Edward A Laws

List of Publications by Year
in descending order

91 papers	6,487 citations	117625 34 h-index	69250 77 g-index
93 all docs	93 docs citations	93 times ranked	5528 citing authors

#	Article	IF	Citations
1	Temperature effects on export production in the open ocean. Global Biogeochemical Cycles, 2000, 14, 1231-1246.	4.9	731
2	considerations and experimental results. Geochimica Et Cosmochimica Acta, 1995, 59, 1131-1138.	3.9	679
3	Effect of Phytoplankton Cell Geometry on Carbon Isotopic Fractionation. Geochimica Et Cosmochimica Acta, 1998, 62, 69-77.	3.9	594
4	Nutrientâ€•and lightâ€limited growth of Thalassiosira fluviatilis in continuous culture, with implications for phytoplankton growth in the ocean1. Limnology and Oceanography, 1980, 25, 457-473.	3.1	453
5	Photosynthetic quotients, new production and net community production in the open ocean. Deep-sea Research Part A, Oceanographic Research Papers, 1991, 38, 143-167.	1.5	451
6	The 2007 water crisis in Wuxi, China: Analysis of the origin. Journal of Hazardous Materials, 2010, 182, 130-135.	12.4	256
7	Pelagic functional group modeling: Progress, challenges and prospects. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 459-512.	1.4	200
8	Warming and eutrophication combine to restructure diatoms and dinoflagellates. Water Research, 2018, 128, 206-216.	11.3	181
9	Effect of growth rate and CO₂ concentration on carbon isotopic fractionation by the marine diatom Phaeodactylum tricornutum. Limnology and Oceanography, 1997, 42, 1552-1560.	3.1	170
10	Metabolic balance of the open sea. Nature, 2003, 426, 32-32.	27.8	149
11	Simple equations to estimate ratios of new or export production to total production from satelliteâ€derived estimates of sea surface temperature and primary production. Limnology and Oceanography: Methods, 2011, 9, 593-601.	2.0	139
12	Phytoplankton and Their Role in Primary, New, and Export Production. , 2003, , 99-121.		124
13	The Importance of Respiration Losses in Controlling the Size Distribution of Marine Phytoplankton. Ecology, 1975, 56, 419-426.	3.2	114
14	STUDIES OF CARBON AND NITROGEN METABOLISM BY THREE MARINE PHYTOPLANKTON SPECIES IN NITRATE-LIMITED CONTINUOUS CULTURE1 ,2. Journal of Phycology, 1978, 14, 406-416.	2.3	104
15	Carbon cycling in primary production bottle incubations: inferences from grazing experiments and photosynthetic studies using and in the Arabian Sea. Deep-Sea Research Part II: Topical Studies in Oceanography, 2000, 47, 1339-1352.	1.4	101
16	13C discrimination patterns in oceanic phytoplankton: likely influence of CO2 concentrating mechanisms, and implications for palaeoreconstructions. Functional Plant Biology, 2002, 29, 323.	2.1	95
17	Bicarbonate uptake by Southern Ocean phytoplankton. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	88
18	Light-limited growth of two strains of the marine diatom Phaeodactylum tricornutum Bohlin: Chemical composition, carbon partitioning and the diel periodicity of physiological processes. Journal of Experimental Marine Biology and Ecology, 1983, 68, 209-227.	1.5	85

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19	Evaluation of In Situ Phytoplankton Growth Rates: A Synthesis of Data from Varied Approaches. Annual Review of Marine Science, 2013, 5, 247-268.	11.6	83
20	Large-scale management of common reed, Phragmites australis, for paper production: A case study from the Liaohe Delta, China. Ecological Engineering, 2014, 73, 760-769.	3.6	81
21	ATP and chlorophyll a as estimators of phytoplankton carbon biomass1. Limnology and Oceanography, 1981, 26, 944-956.	3.1	72
22	Is there a difference of temperature sensitivity between marine phytoplankton and heterotrophs?. Limnology and Oceanography, 2017, 62, 806-817.	3.1	66
23	Primary production in the deep blue sea. Deep-sea Research Part A, Oceanographic Research Papers, 1990, 37, 715-730.	1.5	65
24	A test of the assumptions and predictions of recent microalgal growth models with the marine phytoplankter Pavlova lutheri. Limnology and Oceanography, 1990, 35, 583-596.	3.1	63
25	GROWTH RATE VARIATION IN THE N:P REQUIREMENT RATIO OF PHYTOPLANKTON¹. Journal of Phycology, 1985, 21, 323-329.	2.3	63
26	Controls on the molecular distribution and carbon isotopic composition of alkenones in certain haptophyte algae. Geochemistry, Geophysics, Geosystems, 2001, 2, n/a-n/a.	2.5	62
27	A microalgal growth model. Limnology and Oceanography, 1990, 35, 597-608.	3.1	61
28	Coupling carbon and energy fluxes in the North Pacific Subtropical Gyre. Nature Communications, 2019, 10, 1895.	12.8	60
29	Realized niches explain spatial gradients in seasonal abundance of phytoplankton groups in the South China Sea. Progress in Oceanography, 2018, 162, 223-239.	3.2	57
30	Phytoplankton population dynamics and the fate of production during the spring bloom in Auke Bay, Alaska1. Limnology and Oceanography, 1988, 33, 57-67.	3.1	52
31	Carbon isotopic fractionation by the marine diatom Phaeodactylum tricornutum under nutrient- and light-limited growth conditions. Geochimica Et Cosmochimica Acta, 2006, 70, 5323-5335.	3.9	51
32	Optimization of microalgal production in a shallow outdoor flume. Biotechnology and Bioengineering, 1988, 32, 140-147.	3.3	45
33	NUTRIENT-LIMITED GROWTH OF AUREOUMBRA LAGUNENSIS (PELAGOPHYCEAE), WITH IMPLICATIONS FOR ITS CAPABILITY TO OUTGROW OTHER PHYTOPLANKTON SPECIES IN PHOSPHATE-LIMITED ENVIRONMENTS. Journal of Phycology, 2001, 37, 500-508.	2.3	44
34	VARIABILITY IN RATIOS OF PHYTOPLANKTON CARBON AND RNA TO ATP AND CHLOROPHYLL A IN BATCH AND CONTINUOUS CULTURES1,2. Journal of Phycology, 1983, 19, 439-445.	2.3	42
35	Does the 14C method estimate net photosynthesis? Implications from batch and continuous culture studies of marine phytoplankton. Deep-Sea Research Part I: Oceanographic Research Papers, 2013, 82, 1-9.	1.4	39
36	Nutrient Dynamics in the Upwelling Area of Changjiang (Yangtze River) Estuary. Journal of Coastal Research, 2009, 253, 569-580.	0.3	33

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37	Sources of inorganic carbon for marine microalgal photosynthesis: A reassessment of Î´¹³C data from batch culture studies of Thalassiosira pseudonana and Emiliania huxleyi. Limnology and Oceanography, 1998, 43, 136-142.	3.1	31
38	Export flux and stability as regulators of community composition in pelagic marine biological communities: Implications for regime shifts. Progress in Oceanography, 2004, 60, 343-354.	3.2	30
39	The relationship between primary production and export production in the ocean: Effects of time lags and temporal variability. Deep-Sea Research Part I: Oceanographic Research Papers, 2019, 148, 100-107.	1.4	30
40	Photosynthetic parameters in the northern <scp>S</scp>outh <scp>C</scp>hina <scp>S</scp>ea in relation to phytoplankton community structure. Journal of Geophysical Research: Oceans, 2015, 120, 4187-4204.	2.6	29
41	Effects of increasing atmospheric CO2 on the marine phytoplankton and bacterial metabolism during a bloom: A coastal mesocosm study. Science of the Total Environment, 2018, 633, 618-629.	8.0	29
42	Anticyclonic Eddy Edge Effects on Phytoplankton Communities and Particle Export in the Northern South China Sea. Journal of Geophysical Research: Oceans, 2018, 123, 7632-7650.	2.6	27
43	Estimating the compensation irradiance in the ocean: The importance of accounting for non-photosynthetic uptake of inorganic carbon. Deep-Sea Research Part I: Oceanographic Research Papers, 2014, 93, 35-40.	1.4	25
44	PHOSPHATEâ€ŁIMITED GROWTH OF PAVLOVA LUTHERI (PRYMNESIOPHYCEAE) IN CONTINUOUS CULTURE: DETERMINATION OF GROWTHâ€ŘATEâ€ŁIMITING SUBSTRATE CONCENTRATIONS WITH A SENSITIVE BIOASSAY PROCEDURE¹. Journal of Phycology, 2011, 47, 1089-1097.	2.3	24
45	Diel Patterns of Variable Fluorescence and Carbon Fixation of Picocyanobacteria Prochlorococcus-Dominated Phytoplankton in the South China Sea Basin. Frontiers in Microbiology, 2018, 9, 1589.	3.5	24
46	A new method for estimating growth rates of alkenone-producing haptophytes. Limnology and Oceanography: Methods, 2006, 4, 114-129.	2.0	23
47	Trace element remobilization following the resuspension of sediments under controlled redox conditions: City Park Lake, Baton Rouge, LA. Applied Geochemistry, 2013, 28, 91-99.	3.0	23
48	Phosphate-limited growth and uptake kinetics of the marine prasinophyte Tetraselmis suecica (Kylin) Butcher. Aquaculture, 2011, 322-323, 117-121.	3.5	21
49	Sources of inorganic carbon for photosynthesis in a strain of Phaeodactylum tricornutum. Limnology and Oceanography, 2002, 47, 1192-1197.	3.1	20
50	Stimulation of Heterotrophic and Autotrophic Metabolism in the Mixing Zone of the Kuroshio Current and Northern South China Sea: Implications for Export Production. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 2645-2661.	3.0	20
51	Uncoupling of Seasonal Variations Between Phytoplankton Chlorophyll a and Production in the East China Sea. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 2400-2415.	3.0	20
52	Responses of marine phytoplankton communities to environmental changes: New insights from a niche classification scheme. Water Research, 2019, 166, 115070.	11.3	20
53	Nutrient dynamics and their interaction with phytoplankton growth during autumn in Liaodong Bay, China. Continental Shelf Research, 2019, 186, 34-47.	1.8	17
54	Phytoplankton community patterns in the Taiwan Strait match the characteristics of their realized niches. Progress in Oceanography, 2020, 186, 102366.	3.2	17

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55	Phosphateâ€limited growth of the marine diatom Thalassiosira weissflogii (Bacillariophyceae): evidence of nonâ€monod growth kinetics¹. Journal of Phycology, 2013, 49, 241-247.	2.3	16
56	Estimating microzooplankton grazing halfâ€saturation constants from dilution experiments with nonlinear feeding kinetics. Limnology and Oceanography, 2014, 59, 639-644.	3.1	16
57	Sequestration of metals through association with pyrite in subtidal sediments of the Nanpaishui Estuary on the Western Bank of the Bohai Sea, China. Marine Pollution Bulletin, 2011, 62, 934-941.	5.0	14
58	Plankton community responses to pulsed upwelling events in the southern Taiwan Strait. ICES Journal of Marine Science, 2019, 76, 2374-2388.	2.5	14
59	DNA:ATP RATIOS IN MARINE MICROALGAE AND BACTERIA: IMPLICATIONS FOR GROWTH RATE ESTIMATES BASED ON RATES OF DNA SYNTHESIS1. Journal of Phycology, 1995, 31, 215-223.	2.3	13
60	Steady-state bioassay approach applied to phosphorus-limited continuous cultures: A growth study of the marine chlorophyte Dunaliella salina. Limnology and Oceanography, 2013, 58, 314-324.	3.1	13
61	Interactive Effects of CO 2 , Temperature, Irradiance, and Nutrient Limitation on the Growth and Physiology of the Marine Diatom Thalassiosira pseudonana (Coscinodiscophyceae). Journal of Phycology, 2020, 56, 1614-1624.	2.3	13
62	Chemotactically-Active Feed Additive for Prawns (Macrobrachium rosenbergii). Progressive Fish-Culturist, 1985, 47, 59-61.	0.6	12
63	Pyritization of trace metals in estuarine sediments and the controlling factors: a case in Jiaojiang Estuary of Zhejiang Province, China. Environmental Earth Sciences, 2010, 61, 973-982.	2.7	12
64	Does the 14C method estimate net photosynthesis? II. Implications from cyclostat studies of marine phytoplankton. Deep-Sea Research Part I: Oceanographic Research Papers, 2014, 91, 94-100.	1.4	12
65	Effects of Polyculture and Manure Fertilization on Water Quality and Heterotrophic Productivity in Macrobrachium rosenbergii Ponds. Transactions of the American Fisheries Society, 1985, 114, 826-836.	1.4	11
66	Time-course development of 14C specificactivity of chlorophyll a, carbon, and proteins in algal cultures. Limnology and Oceanography, 1993, 38, 96-111.	3.1	10
67	Trace metals in porewater of surface sediments and their bioavailability in Jiaozhou Bay, Qingdao, China. Environmental Earth Sciences, 2011, 64, 1641-1646.	2.7	10
68	Mercury and selenium levels, and Se:Hg molar ratios in freshwater fish from South Louisiana. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2019, 54, 238-245.	1.7	10
69	Spatial and temporal variations of satellite-derived phytoplankton size classes using a three-component model bridged with temperature in Marginal Seas of the Western Pacific Ocean. Progress in Oceanography, 2021, 191, 102511.	3.2	10
70	Effects of biosynthesis and physiology on relative abundances and isotopic compositions of alkenones. Geochemistry, Geophysics, Geosystems, 2001, 2, n/a-n/a.	2.5	9
71	Nutrients and Phytoplankton in a Shallow, Hypereutrophic Urban Lake: Prospects for Restoration. Water (Switzerland), 2017, 9, 431.	2.7	9
72	Study on chemical hydrography, chlorophyll-a and primary productivity in Liaodong Bay, China. Estuarine, Coastal and Shelf Science, 2018, 202, 103-113.	2.1	8

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73	Quasiâ€Antiphase Diel Patterns of Abundance and Cell Size/Biomass of Picophytoplankton in the Oligotrophic Ocean. Geophysical Research Letters, 2022, 49, .	4.0	8
74	Wetlands in China: Evolution, Carbon Sequestrations and Services, Threats, and Preservation/Restoration. Water (Switzerland), 2022, 14, 1152.	2.7	8
75	Toxic Elements in Aquatic Sediments: Distinguishing Natural Variability from Anthropogenic Effects. Water, Air, and Soil Pollution, 2009, 203, 179-191.	2.4	7
76	Temperature Dependence of Freshwater Phytoplankton Growth Rates and Zooplankton Grazing Rates. Water (Switzerland), 2021, 13, 1591.	2.7	7
77	Food web structure and planktonic predator-prey relationships in two eutrophic European lakes: Stability constraints on carbon fluxes. Limnology and Oceanography, 2008, 53, 760-772.	3.1	6
78	Quantitative Environmental Benchmarking in a Hydrologically Driven Hawaiian Coastal System. Marine Technology Society Journal, 2011, 45, 88-100.	0.4	6
79	Carbon burial records during the last ~40,000 years in sediments of the Liaohe Delta wetland, China. Estuarine, Coastal and Shelf Science, 2019, 226, 106291.	2.1	6
80	Responses of phytoplankton communities to the effect of internal waveâ€powered upwelling. Limnology and Oceanography, 2021, 66, 1083-1098.	3.1	6
81	Patchiness of phytoplankton and primary production in Liaodong Bay, China. PLoS ONE, 2017, 12, e0173067.	2.5	5
82	Elevated pCO2 changes community structure and function by affecting phytoplankton group-specific mortality. Marine Pollution Bulletin, 2022, 175, 113362.	5.0	5
83	Interactive effects of <scp>CO₂</scp>, temperature, irradiance, and nutrient limitation on the growth and physiology of the marine cyanobacterium Synechococcus (Cyanophyceae). Journal of Phycology, 2022, 58, 703-718.	2.3	5
84	A new design of measuring marine primary productivity to support eco-geological survey. China Geology, 2019, 2, 112-113.	1.0	4
85	Examining the size-specific photosynthesis-irradiance parameters and relationship with phytoplankton types in a subtropical marginal sea. Ecological Indicators, 2021, 130, 108094.	6.3	4
86	In memory of Thomas Turpin Bannister (1930â€“2018). Photosynthesis Research, 2018, 138, 129-138.	2.9	3
87	Negative Feedback by Vegetation on Soil Organic Matter Decomposition in a Coastal Wetland. Wetlands, 2020, 40, 2785-2797.	1.5	3
88	Blackfordia virginica blooms shift the trophic structure to smaller size plankton in subtropical shallow waters. Marine Pollution Bulletin, 2021, 163, 111990.	5.0	3
89	Holocene vegetation history and responses to climate and sea-level change in the Liaohe Delta, northeast China. Catena, 2022, 217, 106438.	5.0	3
90	Temperature Affects the Time Required to Discern the Relationship between Primary Production and Export Production in the Ocean. Water (Switzerland), 2021, 13, 3085.	2.7	2

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91	The 1987â€“1989 Phytoplankton Bloom in Kaneohe Bay. Water (Switzerland), 2018, 10, 747.	2.7	1