Christopher A Klausmeier

List of Publications by Year
in descending order

75 papers	9,547 citations	76196 40 h-index	79541 73 g-index
80 all docs	80 docs citations	80 times ranked	9195 citing authors

#	Article	IF	Citations
1	Trait-Based Community Ecology of Phytoplankton. Annual Review of Ecology, Evolution, and Systematics, 2008, 39, 615-639.	3.8	943
2	Optimal nitrogen-to-phosphorus stoichiometry of phytoplankton. Nature, 2004, 429, 171-174.	13.7	767
3	Regular and Irregular Patterns in Semiarid Vegetation. Science, 1999, 284, 1826-1828.	6.0	728
4	The role of functional traits and tradeâ€offs in structuring phytoplankton communities: scaling from cellular to ecosystem level. Ecology Letters, 2007, 10, 1170-1181.	3.0	699
5	A Global Pattern of Thermal Adaptation in Marine Phytoplankton. Science, 2012, 338, 1085-1088.	6.0	638
6	Allometric scaling and taxonomic variation in nutrient utilization traits and maximum growth rate of phytoplankton. Limnology and Oceanography, 2012, 57, 554-566.	1.6	328
7	Phytoplankton growth and stoichiometry under multiple nutrient limitation. Limnology and Oceanography, 2004, 49, 1463-1470.	1.6	263
8	Eco-evolutionary responses of biodiversity to climate change. Nature Climate Change, 2012, 2, 747-751.	8.1	262
9	The evolutionary ecology of metacommunities. Trends in Ecology and Evolution, 2008, 23, 311-317.	4.2	253
10	Linking traits to species diversity and community structure in phytoplankton. Hydrobiologia, 2010, 653, 15-28.	1.0	249
11	Algal games: The vertical distribution of phytoplankton in poorly mixed water columns. Limnology and Oceanography, 2001, 46, 1998-2007.	1.6	243
12	Contrasting size evolution in marine and freshwater diatoms. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 2665-2670.	3.3	207
13	Competition of Phytoplankton under Fluctuating Light. American Naturalist, 2001, 157, 170-187.	1.0	194
14	Temperatureâ€“nutrient interactions exacerbate sensitivity to warming in phytoplankton. Global Change Biology, 2017, 23, 3269-3280.	4.2	188
15	Large-scale biodiversity patterns in freshwater phytoplankton. Ecology, 2011, 92, 2096-2107.	1.5	182
16	Phytoplankton growth and the interaction of light and temperature: A synthesis at the species and community level. Limnology and Oceanography, 2016, 61, 1232-1244.	1.6	173
17	Functional traits explain phytoplankton community structure and seasonal dynamics in a marine ecosystem. Ecology Letters, 2013, 16, 56-63.	3.0	149
18	Global biogeochemical impacts of phytoplankton: a traitâ€based perspective. Journal of Ecology, 2015, 103, 1384-1396.	1.9	149

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19	Spatial Heterogeneity and Irreversible Vegetation Change in Semiarid Grazing Systems. American Naturalist, 2002, 159, 209-218.	1.0	144
20	Phytoplankton stoichiometry. Ecological Research, 2008, 23, 479-485.	0.7	143
21	Light and growth in marine phytoplankton: allometric, taxonomic, and environmental variation. Limnology and Oceanography, 2015, 60, 540-552.	1.6	140
22	Ecoâ€evolutionary differences in light utilization traits and distributions of freshwater phytoplankton. Limnology and Oceanography, 2011, 56, 589-598.	1.6	136
23	Phytoplankton niches, traits and eco-evolutionary responses to global environmental change. Marine Ecology - Progress Series, 2012, 470, 235-248.	0.9	129
24	Evidence for a three-way trade-off between nitrogen and phosphorus competitive abilities and cell size in phytoplankton. Ecology, 2011, 92, 2085-2095.	1.5	121
25	Floquet theory: a useful tool for understanding nonequilibrium dynamics. Theoretical Ecology, 2008, 1, 153-161.	0.4	117
26	Microbial resource utilization traits and trade-offs: implications for community structure, functioning, and biogeochemical impacts at present and in the future. Frontiers in Microbiology, 2015, 06, 254.	1.5	109
27	A conceptual framework for ecosystem stoichiometry: balancing resource supply and demand. Oikos, 2005, 109, 40-51.	1.2	98
28	Ecological Context Influences Epidemic Size and Parasite-Driven Evolution. Science, 2012, 335, 1636-1638.	6.0	98
29	The vertical distribution of phytoplankton in stratified water columns. Journal of Theoretical Biology, 2011, 269, 16-30.	0.8	97
30	Phytoplankton Competition for Nutrients and Light in a Stratified Water Column. American Naturalist, 2009, 174, 190-203.	1.0	91
31	A model of flexible uptake of two essential resources. Journal of Theoretical Biology, 2007, 246, 278-289.	0.8	81
32	Phytoplankton nutrient competition under dynamic light regimes. Limnology and Oceanography, 2004, 49, 1457-1462.	1.6	80
33	Functional traits explain phytoplankton responses to environmental gradients across lakes of the United States. Ecology, 2013, 94, 1626-1635.	1.5	77
34	Rapid thermal adaptation in a marine diatom reveals constraints and tradeâ€offs. Global Change Biology, 2018, 24, 4554-4565.	4.2	74
35	Nitrogen limitation inhibits marine diatom adaptation to high temperatures. Ecology Letters, 2019, 22, 1860-1869.	3.0	64
36	Coexistence in a variable environment: Eco-evolutionary perspectives. Journal of Theoretical Biology, 2013, 339, 14-25.	0.8	62

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37	Evolutionarily stable communities: a framework for understanding the role of trait evolution in the maintenance of diversity. Ecology Letters, 2018, 21, 1853-1868.	3.0	57
38	Predicting the response of the deep-ocean microbiome to geochemical perturbations by hydrothermal vents. ISME Journal, 2015, 9, 1857-1869.	4.4	52
39	When Predators Help Prey Adapt and Persist in a Changing Environment. American Naturalist, 2017, 190, 83-98.	1.0	52
40	Ecological Specialization and Trade Affect the Outcome of Negotiations in Mutualism. American Naturalist, 2012, 179, 567-581.	1.0	50
41	Species packing in ecoâ€evolutionary models of seasonally fluctuating environments. Ecology Letters, 2017, 20, 1158-1168.	3.0	49
42	From competition to facilitation and mutualism: a general theory of the niche. Ecological Monographs, 2021, 91, e01458.	2.4	49
43	The influence of balanced and imbalanced resource supply on biodiversityâ€“functioning relationship across ecosystems. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150283.	1.8	43
44	Habitat destruction and extinction in competitive and mutualistic metacommunities. Ecology Letters, 2001, 4, 57-63.	3.0	41
45	Regional neutrality evolves through local adaptive niche evolution. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2612-2617.	3.3	41
46	Optimal Cell Size for Resource Uptake in Fluids: A New Facet of Resource Competition. American Naturalist, 2008, 171, 59-70.	1.0	40
47	Successional state dynamics: A novel approach to modeling nonequilibrium foodweb dynamics. Journal of Theoretical Biology, 2010, 262, 584-595.	0.8	39
48	The role of phytoplankton diversity in the emergent oceanic stoichiometry. Journal of Plankton Research, 2016, 38, 1021-1035.	0.8	39
49	TRANSIENT DYNAMICS OF PELAGIC PRODUCERâ€“GRAZER SYSTEMS IN A GRADIENT OF NUTRIENTS AND MIXING DEPTHS. Ecology, 2008, 89, 1272-1286.	1.5	38
50	Successional Dynamics in the Seasonally Forced Diamond Food Web. American Naturalist, 2012, 180, 1-16.	1.0	35
51	Evolutionary stability of coexistence due to the storage effect in a two-season model. Theoretical Ecology, 2017, 10, 91-103.	0.4	33
52	Nutrient utilization traits of phytoplankton. Ecology, 2015, 96, 2311-2311.	1.5	32
53	Trait-based ecological and eco-evolutionary theory. , 2020, , 161-194.		30
54	Local interactions and self-organized spatial patterns stabilize microbial cross-feeding against cheaters. Journal of the Royal Society Interface, 2018, 15, 20170822.	1.5	29

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55	A Three-Way Trade-Off Maintains Functional Diversity under Variable Resource Supply. American Naturalist, 2013, 182, 786-800.	1.0	26
56	An evolutionary tipping point in a changing environment. Evolution; International Journal of Organic Evolution, 2017, 71, 2930-2941.	1.1	26
57	Ecological limits to evolutionary rescue. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190453.	1.8	23
58	Geometrical envelopes: Extending graphical contemporary niche theory to communities and eco-evolutionary dynamics. Journal of Theoretical Biology, 2016, 407, 271-289.	0.8	22
59	Microbial cross-feeding promotes multiple stable states and species coexistence, but also susceptibility to cheaters. Journal of Theoretical Biology, 2019, 465, 63-77.	0.8	22
60	Determining Selection across Heterogeneous Landscapes: A Perturbation-Based Method and Its Application to Modeling Evolution in Space. American Naturalist, 2017, 189, 381-395.	1.0	19
61	How spatial structure and neighbor uncertainty promote mutualists and weaken black queen effects. Journal of Theoretical Biology, 2018, 446, 33-60.	0.8	18
62	Linking traits to species diversity and community structure in phytoplankton. , 2010, , 15-28.		18
63	Experimental test of phytoplankton competition for nutrients and light in poorly mixed water columns. Ecological Monographs, 2012, 82, 239-256.	2.4	17
64	Global stability in a chemostat with multiple nutrients. Journal of Mathematical Biology, 2006, 52, 419-438.	0.8	16
65	Periodically forced foodâ€chain dynamics: model predictions and experimental validation. Ecology, 2009, 90, 3099-3107.	1.5	16
66	Control in mutualisms: Combined implications of partner choice and bargaining roles. Journal of Theoretical Biology, 2010, 267, 535-545.	0.8	15
67	Competition and coexistence between a syntrophic consortium and a metabolic generalist, and its effect on productivity. Journal of Theoretical Biology, 2016, 404, 348-360.	0.8	13
68	A simple model for analyzing climatic effects on terrestrial carbon and nitrogen dynamics: An arctic case study. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	1.9	11
69	Transient dynamics and the destabilizing effects of prey heterogeneity. Ecology, 2012, 93, 632-644.	1.5	11
70	Climate Changeâ€“Driven Regime Shifts in a Planktonic Food Web. American Naturalist, 2021, 197, 281-295.	1.0	11
71	Plant Strategies along Resource Gradients. American Naturalist, 2018, 192, 360-378.	1.0	10
72	Resource Competition and Host Feedbacks Underlie Regime Shifts in Gut Microbiota. American Naturalist, 2021, 198, 1-12.	1.0	9

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73	How the resource supply distribution structures competitive communities. Journal of Theoretical Biology, 2022, 538, 111054.	0.8	8
74	How leaking and overproducing resources affect the evolutionary robustness of cooperative cross-feeding. Journal of Theoretical Biology, 2018, 454, 278-291.	0.8	4
75	Analysis of a model of two parallel food chains. Discrete and Continuous Dynamical Systems - Series B, 2009, 12, 337-359.	0.5	3