

# Brian Palenik

## List of Publications by Citations

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99  
papers

8,983  
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47  
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94  
g-index

101  
ext. papers

10,241  
ext. citations

7.7  
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L-index

#	Paper	IF	Citations
99	The genome of the diatom <i>Thalassiosira pseudonana</i> : ecology, evolution, and metabolism. <i>Science</i> , <b>2004</b> , 306, 79-86	33.3	1586
98	The Marine Microbial Eukaryote Transcriptome Sequencing Project (MMETSP): illuminating the functional diversity of eukaryotic life in the oceans through transcriptome sequencing. <i>PLoS Biology</i> , <b>2014</b> , 12, e1001889	9.7	617
97	The genome of a motile marine <i>Synechococcus</i> . <i>Nature</i> , <b>2003</b> , 424, 1037-42	50.4	534
96	The tiny eukaryote <i>Ostreococcus</i> provides genomic insights into the paradox of plankton speciation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 7705-10	11.5	482
95	Assessing the dynamics and ecology of marine picophytoplankton: The importance of the eukaryotic component. <i>Limnology and Oceanography</i> , <b>2004</b> , 49, 168-179	4.8	346
94	Bringing the ocean into the laboratory to probe the chemical complexity of sea spray aerosol. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 7550-5	11.5	345
93	<i>Prochlorococcus marinus</i> nov. gen. nov. sp.: an oxyphototrophic marine prokaryote containing divinyl chlorophyll a and b. <i>Archives of Microbiology</i> , <b>1992</b> , 157, 297-300	3	337
92	Preparation and Chemistry of the Artificial Algal Culture Medium Aquil <b>1989</b> , 6, 443-461		316
91	Unraveling the genomic mosaic of a ubiquitous genus of marine cyanobacteria. <i>Genome Biology</i> , <b>2008</b> , 9, R90	18.3	242
90	Multiple evolutionary origins of prochlorophytes, the chlorophyll b-containing prokaryotes. <i>Nature</i> , <b>1992</b> , 355, 265-7	50.4	224
89	Genome sequence of <i>Synechococcus</i> CC9311: Insights into adaptation to a coastal environment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 13555-9	11.5	200
88	Modern proteomes contain putative imprints of ancient shifts in trace metal geochemistry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 17822-7	11.5	182
87	Chromatic adaptation in marine <i>Synechococcus</i> strains. <i>Applied and Environmental Microbiology</i> , <b>2001</b> , 67, 991-4	4.8	150
86	Niche adaptation in ocean cyanobacteria. <i>Nature</i> , <b>1998</b> , 396, 226-228	50.4	138
85	Amino acid utilization by marine phytoplankton: A novel mechanism. <i>Limnology and Oceanography</i> , <b>1990</b> , 35, 260-269	4.8	122
84	Temporal variation of <i>Synechococcus</i> clades at a coastal Pacific Ocean monitoring site. <i>ISME Journal</i> , <b>2009</b> , 3, 903-15	11.9	116
83	Broad-host-range vector system for synthetic biology and biotechnology in cyanobacteria. <i>Nucleic Acids Research</i> , <b>2014</b> , 42, e136	20.1	108

82	Phosphate stress in cultures and field populations of the dinoflagellate proroentrum minimum detected by a single-cell alkaline phosphatase assay. <i>Applied and Environmental Microbiology</i> , <b>1999</b> , 65, 3205-12	4.8	106
81	TRACE METAL REDUCTION BY PHYTOPLANKTON: THE ROLE OF PLASMALEMMA REDOX ENZYMES <sup>1,2</sup> . <i>Journal of Phycology</i> , <b>1987</b> , 23, 237-244	3	101
80	Microarray analysis of phosphate regulation in the marine cyanobacterium <i>Synechococcus</i> sp. WH8102. <i>ISME Journal</i> , <b>2009</b> , 3, 835-49	11.9	97
79	The marine cyanobacterium <i>Synechococcus</i> sp. WH7805 requires urease (urea amidohydrolase, EC 3.5.1.5) to utilize urea as a nitrogen source: molecular-genetic and biochemical analysis of the enzyme. <i>Microbiology (United Kingdom)</i> , <b>1999</b> , 145 ( Pt 2), 447-459	2.9	96
78	Diversity, function and evolution of genes coding for putative Ni-containing superoxide dismutases. <i>Environmental Microbiology</i> , <b>2008</b> , 10, 1831-43	5.2	89
77	Hydrogen peroxide production by a marine phytoplankter <sup>1</sup> . <i>Limnology and Oceanography</i> , <b>1987</b> , 32, 1365-1369	5.8	89
76	Coastal <i>Synechococcus</i> metagenome reveals major roles for horizontal gene transfer and plasmids in population diversity. <i>Environmental Microbiology</i> , <b>2009</b> , 11, 349-59	5.2	77
75	Comparison of cell-surface L-amino acid oxidases from several marine phytoplankton. <i>Marine Ecology - Progress Series</i> , <b>1990</b> , 59, 195-201	2.6	76
74	Swimming marine <i>Synechococcus</i> strains with widely different photosynthetic pigment ratios form a monophyletic group. <i>Applied and Environmental Microbiology</i> , <b>1999</b> , 65, 5247-51	4.8	73
73	Ni uptake and limitation in marine <i>Synechococcus</i> strains. <i>Applied and Environmental Microbiology</i> , <b>2008</b> , 74, 23-31	4.8	70
72	Amine oxidases of marine phytoplankton. <i>Applied and Environmental Microbiology</i> , <b>1991</b> , 57, 2440-3	4.8	68
71	Genomes and gene expression across light and productivity gradients in eastern subtropical Pacific microbial communities. <i>ISME Journal</i> , <b>2015</b> , 9, 1076-92	11.9	67
70	Genome of the halotolerant green alga <i>Picochlorum</i> sp. reveals strategies for thriving under fluctuating environmental conditions. <i>Environmental Microbiology</i> , <b>2015</b> , 17, 412-26	5.2	64
69	Merging Biological Self-Assembly with Synthetic Chemical Tailoring: The Potential for 3-D Genetically Engineered Micro/Nano-Devices (3-D GEMS). <i>International Journal of Applied Ceramic Technology</i> , <b>2005</b> , 2, 317-326	2	60
68	Variability in protist grazing and growth on different marine <i>Synechococcus</i> isolates. <i>Applied and Environmental Microbiology</i> , <b>2011</b> , 77, 3074-84	4.8	58
67	Characterization of ectoenzyme activity and phosphate-regulated proteins in the coccolithophorid <i>Emiliana huxleyi</i> . <i>Journal of Plankton Research</i> , <b>2003</b> , 25, 1215-1225	2.2	57
66	Transcriptomic and microRNAomic profiling reveals multi-faceted mechanisms to cope with phosphate stress in a dinoflagellate. <i>ISME Journal</i> , <b>2017</b> , 11, 2209-2218	11.9	56
65	Dark production of H <sub>2</sub> O <sub>2</sub> in the Sargasso Sea. <i>Limnology and Oceanography</i> , <b>1988</b> , 33, 1606-1611	4.8	56

64	Computational inference and experimental validation of the nitrogen assimilation regulatory network in cyanobacterium <i>Synechococcus</i> sp. WH 8102. <i>Nucleic Acids Research</i> , <b>2006</b> , 34, 1050-65	20.1	54
63	Coastal strains of marine <i>Synechococcus</i> species exhibit increased tolerance to copper shock and a distinctive transcriptional response relative to those of open-ocean strains. <i>Applied and Environmental Microbiology</i> , <b>2009</b> , 75, 5047-57	4.8	53
62	Potential effects of UV-B on the chemical environment of marine organisms: a review. <i>Environmental Pollution</i> , <b>1991</b> , 70, 117-30	9.3	53
61	The unexpected extremophile: Tolerance to fluctuating salinity in the green alga <i>Picochlorum</i> . <i>Algal Research</i> , <b>2016</b> , 16, 465-472	5	52
60	Detection and phylogenetic analysis of coastal bioaerosols using culture dependent and independent techniques. <i>Biogeosciences</i> , <b>2011</b> , 8, 301-309	4.6	51
59	The use of amides and other organic nitrogen sources by the phytoplankton <i>Emiliana huxleyi</i> . <i>Limnology and Oceanography</i> , <b>1997</b> , 42, 1544-1551	4.8	51
58	Gene expression induced by copper stress in the diatom <i>Thalassiosira pseudonana</i> . <i>Eukaryotic Cell</i> , <b>2006</b> , 5, 1157-68		51
57	Vitamin B1 ecophysiology of marine picoeukaryotic algae: Strain-specific differences and a new role for bacteria in vitamin cycling. <i>Limnology and Oceanography</i> , <b>2015</b> , 60, 215-228	4.8	49
56	Operon prediction by comparative genomics: an application to the <i>Synechococcus</i> sp. WH8102 genome. <i>Nucleic Acids Research</i> , <b>2004</b> , 32, 2147-57	20.1	49
55	The green ribbon: Multiscale physical control of phytoplankton productivity and community structure over a narrow continental shelf. <i>Limnology and Oceanography</i> , <b>2011</b> , 56, 611-626	4.8	47
54	Structure of compositionally simple lipopolysaccharide from marine <i>synechococcus</i> . <i>Journal of Bacteriology</i> , <b>2009</b> , 191, 5499-509	3.5	47
53	THE IDENTIFICATION AND PURIFICATION OF A CELL-SURFACE ALKALINE PHOSPHATASE FROM THE DINOFLAGELLATE PROROCENTRUM MINIMUM (DINOPHYCEAE)1. <i>Journal of Phycology</i> , <b>1997</b> , 33, 602-612	3	47
52	A STRESS-INDUCED PROTEIN ASSOCIATED WITH THE GIRDLE BAND REGION OF THE DIATOM THALASSIOSIRA PSEUDONANA (BACILLARIOPHYTA)1. <i>Journal of Phycology</i> , <b>2005</b> , 41, 577-589	3	45
51	Comparison of the seasonal variations of <i>Synechococcus</i> assemblage structures in estuarine waters and coastal waters of Hong Kong. <i>Applied and Environmental Microbiology</i> , <b>2015</b> , 81, 7644-55	4.8	44
50	CYANOBACTERIAL EVOLUTION AND PROCHLOROPHYTE DIVERSITY AS SEEN IN DNA-DEPENDENT RNA POLYMERASE GENE SEQUENCES1. <i>Journal of Phycology</i> , <b>1996</b> , 32, 638-646	3	43
49	Effect of organic compounds on cloud condensation nuclei (CCN) activity of sea spray aerosol produced by bubble bursting. <i>Atmospheric Environment</i> , <b>2011</b> , 45, 7462-7469	5.3	41
48	Role of a microcin-C-like biosynthetic gene cluster in allelopathic interactions in marine <i>Synechococcus</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 12030-5	11.5	39
47	Use of plankton-derived vitamin B1 precursors, especially thiazole-related precursor, by key marine picoeukaryotic phytoplankton. <i>ISME Journal</i> , <b>2017</b> , 11, 753-765	11.9	38

46	Nickel utilization in phytoplankton assemblages from contrasting oceanic regimes. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , <b>2010</b> , 57, 553-566	2.5	38
45	A SINGLE-CELL IMMUNOASSAY FOR PHOSPHATE STRESS IN THE DINOFLAGELLATE PROROCENTRUM MINIMUM (DINOPHYCEAE). <i>Journal of Phycology</i> , <b>2001</b> , 37, 400-410	3	37
44	PtrA is required for coordinate regulation of gene expression during phosphate stress in a marine <i>Synechococcus</i> . <i>ISME Journal</i> , <b>2010</b> , 4, 908-21	11.9	34
43	Whole-genome microarray analyses of <i>Synechococcus</i> - <i>Vibrio</i> interactions. <i>Environmental Microbiology</i> , <b>2009</b> , 11, 2698-709	5.2	34
42	A <i>Synechococcus</i> serotype is found preferentially in surface marine waters. <i>Limnology and Oceanography</i> , <b>2003</b> , 48, 1744-1755	4.8	33
41	Analysis of two marine metagenomes reveals the diversity of plasmids in oceanic environments. <i>Environmental Microbiology</i> , <b>2012</b> , 14, 453-66	5.2	32
40	Genomic island genes in a coastal marine <i>Synechococcus</i> strain confer enhanced tolerance to copper and oxidative stress. <i>ISME Journal</i> , <b>2013</b> , 7, 1139-49	11.9	32
39	CHARACTERIZATION OF A FUNCTIONAL VANADIUM-DEPENDENT BROMOPEROXIDASE IN THE MARINE CYANOBACTERIUM SYNECHOCOCCUS SP. CC9311(1). <i>Journal of Phycology</i> , <b>2011</b> , 47, 792-801	3	28
38	Phycocerythrin-containing picoplankton in the Southern California Bight. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , <b>2003</b> , 50, 2405-2422	2.3	26
37	The genomics of symbiosis: hosts keep the baby and the bath water. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2002</b> , 99, 11996-7	11.5	25
36	Exposure to bloom-like concentrations of two marine <i>Synechococcus</i> cyanobacteria (strains CC9311 and CC9902) differentially alters fish behaviour <b>2014</b> , 2, cou020		23
35	Temporal and spatial distributions of marine <i>Synechococcus</i> in the Southern California Bight assessed by hybridization to bead-arrays. <i>Marine Ecology - Progress Series</i> , <b>2011</b> , 426, 133-147	2.6	21
34	Characterization of <i>Picochlorum</i> sp. use of wastewater generated from hydrothermal liquefaction as a nitrogen source. <i>Algal Research</i> , <b>2016</b> , 13, 311-317	5	20
33	Microalgal assemblages in a poikilohaline pond. <i>Journal of Phycology</i> , <b>2014</b> , 50, 303-9	3	19
32	Fine spatial structure of genetically distinct picocyanobacterial populations across environmental gradients in the Costa Rica Dome. <i>Limnology and Oceanography</i> , <b>2014</b> , 59, 705-723	4.8	19
31	Dynamics of marine bacterial and phytoplankton populations using multiplex liquid bead array technology. <i>Environmental Microbiology</i> , <b>2010</b> , 12, 975-89	5.2	18
30	Genetic identification of a high-affinity Ni transporter and the transcriptional response to Ni deprivation in <i>Synechococcus</i> sp. strain WH8102. <i>Applied and Environmental Microbiology</i> , <b>2012</b> , 78, 7822-7832	4.8	18
29	Halomethane production by vanadium-dependent bromoperoxidase in marine <i>Synechococcus</i> . <i>Limnology and Oceanography</i> , <b>2015</b> , 60, 1823-1835	4.8	17

28	Immersed in situ microcosms: A tool for the assessment of pollution impact on phytoplankton. <i>Journal of Experimental Marine Biology and Ecology</i> , <b>2007</b> , 341, 274-281	2.1	17
27	A method for the measurement of choline and hydrogen peroxide in seawater. <i>Marine Chemistry</i> , <b>1990</b> , 30, 409-421	3.7	17
26	Learning to read the oceans genomics of marine phytoplankton. <i>Advances in Marine Biology</i> , <b>2011</b> , 60, 1-39	2.1	15
25	Polymerase evolution and organism evolution. <i>Current Opinion in Genetics and Development</i> , <b>1992</b> , 2, 931-6	4.9	15
24	Synthesis and use of fluorescent molecular probes for measuring cell-surface enzymatic oxidation of amino acids and amines in seawater. <i>Analytical Biochemistry</i> , <b>1993</b> , 211, 210-8	3.1	15
23	Selection in coastal <i>Synechococcus</i> (cyanobacteria) populations evaluated from environmental metagenomes. <i>PLoS ONE</i> , <b>2011</b> , 6, e24249	3.7	15
22	Computational inference of regulatory pathways in microbes: an application to phosphorus assimilation pathways in <i>Synechococcus</i> sp. WH8102. <i>Genome Informatics</i> , <b>2003</b> , 14, 3-13		15
21	Molecular mechanisms by which marine phytoplankton respond to their dynamic chemical environment. <i>Annual Review of Marine Science</i> , <b>2015</b> , 7, 325-40	15.4	14
20	Diversity and genome dynamics of marine cyanophages using metagenomic analyses. <i>Environmental Microbiology Reports</i> , <b>2014</b> , 6, 583-94	3.7	14
19	Temporal dynamics of eukaryotic microbial diversity at a coastal Pacific site. <i>ISME Journal</i> , <b>2018</b> , 12, 2278-2291	2.9	13
18	MOLECULAR CHARACTERIZATION OF A PHOSPHATE-REGULATED CELL-SURFACE PROTEIN FROM THE COCCOLITHOPHORID, EMILIANA HUXLEYI (PRYMNESIOPHYCEAE)1. <i>Journal of Phycology</i> , <b>2006</b> , 42, 814-821	3	13
17	Reaction of O with a diiron protein generates a mixed-valent Fe/Fe center and peroxide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 2058-2067	11.5	13
16	Impact of DNA damaging agents on genome-wide transcriptional profiles in two marine <i>Synechococcus</i> species. <i>Frontiers in Microbiology</i> , <b>2013</b> , 4, 232	5.7	12
15	Computational prediction of the osmoregulation network in <i>Synechococcus</i> sp. WH8102. <i>BMC Genomics</i> , <b>2010</b> , 11, 291	4.5	12
14	Ingestion of the unicellular cyanobacterium <i>Synechococcus</i> by the mixotrophic red tide ciliate <i>Mesodinium rubrum</i> . <i>Algae</i> , <b>2015</b> , 30, 281-290	2.4	11
13	Characterization of a modular, cell-surface protein and identification of a new gene family in the diatom <i>Thalassiosira pseudonana</i> . <i>Protist</i> , <b>2008</b> , 159, 195-207	2.5	7
12	Molecular Markers of Phytoplankton Physiological Status and Their Application at the Level of Individual Cells <b>1998</b> , 187-205		7
11	Feeding and grazing impact by the bloom-forming euglenophyte <i>Eutreptiella eupharyngea</i> on marine eubacteria and cyanobacteria. <i>Harmful Algae</i> , <b>2018</b> , 73, 98-109	5.3	6

10	Copper toxicity response influences mesotrophic <i>Synechococcus</i> community structure. <i>Environmental Microbiology</i> , <b>2017</b> , 19, 756-769	5.2	4
9	Spatial and temporal variations in <i>Synechococcus</i> microdiversity in the Southern California coastal ecosystem. <i>Environmental Microbiology</i> , <b>2021</b> , 23, 252-266	5.2	4
8	Statistical analysis of microarray data with replicated spots: a case study with <i>synechococcus</i> WH8102. <i>Comparative and Functional Genomics</i> , <b>2009</b> , 950171		3
7	Prochlorophyte Evolution and the Origin of Chloroplasts: Morphological and Molecular Evidence <b>1992</b> , 123-139		3
6	Recent Functional Genomics Studies in Marine <i>Synechococcus</i> . <i>Advances in Photosynthesis and Respiration</i> , <b>2012</b> , 103-118	1.7	2
5	MOLECULAR CHARACTERIZATION AND ANTIBODY DETECTION OF A NITROGEN-REGULATED CELL-SURFACE PROTEIN OF THE COCCOLITHOPHORE EMILIANIA HUXLEYI (PRYMNESIOPHYCEAE)(1). <i>Journal of Phycology</i> , <b>2009</b> , 45, 650-9	3	1
4	Screening and characterization of polyhydroxyalkanoate granules, and phylogenetic analysis of polyhydroxyalkanoate synthase gene PhaC in cyanobacteria. <i>Journal of Phycology</i> , <b>2021</b> , 57, 754-765	3	1
3	Relating sinking and suspended microbial communities in the California Current Ecosystem: digestion resistance and the contributions of phytoplankton taxa to export. <i>Environmental Microbiology</i> , <b>2021</b> , 23, 6734-6748	5.2	1
2	Vitamin B12 auxotrophy of the red tide dinoflagellate <i>Heterocapsa rotundata</i> and the effects of feeding on <i>Synechococcus</i> and vitamin B12 availability upon phagotrophic activity. <i>Phycologia</i> , 1-8	2.7	
1	Growth and grazing of the chlorarachniophyte <i>Bigelowiella natans</i> (Chlorarachniophyceae) on the marine cyanobacterium <i>Synechococcus</i> . <i>Phycologia</i> , 1-9	2.7	