDED, CALCITEâ€BALLASTED CYANOBACTERIAL WATERWARTS IN A DESERT SPRING¹. Journal of Phycology, 2002, 38, 420-428.	1.0	15
84	Phylogenetic and Morphological Diversity of Cyanobacteria in Soil Desert Crusts from the Colorado Plateau. Applied and Environmental Microbiology, 2001, 67, 1902-1910.	1.4	347
85	Long-term compositional changes after transplant in a microbial mat cyanobacterial community revealed using a polyphasic approach. Environmental Microbiology, 2001, 3, 53-62.	1.8	63
86	Cyanobacteria track water in desert soils. Nature, 2001, 413, 380-381.	13.7	193
87	SALINITY TOLERANCE OF DIATOMS FROM THALASSIC HYPERSALINE ENVIRONMENTS. Journal of Phycology, 2000, 36, 1021-1034.	1.0	94
88	SALINITY-DEPENDENT LIMITATION OF PHOTOSYNTHESIS AND OXYGEN EXCHANGE IN MICROBIAL MATS. Journal of Phycology, 1999, 35, 227-238.	1.0	51
89	MICROENVIRONMENTS AND MICROSCALE PRODUCTIVITY OF CYANOBACTERIAL DESERT CRUSTS1. Journal of Phycology, 1996, 32, 774-782.	1.0	320
90	A model for internal selfâ€shading in planktonic organisms and its implications for the usefulness of ultraviolet sunscreens. Limnology and Oceanography, 1994, 39, 1704-1717.	1.6	361

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91	Occurrence of UV-Absorbing, Mycosporine-Like Compounds among Cyanobacterial Isolates and an Estimate of Their Screening Capacity. Applied and Environmental Microbiology, 1993, 59, 163-169.	1.4	387
92	Evidence Regarding the UV Sunscreen Role of a Mycosporine-Like Compound in the Cyanobacterium Gloeocapsa sp. Applied and Environmental Microbiology, 1993, 59, 170-176.	1.4	284
93	EVIDENCE FOR AN ULTRAVIOLET SUNSCREEN ROLE OF THE EXTRACELLULAR PIGMENT SCYTONEMIN IN THE TERRESTRIAL CYANOBACTERIUM Chiorogloeopsis sp.. Photochemistry and Photobiology, 1992, 56, 17-23.	1.3	328
94	CHARACTERIZATION AND BIOLOGICAL IMPLICATIONS OF SCYTONEMIN, A CYANOBACTERIAL SHEATH PIGMENT1. Journal of Phycology, 1991, 27, 395-409.	1.0	659