Craig W Herbold

List of Publications by Year
in descending order

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Version: 2024-02-01

81 papers	7,675 citations	70961 41 h-index	60497 81 g-index
102 all docs	102 docs citations	102 times ranked	8087 citing authors

#	Article	IF	Citations
1	Complete nitrification by Nitrospira bacteria. Nature, 2015, 528, 504-509.	13.7	1,878
2	Expanded metabolic versatility of ubiquitous nitrite-oxidizing bacteria from the genus Nitrospira. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11371-11376.	3.3	439
3	AmoA-Targeted Polymerase Chain Reaction Primers for the Specific Detection and Quantification of Comammox Nitrospira in the Environment. Frontiers in Microbiology, 2017, 8, 1508.	1.5	313
4	Cyanate as an energy source for nitrifiers. Nature, 2015, 524, 105-108.	13.7	231
5	Microbial temperature sensitivity and biomass change explain soil carbon loss with warming. Nature Climate Change, 2018, 8, 885-889.	8.1	230
6	Genomic insights into the Acidobacteria reveal strategies for their success in terrestrial environments. Environmental Microbiology, 2018, 20, 1041-1063.	1.8	228
7	Soil multifunctionality is affected by the soil environment and by microbial community composition and diversity. Soil Biology and Biochemistry, 2019, 136, 107521.	4.2	217
8	Rational design of a microbial consortium of mucosal sugar utilizers reduces Clostridiodes difficile colonization. Nature Communications, 2020, 11, 5104.	5.8	177
9	Peatland Acidobacteria with a dissimilatory sulfur metabolism. ISME Journal, 2018, 12, 1729-1742.	4.4	168
10	A flexible and economical barcoding approach for highly multiplexed amplicon sequencing of diverse target genes. Frontiers in Microbiology, 2015, 6, 731.	1.5	164
11	Chemosynthetic symbionts of marine invertebrate animals are capable of nitrogen fixation. Nature Microbiology, 2017, 2, 16195.	5.9	151
12	Widespread soil bacterium that oxidizes atmospheric methane. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 8515-8524.	3.3	149
13	Groundtruthing Next-Gen Sequencing for Microbial Ecologyâ€“Biases and Errors in Community Structure Estimates from PCR Amplicon Pyrosequencing. PLoS ONE, 2012, 7, e44224.	1.1	145
14	Low yield and abiotic origin of N2O formed by the complete nitrifier Nitrospira inopinata. Nature Communications, 2019, 10, 1836.	5.8	123
15	Characterization of the First â€œ Candidatus Nitrotogaâ€•Isolate Reveals Metabolic Versatility and Separate Evolution of Widespread Nitrite-Oxidizing Bacteria. MBio, 2018, 9, .	1.8	112
16	Ecological memory of recurrent drought modifies soil processes via changes in soil microbial community. Nature Communications, 2021, 12, 5308.	5.8	108
17	Ammoniaâ€oxidising archaea living at low pH: Insights from comparative genomics. Environmental Microbiology, 2017, 19, 4939-4952.	1.8	107
18	Cyanate and urea are substrates for nitrification by Thaumarchaeota in the marine environment. Nature Microbiology, 2019, 4, 234-243.	5.9	103

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19	Diversity analysis of sulfiteâ€•and sulfateâ€•reducing microorganisms by multiplex dsrA and dsrB amplicon sequencing using new primers and mock communityâ€•optimized bioinformatics. Environmental Microbiology, 2016, 18, 2994-3009.	1.8	98
20	Bacillus simplexâ€"A Little Known PGPB with Anti-Fungal Activityâ€"Alters Pea Legume Root Architecture and Nodule Morphology When Coinoculated with Rhizobium leguminosarum bv. viciae. Agronomy, 2013, 3, 595-620.	1.3	97
21	Ammonia-oxidizing archaea possess a wide range of cellular ammonia affinities. ISME Journal, 2022, 16, 272-283.	4.4	96
22	Salt marsh submarine groundwater discharge as traced by radium isotopes. Marine Chemistry, 2003, 84, 113-121.	0.9	89
23	A fiber-deprived diet disturbs the fine-scale spatial architecture of the murine colon microbiome. Nature Communications, 2019, 10, 4366.	5.8	82
24	Evidence of global-scale aeolian dispersal and endemism in isolated geothermal microbial communities of Antarctica. Nature Communications, 2014, 5, 3875.	5.8	76
25	Cultivation and Genomic Analysis of â€œCandidatus Nitrosocaldus islandicus,â€•an Obligately Thermophilic, Ammonia-Oxidizing Thaumarchaeon from a Hot Spring Biofilm in Graendalur Valley, Iceland. Frontiers in Microbiology, 2018, 9, 193.	1.5	76
26	Decoding the genomic tree of life. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 6608-6613.	3.3	70
27	Evidence Excluding the Root of the Tree of Life from the Actinobacteria. Molecular Biology and Evolution, 2007, 25, 1-4.	3.5	69
28	Genome beginnings: rooting the tree of life. Philosophical Transactions of the Royal Society B: Biological Sciences, 2009, 364, 2177-2185.	1.8	69
29	Biotransformation of Two Pharmaceuticals by the Ammonia-Oxidizing Archaeon Nitrososphaera gargensis. Environmental Science & Technology, 2016, 50, 4682-4692.	4.6	68
30	Single cell analyses reveal contrasting life strategies of the two main nitrifiers in the ocean. Nature Communications, 2020, 11, 767.	5.8	67
31	Activity and Metabolic Versatility of Complete Ammonia Oxidizers in Full-Scale Wastewater Treatment Systems. MBio, 2020, 11, .	1.8	65
32	Expansion of Thaumarchaeota habitat range is correlated with horizontal transfer of ATPase operons. ISME Journal, 2019, 13, 3067-3079.	4.4	59
33	An automated dyeâ€•dilution based seepage meter for the timeâ€•series measurement of submarine groundwater discharge. Limnology and Oceanography: Methods, 2003, 1, 16-28.	1.0	54
34	A Bioinformatics Guide to Plant Microbiome Analysis. Frontiers in Plant Science, 2019, 10, 1313.	1.7	54
35	Novel taxa of Acidobacteriota implicated in seafloor sulfur cycling. ISME Journal, 2021, 15, 3159-3180.	4.4	54
36	Exploring the upper pH limits of nitrite oxidation: diversity, ecophysiology, and adaptive traits of haloalkalitolerant Nitrospira. ISME Journal, 2020, 14, 2967-2979.	4.4	52

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37	Dissolved Iron Cycling in the Subterranean Estuary of a Coastal Bay: Waquoit Bay, Massachusetts. Biological Bulletin, 2002, 203, 255-256.	0.7	51
38	The cooling tower water microbiota: Seasonal dynamics and co-occurrence of bacterial and protist phylotypes. Water Research, 2019, 159, 464-479.	5.3	51
39	Evaluation of Primers Targeting the Diazotroph Functional Gene and Development of NifMAP â€“ A Bioinformatics Pipeline for Analyzing nifH Amplicon Data. Frontiers in Microbiology, 2018, 9, 703.	1.5	50
40	Characterization of a thaumarchaeal symbiont that drives incomplete nitrification in the tropical spongeIanthella basta. Environmental Microbiology, 2019, 21, 3831-3854.	1.8	50
41	An Economical and Flexible Dual Barcoding, Two-Step PCR Approach for Highly Multiplexed Amplicon Sequencing. Frontiers in Microbiology, 2021, 12, 669776.	1.5	48
42	Conversion of Rutin, a Prevalent Dietary Flavonol, by the Human Gut Microbiota. Frontiers in Microbiology, 2020, 11, 585428.	1.5	47
43	Evidence for a Gram-positive, Eubacterial Root of the Tree of Life. Molecular Biology and Evolution, 2007, 24, 1761-1768.	3.5	46
44	Local and regional influences over soil microbial metacommunities in the Transantarctic Mountains. Ecosphere, 2013, 4, 1-24.	1.0	45
45	Influence of soil properties on archaeal diversity and distribution in the McMurdo Dry Valleys, Antarctica. FEMS Microbiology Ecology, 2014, 89, 347-359.	1.3	44
46	Application of stableâ€isotope labelling techniques for the detection of active diazotrophs. Environmental Microbiology, 2018, 20, 44-61.	1.8	44
47	Composition and activity of nitrifier communities in soil are unresponsive to elevated temperature and CO2, but strongly affected by drought. ISME Journal, 2020, 14, 3038-3053.	4.4	43
48	Activities and metabolic versatility of distinct anammox bacteria in a full-scale wastewater treatment system. Water Research, 2021, 206, 117763.	5.3	42
49	Rooting the Tree of Life Using Nonubiquitous Genes. Molecular Biology and Evolution, 2007, 24, 130-136.	3.5	39
50	Survival strategies of ammonia-oxidizing archaea (AOA) in a full-scale WWTP treating mixed landfill leachate containing copper ions and operating at low-intensity of aeration. Water Research, 2021, 191, 116798.	5.3	39
51	Anaerobic bacterial degradation of protein and lipid macromolecules in subarctic marine sediment. ISME Journal, 2021, 15, 833-847.	4.4	38
52	Indications for enzymatic denitrification to N2O at low pH in an ammonia-oxidizing archaeon. ISME Journal, 2019, 13, 2633-2638.	4.4	35
53	Novel Alcaligenes ammonioxydans sp. nov. from wastewater treatment sludge oxidizes ammonia to <scp>N₂</scp> with a previously unknown pathway. Environmental Microbiology, 2021, 23, 6965-6980.	1.8	33
54	Evidence for a New Root of the Tree of Life. Systematic Biology, 2008, 57, 835-843.	2.7	31

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55	Membrane Lipid Composition of the Moderately Thermophilic Ammonia-Oxidizing Archaeon â€œ Candidatus Nitrosotenuis uzonensisâ€•at Different Growth Temperatures. Applied and Environmental Microbiology, 2019, 85, .	1.4	31
56	Sulfoquinovose is a select nutrient of prominent bacteria and a source of hydrogen sulfide in the human gut. ISME Journal, 2021, 15, 2779-2791.	4.4	30
57	Genomic insights into diverse bacterial taxa that degrade extracellular DNA in marine sediments. Nature Microbiology, 2021, 6, 885-898.	5.9	29
58	Benthic microbial communities of coastal terrestrial and ice shelf Antarctic meltwater ponds. Frontiers in Microbiology, 2015, 6, 485.	1.5	28
59	Cytochrome c unfolding on an anionic surface. Journal of Chromatography A, 1999, 863, 137-146.	1.8	26
60	Bottled aqua incognita: microbiota assembly and dissolved organic matter diversity in natural mineral waters. Microbiome, 2017, 5, 126.	4.9	26
61	Evidence that the Root of the Tree of Life Is Not within the Archaea. Molecular Biology and Evolution, 2006, 23, 1648-1651.	3.5	25
62	Distinct Microbial Assemblage Structure and Archaeal Diversity in Sediments of Arctic Thermokarst Lakes Differing in Methane Sources. Frontiers in Microbiology, 2018, 9, 1192.	1.5	25
63	An automated dye-dilution based seepage meter for the time-series measurement of submarine groundwater discharge. Limnology and Oceanography: Methods, 2011, 1, 16-28.	1.0	24
64	Genomic Insights Into the Acid Adaptation of Novel Methanotrophs Enriched From Acidic Forest Soils. Frontiers in Microbiology, 2018, 9, 1982.	1.5	23
65	Hair eruption initiates and commensal skin microbiota aggravate adverse events of anti-EGFR therapy. Science Translational Medicine, 2019, 11, .	5.8	23
66	Abiotic factors influence patterns of bacterial diversity and community composition in the Dry Valleys of Antarctica. FEMS Microbiology Ecology, 2020, 96, .	1.3	23
67	Acidobacteria are active and abundant members of diverse atmospheric H2-oxidizing communities detected in temperate soils. ISME Journal, 2021, 15, 363-376.	4.4	23
68	Genomic and kinetic analysis of novel Nitrospinae enriched by cell sorting. ISME Journal, 2021, 15, 732-745.	4.4	23
69	Microbial Ecology of Geothermal Habitats in Antarctica. , 2014, , 181-215.		22
70	Phylogenetic Delineation of the Novel Phylum Armatimonadetes (Former Candidate Division OP10) and Definition of Two Novel Candidate Divisions. Applied and Environmental Microbiology, 2013, 79, 2484-2487.	1.4	21
71	Characterisation of bacterioplankton communities in the meltwater ponds of Bratina Island, Victoria Land, Antarctica. FEMS Microbiology Ecology, 2014, 89, 451-464.	1.3	20
72	Glacial Runoff Promotes Deep Burial of Sulfur Cycling-Associated Microorganisms in Marine Sediments. Frontiers in Microbiology, 2019, 10, 2558.	1.5	16

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73	Increased microbial expression of organic nitrogen cycling genes in long-term warmed grassland soils. ISME Communications, 2021, 1, .	1.7	14
74	Draft Genome Sequence of Telmatospirillum siberiense 26-4b1, an Acidotolerant Peatland Alphaproteobacterium Potentially Involved in Sulfur Cycling. Genome Announcements, 2018, 6, .	0.8	13
75	Draft Genome Sequence of Desulfosporosinus sp. Strain Sb-LF, Isolated from an Acidic Peatland in Germany. Microbiology Resource Announcements, 2019, 8, .	0.3	8
76	Diversity decoupled from sulfur isotope fractionation in a sulfateâ€reducing microbial community. Geobiology, 2019, 17, 660-675.	1.1	7
77	Temporal, regional and geochemical drivers of microbial community variation in the melt ponds of the Ross Sea region, Antarctica. Polar Biology, 2016, 39, 267-282.	0.5	6
78	Ecological Processes Shaping Microbiomes of Extremely Low Birthweight Infants. Frontiers in Microbiology, 2022, 13, 812136.	1.5	5
79	Insights into the metabolism of the high temperature microbial community of Tramway Ridge, Mount Erebus, Antarctica. Antarctic Science, 2016, 28, 241-249.	0.5	4
80	Gilbertâ€™s Syndrome and the Gut Microbiota â€“ Insights From the Case-Control BILIHEALTH Study. Frontiers in Cellular and Infection Microbiology, 2021, 11, 701109.	1.8	4
81	Draft Genome Sequence of Desulfosporosinus fructosivorans Strain 63.6F T , Isolated from Marine Sediment in the Baltic Sea. Microbiology Resource Announcements, 2019, 8, .	0.3	1