

Emilio Marañón

List of Publications by Year in descending order

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112
papers

7,674
citations

66343

42
h-index

58581

82
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144
all docs

144
docs citations

144
times ranked

6743
citing authors

#	ARTICLE	IF	CITATIONS
1	Processes and patterns of oceanic nutrient limitation. <i>Nature Geoscience</i> , 2013, 6, 701-710.	12.9	1,627
2	Cell Size as a Key Determinant of Phytoplankton Metabolism and Community Structure. <i>Annual Review of Marine Science</i> , 2015, 7, 241-264.	11.6	358
3	Database of diazotrophs in global ocean: abundance, biomass and nitrogen fixation rates. <i>Earth System Science Data</i> , 2012, 4, 47-73.	9.9	315
4	Unimodal size scaling of phytoplankton growth and the size dependence of nutrient uptake and use. <i>Ecology Letters</i> , 2013, 16, 371-379.	6.4	297
5	Patterns of phytoplankton size structure and productivity in contrasting open-ocean environments. <i>Marine Ecology - Progress Series</i> , 2001, 216, 43-56.	1.9	224
6	Basin-scale variability of phytoplankton biomass, production and growth in the Atlantic Ocean. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2000, 47, 825-857.	1.4	193
7	Temperature, resources, and phytoplankton size structure in the ocean. <i>Limnology and Oceanography</i> , 2012, 57, 1266-1278.	3.1	170
8	Photoacclimation and nutrient-based model of light-saturated photosynthesis for quantifying oceanic primary production. <i>Marine Ecology - Progress Series</i> , 2002, 228, 103-117.	1.9	148
9	Phytoplankton size structure and primary production in a highly dynamic coastal ecosystem (RÃa de Tj ETQq1 1 0.784314 rgBT /Ove 67, 251-266.	2.1	138
10	Large-scale latitudinal distribution of <i>Trichodesmium</i> spp. in the Atlantic Ocean. <i>Journal of Plankton Research</i> , 2003, 25, 405-416.	1.8	137
11	High variability of primary production in oligotrophic waters of the Atlantic Ocean: uncoupling from phytoplankton biomass and size structure. <i>Marine Ecology - Progress Series</i> , 2003, 257, 1-11.	1.9	136
12	Degree of oligotrophy controls the response of microbial plankton to Saharan dust. <i>Limnology and Oceanography</i> , 2010, 55, 2339-2352.	3.1	134
13	Significance and mechanisms of photosynthetic production of dissolved organic carbon in a coastal eutrophic ecosystem. <i>Limnology and Oceanography</i> , 2004, 49, 1652-1666.	3.1	125
14	Nutrient limitation suppresses the temperature dependence of phytoplankton metabolic rates. <i>ISME Journal</i> , 2018, 12, 1836-1845.	9.8	122
15	Scaling of phytoplankton photosynthesis and cell size in the ocean. <i>Limnology and Oceanography</i> , 2007, 52, 2190-2198.	3.1	114
16	The significance of the episodic nature of atmospheric deposition to Low Nutrient Low Chlorophyll regions. <i>Global Biogeochemical Cycles</i> , 2014, 28, 1179-1198.	4.9	106
17	Large-sized phytoplankton sustain higher carbon-specific photosynthesis than smaller cells in a coastal eutrophic ecosystem. <i>Marine Ecology - Progress Series</i> , 2005, 297, 51-60.	1.9	98
18	Vertical distribution of phytoplankton biomass, production and growth in the Atlantic subtropical gyres. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2006, 53, 1616-1634.	1.4	95

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19	Resource Supply Overrides Temperature as a Controlling Factor of Marine Phytoplankton Growth. PLoS ONE, 2014, 9, e99312.	2.5	93
20	Dissolved and particulate primary production along a longitudinal gradient in the Mediterranean Sea. Biogeosciences, 2011, 8, 815-825.	3.3	89
21	Phytoplankton growth rates in the Atlantic subtropical gyres. Limnology and Oceanography, 2005, 50, 299-310.	3.1	84
22	Decrease in the Autotrophic-to-Heterotrophic Biomass Ratio of Picoplankton in Oligotrophic Marine Waters Due to Bottle Enclosure. Applied and Environmental Microbiology, 2011, 77, 5739-5746.	3.1	84
23	Isometric size-scaling of metabolic rate and the size abundance distribution of phytoplankton. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 1815-1823.	2.6	78
24	Photosynthetic parameters of phytoplankton from 50°N to 50°S in the Atlantic Ocean. Marine Ecology - Progress Series, 1999, 176, 191-203.	1.9	75
25	Latitudinal distribution of <i>Trichodesmium</i> spp. and N ₂ fixation in the Atlantic Ocean. Biogeosciences, 2010, 7, 3167-3176.	3.3	74
26	Primary Production, an Index of Climate Change in the Ocean: Satellite-Based Estimates over Two Decades. Remote Sensing, 2020, 12, 826.	4.0	71
27	Maximum photosynthetic efficiency of size-fractionated phytoplankton assessed by ¹⁴ C uptake and fast repetition rate fluorometry. Limnology and Oceanography, 2005, 50, 1438-1446.	3.1	70
28	Variability of chlorophyll and primary production in the Eastern North Atlantic Subtropical Gyre: potential factors affecting phytoplankton activity. Deep-Sea Research Part I: Oceanographic Research Papers, 2005, 52, 569-588.	1.4	70
29	Conventional sampling methods severely underestimate phytoplankton species richness. Journal of Plankton Research, 2014, 36, 334-343.	1.8	65
30	Photosynthesis and respiration in marine phytoplankton: Relationship with cell size, taxonomic affiliation, and growth phase. Journal of Experimental Marine Biology and Ecology, 2014, 457, 151-159.	1.5	63
31	Phytoplankton biomass and production in shelf waters off NW Spain: spatial and seasonal variability in relation to upwelling. Hydrobiologia, 1996, 341, 225-234.	2.0	57
32	Inter-specific scaling of phytoplankton production and cell size in the field. Journal of Plankton Research, 2007, 30, 157-163.	1.8	57
33	Importance of N ₂ fixation vs. nitrate eddy diffusion along a latitudinal transect in the Atlantic Ocean. Limnology and Oceanography, 2011, 56, 999-1007.	3.1	56
34	Continuity in the photosynthetic production of dissolved organic carbon from eutrophic to oligotrophic waters. Marine Ecology - Progress Series, 2005, 299, 7-17.	1.9	56
35	Review of the Main Ecological Features Affecting Benthic Dinoflagellate Blooms. Cryptogamie, Algologie, 2012, 33, 171-179.	0.9	54
36	Invariant scaling of phytoplankton abundance and cell size in contrasting marine environments. Ecology Letters, 2006, 9, 1210-1215.	6.4	53

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37	Seasonal and interannual variability of chlorophyll a and primary production in the Equatorial Atlantic: in situ and remote sensing observations. <i>Journal of Plankton Research</i> , 2004, 27, 189-197.	1.8	52
38	General patterns in the size scaling of phytoplankton abundance in coastal waters during a 10-year time series. <i>Journal of Plankton Research</i> , 2010, 32, 1-14.	1.8	50
39	Sampling the limits of species richness in marine phytoplankton communities. <i>Journal of Plankton Research</i> , 2014, 36, 1135-1139.	1.8	49
40	Isotopic composition of suspended particulate nitrogen ($\delta^{15}N_{sus}$) in surface waters of the Atlantic Ocean from 50°N to 50°S. <i>Global Biogeochemical Cycles</i> , 2002, 16, 7-17-9.	4.9	48
41	The Size Dependence of Phytoplankton Growth Rates: A Trade-Off between Nutrient Uptake and Metabolism. <i>American Naturalist</i> , 2017, 189, 170-177.	2.1	46
42	Surface distribution of dissolved trace metals in the oligotrophic ocean and their influence on phytoplankton biomass and productivity. <i>Global Biogeochemical Cycles</i> , 2015, 29, 1763-1781.	4.9	44
43	Factors controlling the community structure of picoplankton in contrasting marine environments. <i>Biogeosciences</i> , 2018, 15, 6199-6220.	3.3	44
44	Potential causes for the unequal contribution of picophytoplankton to total biomass and productivity in oligotrophic waters. <i>Marine Ecology - Progress Series</i> , 2003, 254, 101-109.	1.9	44
45	Exudation of organic carbon by marine phytoplankton: dependence on taxon and cell size. <i>Marine Ecology - Progress Series</i> , 2013, 477, 53-60.	1.9	43
46	Resource supply alone explains the variability of marine phytoplankton size structure. <i>Limnology and Oceanography</i> , 2015, 60, 1848-1854.	3.1	43
47	Role of internal waves on mixing, nutrient supply and phytoplankton community structure during spring and neap tides in the upwelling ecosystem of R�a de Vigo (NW Iberian Peninsula). <i>Limnology and Oceanography</i> , 2017, 62, 1014-1030.	3.1	43
48	Reconciling models of primary production and photoacclimation [Invited]. <i>Applied Optics</i> , 2020, 59, C100.	1.8	43
49	Differential responses of phytoplankton and heterotrophic bacteria to organic and inorganic nutrient additions in coastal waters off the NW Iberian Peninsula. <i>Marine Ecology - Progress Series</i> , 2010, 416, 17-33.	1.9	43
50	High rates of lipid biosynthesis in cultured, mesocosm and coastal populations of the cocco-lithophore <i>Emiliana huxleyi</i> . <i>Marine Ecology - Progress Series</i> , 1994, 114, 13-22.	1.9	43
51	Importance of salt fingering for new nitrogen supply in the oligotrophic ocean. <i>Nature Communications</i> , 2015, 6, 8002.	12.8	42
52	Nutrient supply controls picoplankton community structure during three contrasting seasons in the northwestern Mediterranean Sea. <i>Marine Ecology - Progress Series</i> , 2016, 543, 1-19.	1.9	41
53	Large-scale variability of planktonic net community metabolism in the Atlantic Ocean: importance of temporal changes in oligotrophic subtropical waters. <i>Marine Ecology - Progress Series</i> , 2002, 233, 21-30.	1.9	41
54	Photosynthetic electron turnover in the tropical and subtropical Atlantic Ocean. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2006, 53, 1573-1592.	1.4	40

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55	The hydrography and biology of a bloom of the coccolithophorid <i>Emiliana huxleyi</i> in the northern North Sea. <i>Journal of Sea Research</i> , 1998, 39, 255-266.	1.6	39
56	Phytoplankton size diversity and ecosystem function relationships across oceanic regions. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2018, 285, 20180621.	2.6	38
57	Latitudinal distribution of microbial plankton abundance, production, and respiration in the Equatorial Atlantic in autumn 2000. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2005, 52, 861-880.	1.4	37
58	Photosynthate allocation in a temperate sea over an annual cycle: the relationship between protein synthesis and phytoplankton physiological state. <i>Journal of Sea Research</i> , 2003, 50, 285-299.	1.6	34
59	Primary production, calcification and macromolecular synthesis in a bloom of the coccolithophore <i>Emiliana huxleyi</i> in the North Sea. <i>Marine Ecology - Progress Series</i> , 1997, 157, 61-77.	1.9	33
60	Biological N ₂ Fixation in the Upwelling Region off NW Iberia: Magnitude, Relevance, and Players. <i>Frontiers in Marine Science</i> , 2017, 4, .	2.5	31
61	Patterns of carbon and nitrogen uptake during blooms of <i>Emiliana huxleyi</i> in two Norwegian fjords. <i>Journal of Plankton Research</i> , 1996, 18, 2349-2366.	1.8	30
62	Deep maxima of phytoplankton biomass, primary production and bacterial production in the Mediterranean Sea. <i>Biogeosciences</i> , 2021, 18, 1749-1767.	3.3	30
63	Response of heterotrophic and autotrophic microbial plankton to inorganic and organic inputs along a latitudinal transect in the Atlantic Ocean. <i>Biogeosciences</i> , 2010, 7, 1701-1713.	3.3	29
64	Ocean-Atmosphere Interactions of Particles. <i>Springer Earth System Sciences</i> , 2014, , 171-246.	0.2	29
65	Marine Primary Productivity Is Driven by a Selection Effect. <i>Frontiers in Marine Science</i> , 2016, 3, .	2.5	28
66	Planktonic carbon budget in the eastern subtropical North Atlantic. <i>Aquatic Microbial Ecology</i> , 2007, 48, 261-275.	1.8	28
67	Species richness in marine phytoplankton communities is not correlated to ecosystem productivity. <i>Marine Ecology - Progress Series</i> , 2013, 488, 1-9.	1.9	28
68	Resource levels, allometric scaling of population abundance, and marine phytoplankton diversity. <i>Limnology and Oceanography</i> , 2008, 53, 312-318.	3.1	26
69	Effect of environmental forcing on the biomass, production and growth rate of size-fractionated phytoplankton in the central Atlantic Ocean. <i>Journal of Marine Systems</i> , 2011, 88, 203-213.	2.1	25
70	Intracellular carbon partitioning in the coccolithophorid <i>Emiliana huxleyi</i> . <i>Journal of Marine Systems</i> , 1996, 9, 57-66.	2.1	23
71	Size dependence of coastal phytoplankton photosynthesis under vertical mixing conditions. <i>Journal of Plankton Research</i> , 2005, 27, 473-483.	1.8	23
72	Phytoplankton carbon and chlorophyll distributions in the equatorial Pacific and Atlantic: A basin-scale comparative study. <i>Journal of Marine Systems</i> , 2013, 109-110, 138-148.	2.1	23

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73	Characterizing the surface microlayer in the Mediterranean Sea: trace metal concentrations and microbial plankton abundance. <i>Biogeosciences</i> , 2020, 17, 2349-2364.	3.3	23
74	Community N ₂ fixation and <i>Trichodesmium</i> spp. abundance along longitudinal gradients in the eastern subtropical North Atlantic. <i>ICES Journal of Marine Science</i> , 2013, 70, 223-231.	2.5	22
75	Marine nano- and microphytoplankton diversity: redrawing global patterns from sampling-standardized data. <i>Global Ecology and Biogeography</i> , 2015, 24, 527-538.	5.8	21
76	Phytoplankton carbon incorporation patterns and biochemical composition of particulate matter in the eastern North Atlantic subtropical region. <i>Journal of Plankton Research</i> , 1994, 16, 1627-1644.	1.8	20
77	Patterns of macromolecular synthesis by natural phytoplankton assemblages under changing upwelling regimes: in situ observations and microcosm experiments. <i>Journal of Experimental Marine Biology and Ecology</i> , 1995, 188, 1-28.	1.5	20
78	Optimality-based <i>Trichodesmium</i> diazotrophy in the North Atlantic subtropical gyre. <i>Journal of Plankton Research</i> , 2016, 38, 946-963.	1.8	20
79	Coccolithophore calcification is independent of carbonate chemistry in the tropical ocean. <i>Limnology and Oceanography</i> , 2016, 61, 1345-1357.	3.1	19
80	Intercomparison of Ocean Color Algorithms for Picophytoplankton Carbon in the Ocean. <i>Frontiers in Marine Science</i> , 2017, 4, .	2.5	19
81	Particulate and dissolved primary production by contrasting phytoplankton assemblages during mesocosm experiments in the Ría de Vigo (NW Spain). <i>Journal of Plankton Research</i> , 2010, 32, 1231-1240.	1.8	18
82	Temporal variability of diazotroph community composition in the upwelling region off NW Iberia. <i>Scientific Reports</i> , 2019, 9, 3737.	3.3	18
83	A global compilation of coccolithophore calcification rates. <i>Earth System Science Data</i> , 2018, 10, 1859-1876.	9.9	18
84	Distinct patterns in the size-scaling of abundance and metabolism in coastal and open-ocean phytoplankton communities. <i>Marine Ecology - Progress Series</i> , 2014, 515, 61-71.	1.9	17
85	The role of mixing in controlling resource availability and phytoplankton community composition. <i>Progress in Oceanography</i> , 2019, 178, 102181.	3.2	17
86	Size-fractionated phytoplankton biomass and production in the tropical Atlantic. <i>Scientia Marina</i> , 2010, 75, 379-389.	0.6	17
87	Phytoplankton Size Structure. , 2009, , 445-452.		16
88	Generalized size scaling of metabolic rates based on single-cell measurements with freshwater phytoplankton. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 17323-17329.	7.1	16
89	Changes in phytoplankton ecophysiology across a coastal upwelling front. <i>Journal of Plankton Research</i> , 1995, 17, 1999-2008.	1.8	15
90	Effects of the diatom- <i>Emiliana huxleyi</i> succession on photosynthesis, calcification and carbon metabolism by size-fractionated phytoplankton. <i>Hydrobiologia</i> , 1996, 317, 189-199.	2.0	15

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91	Effects of Temperature and Nutrient Supply on Resource Allocation, Photosynthetic Strategy, and Metabolic Rates of <i>Synechococcus</i> sp.. Journal of Phycology, 2020, 56, 818-829.	2.3	15
92	Impact of dust addition on the metabolism of Mediterranean plankton communities and carbon export under present and future conditions of pH and temperature. Biogeosciences, 2021, 18, 5423-5446.	3.3	14
93	Multi-model remote sensing assessment of primary production in the subtropical gyres. Journal of Marine Systems, 2019, 196, 97-106.	2.1	13
94	Large-scale meridional and zonal variability in the nitrogen isotopic composition of plankton in the Atlantic Ocean. Journal of Plankton Research, 2014, 36, 1060-1073.	1.8	11
95	Influence of atmospheric deposition on biogeochemical cycles in an oligotrophic ocean system. Biogeosciences, 2021, 18, 5699-5717.	3.3	11
96	Response of marine diatom communities to Late Quaternary abrupt climate changes. Journal of Plankton Research, 2013, 35, 12-21.	1.8	10
97	Temperature Fluctuation Attenuates the Effects of Warming in Estuarine Microbial Plankton Communities. Frontiers in Marine Science, 2021, 8, .	2.5	9
98	Effect of temperature on the unimodal size scaling of phytoplankton growth. Scientific Reports, 2021, 11, 953.	3.3	8
99	Intermediate-size cell dominance in the phytoplankton community of an eutrophic, estuarine ecosystem (Guadalhorce River, Southern Spain). Hydrobiologia, 2020, 847, 2241-2254.	2.0	7
100	Regional differences in modelled net production and shallow remineralization in the North Atlantic subtropical gyre. Biogeosciences, 2012, 9, 2831-2846.	3.3	6
101	Differential response of microbial plankton to nutrient inputs in oligotrophic versus mesotrophic waters of the North Atlantic. Marine Biology Research, 2013, 9, 358-370.	0.7	6
102	Mesopelagic respiration near the ESTOC (European Station for Time-Series in the Ocean, 15.5°W, 29.1°N) site inferred from a tracer conservation model. Deep-Sea Research Part I: Oceanographic Research Papers, 2016, 115, 63-73.	1.4	6
103	Magnitude of nitrate turbulent diffusion in contrasting marine environments. Scientific Reports, 2021, 11, 18804.	3.3	5
104	Impact of dust addition on the microbial food web under present and future conditions of pH and temperature. Biogeosciences, 2022, 19, 1303-1319.	3.3	5
105	Phytoplankton Size Structure. , 2019, , 599-605.		4
106	Temperature fluctuations in a warmer environment: impacts on microbial plankton. Faculty Reviews, 2021, 10, 9.	3.9	4
107	Inter-specific scaling of phytoplankton production and cell size in the field. Journal of Plankton Research, 2009, 31, 929-929.	1.8	3
108	Quantifying the overestimation of planktonic N ₂ fixation due to contamination of ¹⁵ N ₂ gas stocks. Journal of Plankton Research, 2019, 41, 567-570.	1.8	3

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109	Grazing Pressure Is Independent of Prey Size in a Generalist Herbivorous Protist: Insights from Experimental Temperature Gradients. <i>Microbial Ecology</i> , 2021, 81, 553-562.	2.8	3
110	Geographical and Seasonal Thermal Sensitivity of Grazing Pressure by Microzooplankton in Contrasting Marine Ecosystems. <i>Frontiers in Microbiology</i> , 2021, 12, 679863.	3.5	3
111	A Pseudo-Lagrangian Transformation to Study a Chlorophyll <i>a</i> Patch in the Ría de Vigo (NW Iberian) Tj ETQq1	1.0784314	0
112	Spatial and temporal patterns of physical environment and phytoplankton at Paraje Natural of the Guadalorce River mouth (Málaga). <i>Ecosistemas</i> , 2020, 29, .	0.4	0