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	How the resource supply distribution structures competitive communities. Journal of Theoretical Biology, 2022, 538, 111054.	0.8	8
2	Climate Changeâ€“Driven Regime Shifts in a Planktonic Food Web. American Naturalist, 2021, 197, 281-295.	1.0	11
3	From competition to facilitation and mutualism: a general theory of the niche. Ecological Monographs, 2021, 91, e01458.	2.4	49
4	Resource Competition and Host Feedbacks Underlie Regime Shifts in Gut Microbiota. American Naturalist, 2021, 198, 1-12.	1.0	9
5	Ecological limits to evolutionary rescue. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190453.	1.8	23
6	Trait-based ecological and eco-evolutionary theory. , 2020, , 161-194.		30
7	Nitrogen limitation inhibits marine diatom adaptation to high temperatures. Ecology Letters, 2019, 22, 1860-1869.	3.0	64
8	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
9	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
10	How spatial structure and neighbor uncertainty promote mutualists and weaken black queen effects. Journal of Theoretical Biology, 2018, 446, 33-60.	0.8	18
11	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
12	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
13	Rapid thermal adaptation in a marine diatom reveals constraints and tradeâ€offs. Global Change Biology, 2018, 24, 4554-4565.	4.2	74
14	Plant Strategies along Resource Gradients. American Naturalist, 2018, 192, 360-378.	1.0	10
15	How leaking and overproducing resources affect the evolutionary robustness of cooperative cross-feeding. Journal of Theoretical Biology, 2018, 454, 278-291.	0.8	4
16	Temperatureâ€“nutrient interactions exacerbate sensitivity to warming in phytoplankton. Global Change Biology, 2017, 23, 3269-3280.	4.2	188
17	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
18	When Predators Help Prey Adapt and Persist in a Changing Environment. American Naturalist, 2017, 190, 83-98.	1.0	52

#	Article	IF	Citations
19	An evolutionary tipping point in a changing environment. Evolution; International Journal of Organic Evolution, 2017, 71, 2930-2941.	1.1	26
20	Species packing in ecoâ€evolutionary models of seasonally fluctuating environments. Ecology Letters, 2017, 20, 1158-1168.	3.0	49
21	Evolutionary stability of coexistence due to the storage effect in a two-season model. Theoretical Ecology, 2017, 10, 91-103.	0.4	33
22	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
23	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
24	Geometrical envelopes: Extending graphical contemporary niche theory to communities and eco-evolutionary dynamics. Journal of Theoretical Biology, 2016, 407, 271-289.	0.8	22
25	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
26	The role of phytoplankton diversity in the emergent oceanic stoichiometry. Journal of Plankton Research, 2016, 38, 1021-1035.	0.8	39
27	Global biogeochemical impacts of phytoplankton: a traitâ€based perspective. Journal of Ecology, 2015, 103, 1384-1396.	1.9	149
28	Predicting the response of the deep-ocean microbiome to geochemical perturbations by hydrothermal vents. ISME Journal, 2015, 9, 1857-1869.	4.4	52
29	Light and growth in marine phytoplankton: allometric, taxonomic, and environmental variation. Limnology and Oceanography, 2015, 60, 540-552.	1.6	140
30	Nutrient utilization traits of phytoplankton. Ecology, 2015, 96, 2311-2311.	1.5	32
31	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
32	Functional traits explain phytoplankton community structure and seasonal dynamics in a marine ecosystem. Ecology Letters, 2013, 16, 56-63.	3.0	149
33	Functional traits explain phytoplankton responses to environmental gradients across lakes of the United States. Ecology, 2013, 94, 1626-1635.	1.5	77
34	Coexistence in a variable environment: Eco-evolutionary perspectives. Journal of Theoretical Biology, 2013, 339, 14-25.	0.8	62
35	A Three-Way Trade-Off Maintains Functional Diversity under Variable Resource Supply. American Naturalist, 2013, 182, 786-800.	1.0	26
36	Experimental test of phytoplankton competition for nutrients and light in poorly mixed water columns. Ecological Monographs, 2012, 82, 239-256.	2.4	17

#	Article	IF	Citations
37	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
38	Ecological Specialization and Trade Affect the Outcome of Negotiations in Mutualism. American Naturalist, 2012, 179, 567-581.	1.0	50
39	Successional Dynamics in the Seasonally Forced Diamond Food Web. American Naturalist, 2012, 180, 1-16.	1.0	35
40	A Global Pattern of Thermal Adaptation in Marine Phytoplankton. Science, 2012, 338, 1085-1088.	6.0	638
41	Ecological Context Influences Epidemic Size and Parasite-Driven Evolution. Science, 2012, 335, 1636-1638.	6.0	98
42	Transient dynamics and the destabilizing effects of prey heterogeneity. Ecology, 2012, 93, 632-644.	1.5	11
43	Eco-evolutionary responses of biodiversity to climate change. Nature Climate Change, 2012, 2, 747-751.	8.1	262
44	Phytoplankton niches, traits and eco-evolutionary responses to global environmental change. Marine Ecology - Progress Series, 2012, 470, 235-248.	0.9	129
45	Large-scale biodiversity patterns in freshwater phytoplankton. Ecology, 2011, 92, 2096-2107.	1.5	182
46	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
47	Ecoâ€evolutionary differences in light utilization traits and distributions of freshwater phytoplankton. Limnology and Oceanography, 2011, 56, 589-598.	1.6	136
48	The vertical distribution of phytoplankton in stratified water columns. Journal of Theoretical Biology, 2011, 269, 16-30.	0.8	97
49	Control in mutualisms: Combined implications of partner choice and bargaining roles. Journal of Theoretical Biology, 2010, 267, 535-545.	0.8	15
50	Linking traits to species diversity and community structure in phytoplankton. Hydrobiologia, 2010, 653, 15-28.	1.0	249
51	Successional state dynamics: A novel approach to modeling nonequilibrium foodweb dynamics. Journal of Theoretical Biology, 2010, 262, 584-595.	0.8	39
52	Linking traits to species diversity and community structure in phytoplankton. , 2010, , 15-28.		18
53	Periodically forced foodâ€chain dynamics: model predictions and experimental validation. Ecology, 2009, 90, 3099-3107.	1.5	16
54	Phytoplankton Competition for Nutrients and Light in a Stratified Water Column. American Naturalist, 2009, 174, 190-203.	1.0	91

#	Article	IF	Citations
55	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
56	Analysis of a model of two parallel food chains. Discrete and Continuous Dynamical Systems - Series B, 2009, 12, 337-359.	0.5	3
57	Phytoplankton stoichiometry. Ecological Research, 2008, 23, 479-485.	0.7	143
58	Floquet theory: a useful tool for understanding nonequilibrium dynamics. Theoretical Ecology, 2008, 1, 153-161.	0.4	117
59	Trait-Based Community Ecology of Phytoplankton. Annual Review of Ecology, Evolution, and Systematics, 2008, 39, 615-639.	3.8	943
60	The evolutionary ecology of metacommunities. Trends in Ecology and Evolution, 2008, 23, 311-317.	4.2	253
61	Optimal Cell Size for Resource Uptake in Fluids: A New Facet of Resource Competition. American Naturalist, 2008, 171, 59-70.	1.0	40
62	TRANSIENT DYNAMICS OF PELAGIC PRODUCERâ€“GRAZER SYSTEMS IN A GRADIENT OF NUTRIENTS AND MIXING DEPTHS. Ecology, 2008, 89, 1272-1286.	1.5	38
63	A model of flexible uptake of two essential resources. Journal of Theoretical Biology, 2007, 246, 278-289.	0.8	81
64	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
65	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
66	Global stability in a chemostat with multiple nutrients. Journal of Mathematical Biology, 2006, 52, 419-438.	0.8	16
67	A conceptual framework for ecosystem stoichiometry: balancing resource supply and demand. Oikos, 2005, 109, 40-51.	1.2	98
68	Optimal nitrogen-to-phosphorus stoichiometry of phytoplankton. Nature, 2004, 429, 171-174.	13.7	767
69	Phytoplankton nutrient competition under dynamic light regimes. Limnology and Oceanography, 2004, 49, 1457-1462.	1.6	80
70	Phytoplankton growth and stoichiometry under multiple nutrient limitation. Limnology and Oceanography, 2004, 49, 1463-1470.	1.6	263
71	Spatial Heterogeneity and Irreversible Vegetation Change in Semiarid Grazing Systems. American Naturalist, 2002, 159, 209-218.	1.0	144
72	Algal games: The vertical distribution of phytoplankton in poorly mixed water columns. Limnology and Oceanography, 2001, 46, 1998-2007.	1.6	243

#	Article	IF	Citations
73	Habitat destruction and extinction in competitive and mutualistic metacommunities. Ecology Letters, 2001, 4, 57-63.	3.0	41
74	Competition of Phytoplankton under Fluctuating Light. American Naturalist, 2001, 157, 170-187.	1.0	194
75	Regular and Irregular Patterns in Semiarid Vegetation. Science, 1999, 284, 1826-1828.	6.0	728