Stephanie Dutkiewicz

List of Publications by Year
in descending order

84 papers	8,681 citations	53751 45 h-index	56687 83 g-index
99 all docs	99 docs citations	99 times ranked	9001 citing authors

#	Article	IF	Citations
1	Emergent Biogeography of Microbial Communities in a Model Ocean. Science, 2007, 315, 1843-1846.	6.0	723
2	Oceanic sources, sinks, and transport of atmospheric CO₂. Global Biogeochemical Cycles, 2009, 23, .	1.9	455
3	Influence of diatom diversity on the ocean biological carbon pump. Nature Geoscience, 2018, 11, 27-37.	5.4	451
4	Inverse estimates of anthropogenic CO2uptake, transport, and storage by the ocean. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	1.9	331
5	Patterns of Diversity in Marine Phytoplankton. Science, 2010, 327, 1509-1511.	6.0	294
6	A sizeâ€structured foodâ€web model for the global ocean. Limnology and Oceanography, 2012, 57, 1877-1891.	1.6	259
7	Modeling Diverse Communities of Marine Microbes. Annual Review of Marine Science, 2011, 3, 427-451.	5.1	243
8	Long-Term Climate Commitments Projected with Climateâ€"Carbon Cycle Models. Journal of Climate, 2008, 21, 2721-2751.	1.2	232
9	How well do global ocean biogeochemistry models simulate dissolved iron distributions?. Global Biogeochemical Cycles, 2016, 30, 149-174.	1.9	230
10	Global Biogeochemical Implications of Mercury Discharges from Rivers and Sediment Burial. Environmental Science & Technology, 2014, 48, 9514-9522.	4.6	229
11	Future HAB science: Directions and challenges in a changing climate. Harmful Algae, 2020, 91, 101632.	2.2	223
12	Impact of ocean acidification on the structure of future phytoplankton communities. Nature Climate Change, 2015, 5, 1002-1006.	8.1	222
13	The role of nutricline depth in regulating the ocean carbon cycle. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20344-20349.	3.3	214
14	Iron conservation by reduction of metalloenzyme inventories in the marine diazotroph <i>Crocosphaera watsonii</i>. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2184-2189.	3.3	208
15	Modeling the coupling of ocean ecology and biogeochemistry. Global Biogeochemical Cycles, 2009, 23, .	1.9	194
16	Probabilistic Forecast for Twenty-First-Century Climate Based on Uncertainties in Emissions (Without) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.2	192
17	Why marine phytoplankton calcify. Science Advances, 2016, 2, e1501822.	4.7	181
18	Global relationship between phytoplankton diversity and productivity in the ocean. Nature Communications, 2014, 5, 4299.	5.8	168

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19	Interactions of the iron and phosphorus cycles: A three-dimensional model study. Global Biogeochemical Cycles, 2005, 19, .	1.9	145
20	Iron, phosphorus, and nitrogen supply ratios define the biogeography of nitrogen fixation. Limnology and Oceanography, 2013, 58, 2059-2075.	1.6	142
21	Winners and losers: Ecological and biogeochemical changes in a warming ocean. Global Biogeochemical Cycles, 2013, 27, 463-477.	1.9	137
22	Obtaining Phytoplankton Diversity from Ocean Color: A Scientific Roadmap for Future Development. Frontiers in Marine Science, 2017, 4, .	1.2	133
23	Modelling spatial and temporal patterns in size-structured marine plankton communities: topâ€"down and bottomâ€"up controls. Journal of Plankton Research, 2014, 36, 31-47.	0.8	129
24	Capturing optically important constituents and properties in a marine biogeochemical and ecosystem model. Biogeosciences, 2015, 12, 4447-4481.	1.3	129
25	Interannual variability of phytoplankton abundances in the North Atlantic. Deep-Sea Research Part II: Topical Studies in Oceanography, 2001, 48, 2323-2344.	0.6	127
26	Reviews and syntheses: The biogeochemical cycle of silicon in the modern ocean. Biogeosciences, 2021, 18, 1269-1289.	1.3	124
27	Ocean colour signature of climate change. Nature Communications, 2019, 10, 578.	5.8	122
28	Top-down control of marine phytoplankton diversity in a global ecosystem model. Progress in Oceanography, 2012, 101, 1-13.	1.5	117
29	Growth, metabolic partitioning, and the size of microorganisms. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 495-500.	3.3	107
30	On the solution of the carbonate chemistry system in ocean biogeochemistry models. Ocean Modelling, 2006, 12, 290-301.	1.0	106
31	Dimensions of marine phytoplankton diversity. Biogeosciences, 2020, 17, 609-634.	1.3	103
32	Interconnection of nitrogen fixers and iron in the Pacific Ocean: Theory and numerical simulations. Global Biogeochemical Cycles, 2012, 26, .	1.9	101
33	Biogeochemical drivers of the fate of riverine mercury discharged to the global and Arctic oceans. Global Biogeochemical Cycles, 2015, 29, 854-864.	1.9	99
34	Meteorological modulation of the North Atlantic spring bloom. Deep-Sea Research Part II: Topical Studies in Oceanography, 2001, 49, 321-344.	0.6	98
35	Phytoplankton functional diversity increases ecosystem productivity and stability. Ecological Modelling, 2017, 361, 184-196.	1.2	98
36	Antarctic ice sheet fertilises the Southern Ocean. Biogeosciences, 2014, 11, 2635-2643.	1.3	88

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37	Biophysical Aspects of Resource Acquisition and Competition in Algal Mixotrophs. American Naturalist, 2011, 178, 98-112.	1.0	87
38	Maximal feeding with active prey-switching: A kill-the-winner functional response and its effect on global diversity and biogeography. Progress in Oceanography, 2014, 120, 93-109.	1.5	86
39	Effects of African dust deposition on phytoplankton in the western tropical Atlantic Ocean off Barbados. Global Biogeochemical Cycles, 2016, 30, 716-734.	1.9	85
40	Future phytoplankton diversity in a changing climate. Nature Communications, 2021, 12, 5372.	5.8	80
41	Dispersal, eddies, and the diversity of marine phytoplankton. Limnology & Oceanography Fluids & Environments, 2013, 3, 182-197.	1.7	65
42	The dynamical landscape of marine phytoplankton diversity. Journal of the Royal Society Interface, 2015, 12, 20150481.	1.5	62
43	Modelling the effects of chromatic adaptation on phytoplankton community structure in the oligotrophic ocean. Marine Ecology - Progress Series, 2010, 406, 1-17.	0.9	61
44	Phytoplankton diversity and community structure affected by oceanic dispersal and mesoscale turbulence. Limnology & Oceanography Fluids & Environments, 2014, 4, 67-84.	1.7	54
45	Toward a consistent modeling framework to assess multi-sectoral climate impacts. Nature Communications, 2018, 9, 660.	5.8	50
46	Understanding predicted shifts in diazotroph biogeography using resource competition theory. Biogeosciences, 2014, 11, 5445-5461.	1.3	49
47	Elucidating ecological complexity: Unsupervised learning determines global marine eco-provinces. Science Advances, 2020, 6, eaay4740.	4.7	45
48	Changes in the Arctic Ocean CO₂ sink (1996â€"2007): A regional modelâ€‰analysis. Global Biogeochemical Cycles, 2013, 27, 1108-1118.	1.9	44
49	Seasonal resource conditions favor a summertime increase in North Pacific diatomâ€"diazotroph associations. ISME Journal, 2018, 12, 1543-1557.	4.4	43
50	The ECCOâ€Darwin Dataâ€Assimilative Global Ocean Biogeochemistry Model: Estimates of Seasonal to Multidecadal Surface Ocean <i>p</i>CO₂ and Airâ€Sea CO₂ Flux. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001888.	1.3	43
51	Marine phytoplankton functional types exhibit diverse responses to thermal change. Nature Communications, 2021, 12, 6413.	5.8	42
52	Valuing climate impacts in integrated assessment models: the MIT IGSM. Climatic Change, 2013, 117, 561-573.	1.7	39
53	KÄ«lauea lava fuels phytoplankton bloom in the North Pacific Ocean. Science, 2019, 365, 1040-1044.	6.0	35
54	Biomagnification of Methylmercury in a Marine Plankton Ecosystem. Environmental Science & Technology, 2020, 54, 5446-5455.	4.6	34

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55	Microbial feedbacks optimize ocean iron availability. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4842-4849.	3.3	30
56	Exploring biogeochemical and ecological redundancy in phytoplankton communities in the global ocean. Global Change Biology, 2021, 27, 1196-1213.	4.2	30
57	Temporal and Spatial Scales of Correlation in Marine Phytoplankton Communities. Journal of Geophysical Research: Oceans, 2019, 124, 9417-9438.	1.0	29
58	Trophic interactions with heterotrophic bacteria limit the range of <i>Prochlorococcus</i>. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	28
59	Marine Biogeochemical Modeling: Recent Advances and Future Challenges. Oceanography, 2001, 14, 93-107.	0.5	27
60	The Importance of the Phytoplankton â€œMiddle Classâ€• to Ocean Net Community Production. Global Biogeochemical Cycles, 2020, 34, e2020GB006702.	1.9	26
61	Source waters for the highly productive Patagonian shelf in the southwestern Atlantic. Journal of Marine Systems, 2016, 158, 120-128.	0.9	25
62	Mesoscale modulation of airâ€sea <scp>CO</scp>₂ flux in <scp>D</scp>rake <scp>P</scp>assage. Journal of Geophysical Research: Oceans, 2016, 121, 6635-6649.	1.0	23
63	Using Greenâ€™s Functions to initialize and adjust a global, eddying ocean biogeochemistry general circulation model. Ocean Modelling, 2015, 95, 1-14.	1.0	22
64	Quantifying the drivers of oceanâ€atmosphere CO₂ fluxes. Global Biogeochemical Cycles, 2016, 30, 983-999.	1.9	22
65	Biogeochemical versus ecological consequences of modeled ocean physics. Biogeosciences, 2017, 14, 2877-2889.	1.3	22
66	Considering the Role of Adaptive Evolution in Models of the Ocean and Climate System. Journal of Advances in Modeling Earth Systems, 2019, 11, 3343-3361.	1.3	22
67	Modeling Selective Pressures on Phytoplankton in the Global Ocean. PLoS ONE, 2010, 5, e9569.	1.1	20
68	Modelling ocean-colour-derived chlorophyllÂ<i>a</i>. Biogeosciences, 2018, 15, 613-630.	1.3	17
69	On the Mixing Enhancement in a Meandering Jet Due to the Interaction with an Eddy. Journal of Physical Oceanography, 1994, 24, 2418-2423.	0.7	16
70	Dissolution of calcium carbonate: observations and model results in the subpolar North Atlantic. Biogeosciences, 2007, 4, 205-213.	1.3	16
71	Extensive hydrogen supersaturations in the western South Atlantic Ocean suggest substantial underestimation of nitrogen fixation. Journal of Geophysical Research: Oceans, 2014, 119, 4340-4350.	1.0	14
72	Impacts of climate change on methylmercury formation and bioaccumulation in the 21st century ocean. One Earth, 2021, 4, 279-288.	3.6	14

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73	Plankton community response to fronts: winners and losers. Journal of Plankton Research, 2022, 44, 241-258.	0.8	14
74	Attribution of Spaceâ€Time Variability in Globalâ€Ocean Dissolved Inorganic Carbon. Global Biogeochemical Cycles, 2022, 36, .	1.9	14
75	Abrupt shifts in 21st-century plankton communities. Science Advances, 2021, 7, eabf8593.	4.7	13
76	Constraining uncertainties of diazotroph biogeography from <i>nifH</i> gene abundance. Limnology and Oceanography, 2022, 67, 816-829.	1.6	13
77	Modeling Photosynthesis and Exudation in Subtropical Oceans. Global Biogeochemical Cycles, 2021, 35, e2021GB006941.	1.9	10
78	Moving ecological and biogeochemical transitions across the North Pacific. Limnology and Oceanography, 2021, 66, 2442-2454.	1.6	9
79	Bottom-Heavy Trophic Pyramids Impair Methylmercury Biomagnification in the Marine Plankton Ecosystems. Environmental Science & Technology, 2021, 55, 15476-15483.	4.6	8
80	Testing the Skill of a Species Distribution Model Using a 21st Century Virtual Ecosystem. Geophysical Research Letters, 2021, 48, e2021GL093455.	1.5	8
81	How important is diversity for capturing environmental-change responses in ecosystem models?. Biogeosciences, 2014, 11, 3397-3407.	1.3	7
82	Diel light cycles affect phytoplankton competition in the global ocean. Global Ecology and Biogeography, 2022, 31, 1838-1849.	2.7	4
83	Ocean moverâ€™s distance: using optimal transport for analysing oceanographic data. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	1.0	3
84	Modeling phytoplankton processes in multiple functional types. , 2022, , 245-264.		1