Julie LaRoche

List of Publications by Year
in descending order

111 papers	23,794 citations	18482 62 h-index	24982 109 g-index
113 all docs	113 docs citations	113 times ranked	20764 citing authors

#	Article	IF	Citations
1	Global Iron Connections Between Desert Dust, Ocean Biogeochemistry, and Climate. Science, 2005, 308, 67-71.	12.6	2,365
2	A communal catalogue reveals Earthâ€™s multiscale microbial diversity. Nature, 2017, 551, 457-463.	27.8	1,942
3	Processes and patterns of oceanic nutrient limitation. Nature Geoscience, 2013, 6, 701-710.	12.9	1,627
4	The Phaeodactylum genome reveals the evolutionary history of diatom genomes. Nature, 2008, 456, 239-244.	27.8	1,458
5	A mesoscale phytoplankton bloom in the polar Southern Ocean stimulated by iron fertilization. Nature, 2000, 407, 695-702.	27.8	1,417
6	Redfield revisited: variability of C:N:P in marine microalgae and its biochemical basis. European Journal of Phycology, 2002, 37, 1-17.	2.0	1,179
7	Impacts of Atmospheric Anthropogenic Nitrogen on the Open Ocean. Science, 2008, 320, 893-897.	12.6	964
8	Iron and phosphorus co-limit nitrogen fixation in the eastern tropical North Atlantic. Nature, 2004, 429, 292-294.	27.8	842
9	ACCLIMATION TO SPECTRAL IRRADIANCE IN ALGAE. Journal of Phycology, 1991, 27, 8-14.	2.3	655
10	Light intensity regulation of cab gene transcription is signaled by the redox state of the plastoquinone pool.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 10237-10241.	7.1	641
11	Whole-cell response of the pennate diatom Phaeodactylum tricornutum to iron starvation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 10438-10443.	7.1	414
12	Large-scale distribution of Atlantic nitrogen fixation controlled by iron availability. Nature Geoscience, 2009, 2, 867-871.	12.9	396
13	The role of iron in phytoplankton photosynthesis, and the potential for iron-limitation of primary productivity in the sea. Photosynthesis Research, 1994, 39, 275-301.	2.9	382
14	RESPONSE OF THE PHOTOSYNTHETIC APPARATUS OF PHAEODACTYLUM TRICORNUTUM (BACILLARIOPHYCEAE) TO NITRATE, PHOSPHATE, OR IRON STARVATION1. Journal of Phycology, 1993, 29, 755-766.	2.3	374
15	Methodological Underestimation of Oceanic Nitrogen Fixation Rates. PLoS ONE, 2010, 5, e12583.	2.5	354
16	Database of diazotrophs in global ocean: abundance, biomass and nitrogen fixation rates. Earth System Science Data, 2012, 4, 47-73.	9.9	315
17	Estimating the Growth Rate of Slowly Growing Marine Bacteria from RNA Content. Applied and Environmental Microbiology, 1993, 59, 2594-2601.	3.1	292
18	Primary productivity of planet earth: biological determinants and physical constraints in terrestrial and aquatic habitats. Global Change Biology, 2001, 7, 849-882.	9.5	281

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19	Doubling of marine dinitrogen-fixation rates based on direct measurements. Nature, 2012, 488, 361-364.	27.8	273
20	Flavodoxin as an in situ marker for iron stress in phytoplankton. Nature, 1996, 382, 802-805.	27.8	269
21	Role of iron, light, and silicate in controlling algal biomass in subantarctic waters SE of New Zealand. Journal of Geophysical Research, 1999, 104, 13395-13408.	3.3	265
22	Non-photochemical fluorescence quenching and the diadinoxanthin cycle in a marine diatom. Photosynthesis Research, 1994, 41, 357-370.	2.9	244
23	The Regulation of Carbon and Nutrient Assimilation in Diatoms is Significantly Different from Green Algae. Protist, 2006, 157, 91-124.	1.5	239
24	Physiological constraints on the global distribution of <i>Trichodesmium</i> â€“ effect of temperature on diazotrophy. Biogeosciences, 2007, 4, 53-61.	3.3	230
25	Oxygen Sensitivity of Anammox and Coupled N-Cycle Processes in Oxygen Minimum Zones. PLoS ONE, 2011, 6, e29299.	2.5	228
26	Importance of the diazotrophs as a source of new nitrogen in the ocean. Journal of Sea Research, 2005, 53, 67-91.	1.6	227
27	Genome and low-iron response of an oceanic diatom adapted to chronic iron limitation. Genome Biology, 2012, 13, R66.	9.6	224
28	Independent evolution of the prochlorophyte and green plant chlorophyll a/b light-harvesting proteins. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 15244-15248.	7.1	223
29	Brown Tide blooms in Long Islandâ€™s coastal waters linked to interannual variability in groundwater flow. Global Change Biology, 1997, 3, 397-410.	9.5	214
30	Relative influence of nitrogen and phosphorous availability on phytoplankton physiology and productivity in the oligotrophic subâ€tropical North Atlantic Ocean. Limnology and Oceanography, 2008, 53, 291-305.	3.1	206
31	Abundances and Distributions of the Dominant nifH Phylotypes in the Northern Atlantic Ocean. Applied and Environmental Microbiology, 2008, 74, 1922-1931.	3.1	197
32	Production of oceanic nitrous oxide by ammonia-oxidizing archaea. Biogeosciences, 2012, 9, 2419-2429.	3.3	195
33	The small unicellular diazotrophic symbiont, UCYN-A, is a key player in the marine nitrogen cycle. Nature Microbiology, 2016, 1, 16163.	13.3	194
34	The ocean sampling day consortium. GigaScience, 2015, 4, 27.	6.4	185
35	Heterotrophic organisms dominate nitrogen fixation in the South Pacific Gyre. ISME Journal, 2012, 6, 1238-1249.	9.8	162
36	Diazotrophic Diversity and Distribution in the Tropical and Subtropical Atlantic Ocean. Applied and Environmental Microbiology, 2005, 71, 7910-7919.	3.1	161

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37	Giant Hydrogen Sulfide Plume in the Oxygen Minimum Zone off Peru Supports Chemolithoautotrophy. PLoS ONE, 2013, 8, e68661.	2.5	158
38	INDUCTION OF SPECIFIC PROTEINS IN EUKARYOTIC ALGAE GROWN UNDER IRON-, PHOSPHORUS-, OR NITROGEN-DEFICIENT CONDITIONS1. Journal of Phycology, 1993, 29, 767-777.	2.3	149
39	A reevaluation of the magnitude and impacts of anthropogenic atmospheric nitrogen inputs on the ocean. Global Biogeochemical Cycles, 2017, 31, 289-305.	4.9	146
40	Iron limits primary productivity during spring bloom development in the central North Atlantic. Global Change Biology, 2006, 12, 626-634.	9.5	134
41	Retention of dissolved iron and Fellin an iron induced Southern Ocean phytoplankton bloom. Geophysical Research Letters, 2001, 28, 3425-3428.	4.0	132
42	Facets of diazotrophy in the oxygen minimum zone waters off Peru. ISME Journal, 2014, 8, 2180-2192.	9.8	121
43	Coâ€œoccurrence of denitrification and nitrogen fixation in a meromictic lake, Lake Cadagno (Switzerland). Environmental Microbiology, 2009, 11, 1945-1958.	3.8	119
44	Physiological and Biochemical Response of the Photosynthetic Apparatus of Two Marine Diatoms to Fe Stress. Plant Physiology, 1997, 114, 615-622.	4.8	100
45	Aerobic Microbial Respiration In Oceanic Oxygen Minimum Zones. PLoS ONE, 2015, 10, e0133526.	2.5	99
46	The malleable gut microbiome of juvenile rainbow trout (Oncorhynchus mykiss): Diet-dependent shifts of bacterial community structures. PLoS ONE, 2017, 12, e0177735.	2.5	96
47	Atypical mitochondrial DNA from the deep-sea scallop Placopecten magellanicus. Proceedings of the National Academy of Sciences of the United States of America, 1987, 84, 7595-7599.	7.1	95
48	Direct and indirect costs of dinitrogen fixation in Crocosphaera watsonii WH8501 and possible implications for the nitrogen cycle. Frontiers in Microbiology, 2012, 3, 236.	3.5	95
49	The Bunsen gas solubility coefficient of ethylene as a function of temperature and salinity and its importance for nitrogen fixation assays. Limnology and Oceanography: Methods, 2004, 2, 282-288.	2.0	94
50	Influence of cell cycle phase on calcification in the coccolithophore Emiliania huxleyi. Limnology and Oceanography, 2008, 53, 506-512.	3.1	94
51	Dissolved Organic Nitrogen Hydrolysis Rates in Axenic Cultures of Aureococcus anophagefferens (Pelagophyceae): Comparison with Heterotrophic Bacteria. Applied and Environmental Microbiology, 2002, 68, 401-404.	3.1	90
52	Nutrient limitation of picophytoplankton photosynthesis and growth in the tropical North Atlantic. Limnology and Oceanography, 2008, 53, 1722-1733.	3.1	88
53	Light Intensity-Induced Changes in cab mRNA and Light Harvesting Complex II Apoprotein Levels in the Unicellular Chlorophyte Dunaliella tertiolecta. Plant Physiology, 1991, 97, 147-153.	4.8	83
54	The effect of nutrients on carbon and nitrogen fixation by the UCYN-Aâ€“haptophyte symbiosis. ISME Journal, 2015, 9, 1635-1647.	9.8	83

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55	Does Leaf Position within a Canopy Affect Acclimation of Photosynthesis to Elevated CO2?1. Plant Physiology, 1998, 117, 1037-1045.	4.8	81
56	Iron uptake and physiological response of phytoplankton during a mesoscale Southern Ocean iron enrichment. Limnology and Oceanography, 2001, 46, 1802-1808.	3.1	78
57	Nitrogen and phosphorus coâ€limitation of bacterial productivity and growth in the oligotrophic subtropical North Atlantic. Limnology and Oceanography, 2008, 53, 824-834.	3.1	77
58	In situ identification and N2 and C fixation rates of uncultivated cyanobacteria populations. Systematic and Applied Microbiology, 2013, 36, 259-271.	2.8	76
59	Co-occurrence of denitrification and nitrogen fixation in a meromictic lake, Lake Cadagno (Switzerland). Environmental Microbiology, 2009, 11, 2190-2190.	3.8	75
60	Does Long-Term Elevation of CO2 Concentration Increase Photosynthesis in Forest Floor Vegetation? (Indiana Strawberry in a Maryland Forest). Plant Physiology, 1997, 114, 337-344.	4.8	69
61	ACCUMULATION OF FERREDOXIN AND FLAVODOXIN IN A MARINE DIATOM IN RESPONSE TO FE. Journal of Phycology, 1999, 35, 510-519.	2.3	69
62	Recent transfer of an iron-regulated gene from the plastid to the nuclear genome in an oceanic diatom adapted to chronic iron limitation. BMC Genomics, 2010, 11, 718.	2.8	67
63	Diel rhythm of nitrogen and carbon metabolism in the unicellular, diazotrophic cyanobacterium Crocosphaera watsonii WH8501. Environmental Microbiology, 2010, 12, 412-421.	3.8	61
64	Ocean acidification shows negligible impacts on high-latitude bacterial community structure in coastal pelagic mesocosms. Biogeosciences, 2013, 10, 555-566.	3.3	60
65	Nitrogen fixation and growth rates of Trichodesmium IMS-101 as a function of light intensity. Marine Ecology - Progress Series, 2008, 359, 25-36.	1.9	59
66	Evidence for polyploidy in the globally important diazotrophTrichodesmium. FEMS Microbiology Letters, 2016, 363, fnw244.	1.8	57
67	Title is missing!. Photosynthesis Research, 1997, 51, 209-222.	2.9	56
68	Widespread Distribution and Expression of Gamma A (UMB), an Uncultured, Diazotrophic, Î³-Proteobacterial nifH Phylotype. PLoS ONE, 2015, 10, e0128912.	2.5	56
69	Diazotrophic bacteria respond to Saharan dust additions. Marine Ecology - Progress Series, 2012, 470, 1-14.	1.9	54
70	No stimulation of nitrogen fixation by nonâ€filamentous diazotrophs under elevated <scp>CO</scp>₂ in the South Pacific. Global Change Biology, 2012, 18, 3004-3014.	9.5	50
71	Drivers of Regional Bacterial Community Structure and Diversity in the Northwest Atlantic Ocean. Frontiers in Microbiology, 2019, 10, 281.	3.5	50
72	Distribution Analysis of Hydrogenases in Surface Waters of Marine and Freshwater Environments. PLoS ONE, 2010, 5, e13846.	2.5	48

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73	Regulation of nitrogen metabolism in the marine diazotroph Trichodesmium IMS101 under varying temperatures and atmospheric CO₂ concentrations. Environmental Microbiology, 2010, 12, 1899-1912.	3.8	47
74	Influence of 16S rRNA variable region on perceived diversity of marine microbial communities of the Northern North Atlantic. FEMS Microbiology Letters, 2019, 366, .	1.8	45
75	PHYSIOLOGICAL RESPONSES TO PHOSPHORUS LIMITATION IN BATCH AND STEADY-STATE CULTURES OF DUNALIELLA TERTIOLECTA (CHLOROPHYTA): A UNIQUE STRESS PROTEIN AS AN INDICATOR OF PHOSPHATE DEFICIENCY1. Journal of Phycology, 1996, 32, 825-838.	2.3	42
76	The role of the picoeukaryote Aureococcus anophagefferens in cycling of marine high-molecular weight dissolved organic nitrogen. Limnology and Oceanography, 2003, 48, 1825-1830.	3.1	40
77	Essential outcomes for COP26. Global Change Biology, 2022, 28, 1-3.	9.5	40
78	Iron uptake proteins in algae and the role of Iron Starvation-Induced Proteins (ISIPs). European Journal of Phycology, 2020, 55, 339-360.	2.0	38
79	Correcting a major error in assessing organic carbon pollution in natural waters. Science Advances, 2021, 7, .	10.3	37
80	Characterization of a cDNA encoding for the 28.5-kDa LHCII apoprotein from the unicellular marine chlorophyte, Dunaliella tertiolecta. Gene, 1990, 95, 165-171.	2.2	36
81	Cloning and nucleotide sequence of a cDNA encoding a major fucoxanthin-, chlorophylla/c-containing protein from the chrysophyteIsochrysis galbana: implications for evolution of thecab gene family. Plant Molecular Biology, 1994, 25, 355-368.	3.9	34
82	The Influence of pCO2 and Temperature on Gene Expression of Carbon and Nitrogen Pathways in Trichodesmium IMS101. PLoS ONE, 2010, 5, e15104.	2.5	34
83	Environmental Forcing of Nitrogen Fixation in the Eastern Tropical and Sub-Tropical North Atlantic Ocean. PLoS ONE, 2011, 6, e28989.	2.5	32
84	Sources of iron and phosphate affect the distribution of diazotrophs in the North Atlantic. Deep-Sea Research Part II: Topical Studies in Oceanography, 2015, 116, 332-341.	1.4	30
85	VERTICAL MIGRATION BY RHIZOSOLENIA SPP. (BACILLARIOPHYCEAE): IMPLICATIONS FOR FE ACQUISITION. Journal of Phycology, 2000, 36, 669-674.	2.3	28
86	A diet-change modulates the previously established bacterial gut community in juvenile brown trout (Salmo trutta). Scientific Reports, 2019, 9, 2339.	3.3	28
87	EMILIANIA HUXLEYI (PRYMNESIOPHYCEAE): NITROGEN-METABOLISM GENES AND THEIR EXPRESSION IN RESPONSE TO EXTERNAL NITROGEN SOURCES. Journal of Phycology, 2010, 46, 266-277.	2.3	26
88	Effect of elevated CO₂ on the dynamics of particle-attached and free-living bacterioplankton communities in an Arctic fjord. Biogeosciences, 2013, 10, 181-191.	3.3	26
89	Handling Temperature Bursts Reaching 464Â°C: Different Microbial Strategies in the Sisters Peak Hydrothermal Chimney. Applied and Environmental Microbiology, 2014, 80, 4585-4598.	3.1	26
90	Factors Influencing the Diversity of Iron Uptake Systems in Aquatic Microorganisms. Frontiers in Microbiology, 2012, 3, 362.	3.5	25

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91	Resolution of Conflicting Signals at the Single-Cell Level in the Regulation of Cyanobacterial Photosynthesis and Nitrogen Fixation. PLoS ONE, 2013, 8, e66060.	2.5	25
92	Molecular Biology in Studies of Ocean Processes. International Review of Cytology, 1991, , 261-303.	6.2	23
93	Physical mixing in coastal waters controls and decouples nitrification via biomass dilution. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	23
94	Harnessing the Potential of Native Microbial Communities for Bioremediation of Oil Spills in the Iberian Peninsula NW Coast. Frontiers in Microbiology, 2021, 12, 633659.	3.5	20
95	Evidence of high N₂ fixation rates in the temperate northeast Atlantic. Biogeosciences, 2019, 16, 999-1017.	3.3	18
96	Plankton classification with high-throughput submersible holographic microscopy and transfer learning. Bmc Ecology and Evolution, 2021, 21, 123.	1.6	13
97	ThepetFregion of the chloroplast genome from the diatomThalassiosira weissflogii: sequence, organization and phylogeny. European Journal of Phycology, 1998, 33, 203-211.	2.0	12
98	Geomicrobiology of the carbon, nitrogen and sulphur cycles in Powell Lake: a permanently stratified water column containing ancient seawater. Environmental Microbiology, 2019, 21, 3927-3952.	3.8	10
99	Niche partitioning by photosynthetic plankton as a driver of CO2-fixation across the oligotrophic South Pacific Subtropical Ocean. ISME Journal, 2022, 16, 465-476.	9.8	10
100	Heterogeneous viral contribution to dissolved organic matter processing in a long-term macrocosm experiment. Environment International, 2022, 158, 106950.	10.0	10
101	The petF region of the chloroplast genome from the diatom Thalassiosira weissflogii: sequence, organization and phylogeny. European Journal of Phycology, 1998, 33, 203-211.	2.0	9
102	On the Relationship Between Hydrogen Saturation in the Tropical Atlantic Ocean and Nitrogen Fixation by the Symbiotic Diazotroph UCYNâ€A. Journal of Geophysical Research: Oceans, 2018, 123, 2353-2362.	2.6	9
103	Fragment recruitment on metabolic pathways: comparative metabolic profiling of metagenomes and metatranscriptomes. Bioinformatics, 2013, 29, 790-791.	4.1	8
104	N-linked glycosylation enzymes in the diatom Thalassiosira oceanica exhibit a diel cycle in transcript abundance and favor for NXT-type sites. Scientific Reports, 2021, 11, 3227.	3.3	8
105	Highly-resolved interannual phytoplankton community dynamics of the coastal Northwest Atlantic. ISME Communications, 2022, 2, .	4.2	8
106	Influence of river discharge in the tropical and subtropical North Atlantic Ocean. Limnology and Oceanography, 2009, 54, 644-648.	3.1	7
107	Regulation of the Phytoplankton Heme b Iron Pool During the North Atlantic Spring Bloom. Frontiers in Microbiology, 2019, 10, 1566.	3.5	4
108	The Transfer of the Ferredoxin Gene From the Chloroplast to the Nuclear Genome Is Ancient Within the Paraphyletic Genus Thalassiosira. Frontiers in Microbiology, 2020, 11, 523689.	3.5	4

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109	A Canadian contribution to an integrated Atlantic ocean observing system (IAOOS). , 2014, , .		3
110	Regulation of LHC II mRNA Levels During Photoadaptation in Dunaliella tertiolecta (Chlorophyceae). , 1990, , 3151-3154.		2
111	A cDNA for Dunaliella tertiolecta Cytosol Ribosomal Protein S11. Plant Physiology, 1994, 105, 1447-1448.	4.8	1