

# Stephanie Dutkiewicz

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Modeling phytoplankton processes in multiple functional types. , 2022, , 245-264.		1
2	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
3	Plankton community response to fronts: winners and losers. Journal of Plankton Research, 2022, 44, 241-258.	0.8	14
4	Constraining uncertainties of diazotroph biogeography from <i>nifH</i> gene abundance. Limnology and Oceanography, 2022, 67, 816-829.	1.6	13
5	Attribution of Space-Time Variability in Global Ocean Dissolved Inorganic Carbon. Global Biogeochemical Cycles, 2022, 36, .	1.9	14
6	Ocean mover'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
7	Diel light cycles affect phytoplankton competition in the global ocean. Global Ecology and Biogeography, 2022, 31, 1838-1849.	2.7	4
8	Exploring biogeochemical and ecological redundancy in phytoplankton communities in the global ocean. Global Change Biology, 2021, 27, 1196-1213.	4.2	30
9	Reviews and syntheses: The biogeochemical cycle of silicon in the modern ocean. Biogeosciences, 2021, 18, 1269-1289.	1.3	124
10	Impacts of climate change on methylmercury formation and bioaccumulation in the 21st century ocean. One Earth, 2021, 4, 279-288.	3.6	14
11	Moving ecological and biogeochemical transitions across the North Pacific. Limnology and Oceanography, 2021, 66, 2442-2454.	1.6	9
12	Modeling Photosynthesis and Exudation in Subtropical Oceans. Global Biogeochemical Cycles, 2021, 35, e2021GB006941.	1.9	10
13	Future phytoplankton diversity in a changing climate. Nature Communications, 2021, 12, 5372.	5.8	80
14	Abrupt shifts in 21st-century plankton communities. Science Advances, 2021, 7, eabf8593.	4.7	13
15	Marine phytoplankton functional types exhibit diverse responses to thermal change. Nature Communications, 2021, 12, 6413.	5.8	42
16	Bottom-Heavy Trophic Pyramids Impair Methylmercury Biomagnification in the Marine Plankton Ecosystems. Environmental Science & Technology, 2021, 55, 15476-15483.	4.6	8
17	Testing the Skill of a Species Distribution Model Using a 21st Century Virtual Ecosystem. Geophysical Research Letters, 2021, 48, e2021GL093455.	1.5	8
18	Future HAB science: Directions and challenges in a changing climate. Harmful Algae, 2020, 91, 101632.	2.2	223

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19	The Importance of the Phytoplankton "Middle Class" to Ocean Net Community Production. <i>Global Biogeochemical Cycles</i> , 2020, 34, e2020GB006702.	1.9	26
20	The ECCO-Darwin Data-Assimilative Global Ocean Biogeochemistry Model: Estimates of Seasonal to Multidecadal Surface Ocean $\text{CO}_2$ and Air-Sea $\text{CO}_2$ Flux. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001888.	1.3	43
21	Elucidating ecological complexity: Unsupervised learning determines global marine eco-provinces. <i>Science Advances</i> , 2020, 6, eaay4740.	4.7	45
22	Microbial feedbacks optimize ocean iron availability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 4842-4849.	3.3	30
23	Biomagnification of Methylmercury in a Marine Plankton Ecosystem. <i>Environmental Science &amp; Technology</i> , 2020, 54, 5446-5455.	4.6	34
24	Dimensions of marine phytoplankton diversity. <i>Biogeosciences</i> , 2020, 17, 609-634.	1.3	103
25	KÅ«laeva lava fuels phytoplankton bloom in the North Pacific Ocean. <i>Science</i> , 2019, 365, 1040-1044.	6.0	35
26	Considering the Role of Adaptive Evolution in Models of the Ocean and Climate System. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 3343-3361.	1.3	22
27	Temporal and Spatial Scales of Correlation in Marine Phytoplankton Communities. <i>Journal of Geophysical Research: Oceans</i> , 2019, 124, 9417-9438.	1.0	29
28	Ocean colour signature of climate change. <i>Nature Communications</i> , 2019, 10, 578.	5.8	122
29	Seasonal resource conditions favor a summertime increase in North Pacific diatom "diazotroph associations. <i>ISME Journal</i> , 2018, 12, 1543-1557.	4.4	43
30	Toward a consistent modeling framework to assess multi-sectoral climate impacts. <i>Nature Communications</i> , 2018, 9, 660.	5.8	50
31	Influence of diatom diversity on the ocean biological carbon pump. <i>Nature Geoscience</i> , 2018, 11, 27-37.	5.4	451
32	Modelling ocean-colour-derived chlorophyll&lt;i&gt;a&lt;/i&gt;. <i>Biogeosciences</i> , 2018, 15, 613-630.	1.3	17
33	Phytoplankton functional diversity increases ecosystem productivity and stability. <i>Ecological Modelling</i> , 2017, 361, 184-196.	1.2	98
34	Biogeochemical versus ecological consequences of modeled ocean physics. <i>Biogeosciences</i> , 2017, 14, 2877-2889.	1.3	22
35	Obtaining Phytoplankton Diversity from Ocean Color: A Scientific Roadmap for Future Development. <i>Frontiers in Marine Science</i> , 2017, 4, .	1.2	133
36	Effects of African dust deposition on phytoplankton in the western tropical Atlantic Ocean off Barbados. <i>Global Biogeochemical Cycles</i> , 2016, 30, 716-734.	1.9	85

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37	Why marine phytoplankton calcify. <i>Science Advances</i> , 2016, 2, e1501822.	4.7	181
38	How well do global ocean biogeochemistry models simulate dissolved iron distributions?. <i>Global Biogeochemical Cycles</i> , 2016, 30, 149-174.	1.9	230
39	Mesoscale modulation of air-sea CO <sub>2</sub> flux in Drake Passage. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 6635-6649.	1.0	23
40	Quantifying the drivers of ocean-atmosphere CO <sub>2</sub> fluxes. <i>Global Biogeochemical Cycles</i> , 2016, 30, 983-999.	1.9	22
41	Source waters for the highly productive Patagonian shelf in the southwestern Atlantic. <i>Journal of Marine Systems</i> , 2016, 158, 120-128.	0.9	25
42	Biogeochemical drivers of the fate of riverine mercury discharged to the global and Arctic oceans. <i>Global Biogeochemical Cycles</i> , 2015, 29, 854-864.	1.9	99
43	Capturing optically important constituents and properties in a marine biogeochemical and ecosystem model. <i>Biogeosciences</i> , 2015, 12, 4447-4481.	1.3	129
44	Using Green's Functions to initialize and adjust a global, eddying ocean biogeochemistry general circulation model. <i>Ocean Modelling</i> , 2015, 95, 1-14.	1.0	22
45	Impact of ocean acidification on the structure of future phytoplankton communities. <i>Nature Climate Change</i> , 2015, 5, 1002-1006.	8.1	222
46	The dynamical landscape of marine phytoplankton diversity. <i>Journal of the Royal Society Interface</i> , 2015, 12, 20150481.	1.5	62
47	Antarctic ice sheet fertilises the Southern Ocean. <i>Biogeosciences</i> , 2014, 11, 2635-2643.	1.3	88
48	Understanding predicted shifts in diazotroph biogeography using resource competition theory. <i>Biogeosciences</i> , 2014, 11, 5445-5461.	1.3	49
49	How important is diversity for capturing environmental-change responses in ecosystem models?. <i>Biogeosciences</i> , 2014, 11, 3397-3407.	1.3	7
50	Global relationship between phytoplankton diversity and productivity in the ocean. <i>Nature Communications</i> , 2014, 5, 4299.	5.8	168
51	Extensive hydrogen supersaturations in the western South Atlantic Ocean suggest substantial underestimation of nitrogen fixation. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 4340-4350.	1.0	14
52	Modelling spatial and temporal patterns in size-structured marine plankton communities: top-down and bottom-up controls. <i>Journal of Plankton Research</i> , 2014, 36, 31-47.	0.8	129
53	Global Biogeochemical Implications of Mercury Discharges from Rivers and Sediment Burial. <i>Environmental Science &amp; Technology</i> , 2014, 48, 9514-9522.	4.6	229
54	Maximal feeding with active prey-switching: A kill-the-winner functional response and its effect on global diversity and biogeography. <i>Progress in Oceanography</i> , 2014, 120, 93-109.	1.5	86

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55	Phytoplankton diversity and community structure affected by oceanic dispersal and mesoscale turbulence. <i>Limnology &amp; Oceanography</i> Fluids & Environments, 2014, 4, 67-84.	1.7	54
56	Valuing climate impacts in integrated assessment models: the MIT IGSM. <i>Climatic Change</i> , 2013, 117, 561-573.	1.7	39
57	Dispersal, eddies, and the diversity of marine phytoplankton. <i>Limnology &amp; Oceanography</i> Fluids & Environments, 2013, 3, 182-197.	1.7	65
58	Changes in the Arctic Ocean CO <sub>2</sub> sink (1996–2007): A regional model analysis. <i>Global Biogeochemical Cycles</i> , 2013, 27, 1108-1118.	1.9	44
59	Iron, phosphorus, and nitrogen supply ratios define the biogeography of nitrogen fixation. <i>Limnology and Oceanography</i> , 2013, 58, 2059-2075.	1.6	142
60	Winners and losers: Ecological and biogeochemical changes in a warming ocean. <i>Global Biogeochemical Cycles</i> , 2013, 27, 463-477.	1.9	137
61	Growth, metabolic partitioning, and the size of microorganisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 495-500.	3.3	107
62	A size-structured food web model for the global ocean. <i>Limnology and Oceanography</i> , 2012, 57, 1877-1891.	1.6	259
63	Interconnection of nitrogen fixers and iron in the Pacific Ocean: Theory and numerical simulations. <i>Global Biogeochemical Cycles</i> , 2012, 26, .	1.9	101
64	Top-down control of marine phytoplankton diversity in a global ecosystem model. <i>Progress in Oceanography</i> , 2012, 101, 1-13.	1.5	117
65	Modeling Diverse Communities of Marine Microbes. <i>Annual Review of Marine Science</i> , 2011, 3, 427-451.	5.1	243
66	Biophysical Aspects of Resource Acquisition and Competition in Algal Mixotrophs. <i>American Naturalist</i> , 2011, 178, 98-112.	1.0	87
67	Iron conservation by reduction of metalloenzyme inventories in the marine diazotroph <i>Crocospaera watsonii</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 2184-2189.	3.3	208
68	Modeling Selective Pressures on Phytoplankton in the Global Ocean. <i>PLoS ONE</i> , 2010, 5, e9569.	1.1	20
69	Patterns of Diversity in Marine Phytoplankton. <i>Science</i> , 2010, 327, 1509-1511.	6.0	294
70	Modelling the effects of chromatic adaptation on phytoplankton community structure in the oligotrophic ocean. <i>Marine Ecology - Progress Series</i> , 2010, 406, 1-17.	0.9	61
71	Probabilistic Forecast for Twenty-First-Century Climate Based on Uncertainties in Emissions (Without) Tj ETQq1 1 0,784314 rgBT /Over	1.2	192
72	Oceanic sources, sinks, and transport of atmospheric CO <sub>2</sub> . <i>Global Biogeochemical Cycles</i> , 2009, 23, .	1.9	455

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73	Modeling the coupling of ocean ecology and biogeochemistry. <i>Global Biogeochemical Cycles</i> , 2009, 23, .	1.9	194
74	The role of nutricline depth in regulating the ocean carbon cycle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 20344-20349.	3.3	214
75	Long-Term Climate Commitments Projected with Climate's Carbon Cycle Models. <i>Journal of Climate</i> , 2008, 21, 2721-2751.	1.2	232
76	Emergent Biogeography of Microbial Communities in a Model Ocean. <i>Science</i> , 2007, 315, 1843-1846.	6.0	723
77	Dissolution of calcium carbonate: observations and model results in the subpolar North Atlantic. <i>Biogeosciences</i> , 2007, 4, 205-213.	1.3	16
78	Inverse estimates of anthropogenic CO <sub>2</sub> uptake, transport, and storage by the ocean. <i>Global Biogeochemical Cycles</i> , 2006, 20, n/a-n/a.	1.9	331
79	On the solution of the carbonate chemistry system in ocean biogeochemistry models. <i>Ocean Modelling</i> , 2006, 12, 290-301.	1.0	106
80	Interactions of the iron and phosphorus cycles: A three-dimensional model study. <i>Global Biogeochemical Cycles</i> , 2005, 19, .	1.9	145
81	Interannual variability of phytoplankton abundances in the North Atlantic. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2001, 48, 2323-2344.	0.6	127
82	Meteorological modulation of the North Atlantic spring bloom. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2001, 49, 321-344.	0.6	98
83	Marine Biogeochemical Modeling: Recent Advances and Future Challenges. <i>Oceanography</i> , 2001, 14, 93-107.	0.5	27
84	On the Mixing Enhancement in a Meandering Jet Due to the Interaction with an Eddy. <i>Journal of Physical Oceanography</i> , 1994, 24, 2418-2423.	0.7	16