

# John J. Cullen

## List of Publications by Year in descending order

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102  
papers

10,212  
citations

41258

49  
h-index

45213

90  
g-index

103  
all docs

103  
docs citations

103  
times ranked

7112  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mesoscale Iron Enrichment Experiments 1993-2005: Synthesis and Future Directions. <i>Science</i> , 2007, 315, 612-617.	6.0	1,250
2	The Deep Chlorophyll Maximum: Comparing Vertical Profiles of Chlorophyll <i>a</i> . <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1982, 39, 791-803.	0.7	767
3	Autotrophic Picoplankton in the Tropical Ocean. <i>Science</i> , 1983, 219, 292-295.	6.0	486
4	FLUORESCENCE-BASED MAXIMAL QUANTUM YIELD FOR PSII AS A DIAGNOSTIC OF NUTRIENT STRESS. <i>Journal of Phycology</i> , 2001, 37, 517-529.	1.0	422
5	Biological Weighting Function for the Inhibition of Phytoplankton Photosynthesis by Ultraviolet Radiation. <i>Science</i> , 1992, 258, 646-650.	6.0	415
6	Assessment of the relationships between dominant cell size in natural phytoplankton communities and the spectral shape of the absorption coefficient. <i>Limnology and Oceanography</i> , 2002, 47, 404-417.	1.6	397
7	Subsurface Chlorophyll Maximum Layers: Enduring Enigma or Mystery Solved?. <i>Annual Review of Marine Science</i> , 2015, 7, 207-239.	5.1	298
8	The kinetics of algal photoadaptation in the context of vertical mixing. <i>Journal of Plankton Research</i> , 1988, 10, 1039-1063.	0.8	264
9	Interactive effects of ozone depletion and vertical mixing on photosynthesis of Antarctic phytoplankton. <i>Nature</i> , 1998, 392, 585-589.	13.7	255
10	Inhibition of photosynthesis by ultraviolet radiation as a function of dose and dosage rate: Results for a marine diatom. <i>Marine Biology</i> , 1991, 111, 183-190.	0.7	215
11	Ultraviolet radiation, ozone depletion, and marine photosynthesis. <i>Photosynthesis Research</i> , 1994, 39, 303-320.	1.6	197
12	Photosynthetic characteristics and estimated growth rates indicate grazing is the proximate control of primary production in the equatorial Pacific. <i>Journal of Geophysical Research</i> , 1992, 97, 639-654.	3.3	194
13	Hypotheses to explain high-nutrient conditions in the open sea. <i>Limnology and Oceanography</i> , 1991, 36, 1578-1599.	1.6	184
14	CARBON UPTAKE IN A MARINE DIATOM DURING ACUTE EXPOSURE TO ULTRAVIOLET B RADIATION: RELATIVE IMPORTANCE OF DAMAGE AND REPAIR1. <i>Journal of Phycology</i> , 1994, 30, 183-192.	1.0	181
15	Phytoplankton and thermal structure in the upper ocean: Consequences of nonuniformity in chlorophyll profile. <i>Journal of Geophysical Research</i> , 1983, 88, 2565-2570.	3.3	180
16	Effects of nitrate on the diurnal vertical migration, carbon to nitrogen ratio, and the photosynthetic capacity of the dinoflagellate <i>Gymnodinium splendens</i> . <i>Marine Biology</i> , 1981, 62, 81-89.	0.7	178
17	OCEANS: Dis-Crediting Ocean Fertilization. <i>Science</i> , 2001, 294, 309-310.	6.0	162
18	Vertical migration, nutrition and toxicity in the dinoflagellate <i>Alexandrium tamarense</i> . <i>Marine Ecology - Progress Series</i> , 1997, 148, 201-216.	0.9	158

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19	On models of growth and photosynthesis in phytoplankton. Deep-sea Research Part A, Oceanographic Research Papers, 1990, 37, 667-683.	1.6	155
20	Primary production by suspended and benthic microalgae in a turbid estuary: time-scales of variability in San Antonio Bay, Texas. Marine Ecology - Progress Series, 1996, 145, 245-268.	0.9	138
21	Turbulent motions may control phytoplankton photosynthesis in the upper ocean. Nature, 1984, 311, 49-50.	13.7	131
22	THE BLANK CAN MAKE A BIG DIFFERENCE IN OCEANOGRAPHIC MEASUREMENTS. Limnology and Oceanography Bulletin, 2003, 12, 29-35.	0.2	125
23	Optical detection and assessment of algal blooms. Limnology and Oceanography, 1997, 42, 1223-1239.	1.6	123
24	Inhibition of marine photosynthesis by ultraviolet radiation: Variable sensitivity of phytoplankton in the Weddell-Scotia Confluence during the austral spring. Limnology and Oceanography, 1998, 43, 433-448.	1.6	120
25	Sunlight and water transparency: cornerstones in coral research. Journal of Experimental Marine Biology and Ecology, 2002, 268, 171-183.	0.7	111
26	Ammonium distribution in southern California coastal waters and its role in the growth of phytoplankton. Limnology and Oceanography, 1979, 24, 495-509.	1.6	109
27	Biological weighting of ultraviolet (280-400 nm) induced mortality in marine zooplankton and fish. I. Atlantic cod ( <i>Gadus morhua</i> ) eggs. Marine Biology, 1999, 134, 269-284.	0.7	105
28	Nutrient Limitation of Marine Photosynthesis. , 1992, , 69-88.		100
29	Impact of ultraviolet radiation on marine crustacean zooplankton and ichthyoplankton: a synthesis of results from the estuary and Gulf of St. Lawrence, Canada. Marine Ecology - Progress Series, 2000, 199, 293-311.	0.9	90
30	Fine-scale vertical resolution of chlorophyll and photosynthetic parameters in shallow-water benthos. Marine Ecology - Progress Series, 1995, 122, 227-237.	0.9	87
31	New algorithms for MODIS sun-induced chlorophyll fluorescence and a comparison with present data products. Limnology and Oceanography: Methods, 2005, 3, 108-130.	1.0	86
32	Biological processes and optical measurements near the sea surface: Some issues relevant to remote sensing. Journal of Geophysical Research, 1995, 100, 13255.	3.3	85
33	Iron, nitrogen and phosphorus in the ocean. Nature, 1999, 402, 372-372.	13.7	81
34	Ocean fertilization: time to move on. Nature, 2009, 461, 347-348.	13.7	78
35	Changes in buoyancy and chemical composition during growth of a coastal marine diatom: ecological and biogeochemical consequences. Marine Ecology - Progress Series, 1995, 128, 77-90.	0.9	78
36	Continuous measurement of the DCMU-induced fluorescence response of natural phytoplankton populations. Marine Biology, 1979, 53, 13-20.	0.7	76

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37	Status of the iron hypothesis after the Open Ocean Enrichment Experiment1. <i>Limnology and Oceanography</i> , 1995, 40, 1336-1343.	1.6	76
38	New Approaches and Technologies for Observing Harmful Algal Blooms. <i>Oceanography</i> , 2005, 18, 210-227.	0.5	76
39	Biological weighting of ultraviolet (280-400 nm) induced mortality in marine zooplankton and fish. II. <i>Calanus finmarchicus</i> (Copepoda) eggs. <i>Marine Biology</i> , 1999, 134, 285-293.	0.7	72
40	Deriving optical metrics of coastal phytoplankton biomass from ocean colour. <i>Remote Sensing of Environment</i> , 2012, 119, 72-83.	4.6	72
41	A semi-analytical model of the influence of phytoplankton community structure on the relationship between light attenuation and ocean color. <i>Journal of Geophysical Research</i> , 1999, 104, 1559-1578.	3.3	71
42	Vertical motion of the thermocline, nitracline and chlorophyll maximum layers in relation to currents on the Southern California Shelf. <i>Journal of Marine Research</i> , 1983, 41, 239-262.	0.3	61
43	From genes to ecosystems: the ocean's new frontier. <i>Frontiers in Ecology and the Environment</i> , 2004, 2, 457-468.	1.9	59
44	Effects of UV radiation on phytoplankton. <i>Reviews of Geophysics</i> , 1995, 33, 1211-1223.	9.0	58
45	Damage to DNA in Bacterioplankton: A Model of Damage by Ultraviolet Radiation and its Repair as Influenced by Vertical Mixing. <i>Photochemistry and Photobiology</i> , 2000, 72, 62.	1.3	58
46	CYANOBACTERIAL BUOYANCY REGULATION: THE PARADOXICAL ROLES OF CARBON1. <i>Journal of Phycology</i> , 1996, 32, 47-53.	1.0	57
47	The spectral effects of clouds on solar irradiance. <i>Journal of Geophysical Research</i> , 1998, 103, 31017-31031.	3.3	55
48	On the use of the serial dilution culture method to enumerate viable phytoplankton in natural communities of plankton subjected to ballast water treatment. <i>Journal of Applied Phycology</i> , 2016, 28, 279-298.	1.5	55
49	Ultraviolet (280-400 nm) induced DNA Damage in the Eggs and Larvae of <i>Calanus finmarchicus</i> G. (Copepoda) and Atlantic Cod ( <i>Gadus morhua</i> ). <i>Photochemistry and Photobiology</i> , 2003, 77, 397.	1.3	54
50	Effects of ultraviolet radiation on the photosynthesis of phytoplankton in the vicinity of McMurdo Station, Antarctica. <i>Antarctic Research Series</i> , 1994, , 125-142.	0.2	52
51	Ocean Fertilization: Science, Policy, and Commerce. <i>Oceanography</i> , 2009, 22, 236-261.	0.5	50
52	Using Cultures to Investigate the Physiological Ecology of Microalgae. , 2005, , 287-326.		50
53	Biological Weighting Functions for Describing the Effects of Ultraviolet Radiation on Aquatic Systems. , 1997, , 97-118.		50
54	Predicting and verifying the intended and unintended consequences of large-scale ocean iron fertilization. <i>Marine Ecology - Progress Series</i> , 2008, 364, 295-301.	0.9	50

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55	Detection of <i>Karenia mikimotoi</i> by spectral absorption signatures. <i>Journal of Plankton Research</i> , 2003, 25, 1237-1249.	0.8	49
56	Production of methyl halides by <i>Prochlorococcus</i> and <i>Synechococcus</i> . <i>Global Biogeochemical Cycles</i> , 2010, 24, .	1.9	46
57	PHYSIOLOGICAL AND OPTICAL PROPERTIES OF RHIZOSOLENIA FORMOSA (BACILLARIOPHYCEAE) IN THE CONTEXT OF OPEN-OCEAN VERTICAL MIGRATION1. <i>Journal of Phycology</i> , 1996, 32, 741-757.	1.0	44
58	Resolving the Impacts and Feedback of Ocean Optics on Upper Ocean Ecology. <i>Oceanography</i> , 2001, 14, 30-53.	0.5	44
59	Phytoplankton in the surface and chlorophyll maximum off southern California in August, 1978. <i>Journal of Plankton Research</i> , 1982, 4, 665-694.	0.8	43
60	Bio-optical inferences from chlorophyll a fluorescence: What kind of fluorescence is measured in flow cytometry?. <i>Limnology and Oceanography</i> , 1989, 34, 1739-1748.	1.6	42
61	Subsurface patch of a dinoflagellate ( <i>Ceratium tripos</i> ) off Southern California: Patch length, growth rate, associated vertically migrating species. <i>Marine Biology</i> , 1984, 80, 207-214.	0.7	41
62	Description of and results from a new surface microlayer sampling device. <i>Deep-sea Research Part A, Oceanographic Research Papers</i> , 1988, 35, 1205-1213.	1.6	41
63	Classification of phytoplankton cells as live or dead using the vital stains fluorescein diacetate and 5-ethylfluorescein diacetate. <i>Journal of Phycology</i> , 2016, 52, 572-589.	1.0	41
64	New production in the warm waters of the tropical Pacific Ocean. <i>Journal of Geophysical Research</i> , 1994, 99, 14255.	3.3	40
65	Potential contributions of vertically migrating <i>Rhizosolenia</i> to nutrient cycling and new production in the open ocean. <i>Journal of Plankton Research</i> , 1998, 20, 219-241.	0.8	39
66	Impacts of Solar UVR on Aquatic Microorganisms*. <i>Photochemistry and Photobiology</i> , 1997, 65, 252-269.	1.3	37
67	Retrieval of phytoplankton biomass from simultaneous inversion of reflectance, the diffuse attenuation coefficient, and Sun-induced fluorescence in coastal waters. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	36
68	Distributions of pigments and primary production in a Gulf Stream meander. <i>Journal of Geophysical Research</i> , 1993, 98, 14545-14560.	3.3	32
69	Primary production estimates from recordings of solar-stimulated fluorescence in the equatorial Pacific at 150°W. <i>Journal of Geophysical Research</i> , 1992, 97, 627-638.	3.3	27
70	Inferred influence of nutrient availability on the relationship between Sun-induced chlorophyll fluorescence and incident irradiance in the Bering Sea. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	26
71	Spectral model of depth-integrated water column photosynthesis and its inhibition by ultraviolet radiation. <i>Global Biogeochemical Cycles</i> , 2012, 26, .	1.9	26
72	Yellow water in La Jolla Bay, California, July 1980. I. A bloom of the dinoflagellate, <i>Gymnodinium flavum</i> Kofoid & Swezy. <i>Journal of Experimental Marine Biology and Ecology</i> , 1982, 63, 67-80.	0.7	25

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73	Modeling the effects of ultraviolet radiation on embryos of <i>Calanus finmarchicus</i> and Atlantic cod ( <i>Gadus morhua</i> ) in a mixing environment. <i>Limnology and Oceanography</i> , 2000, 45, 1797-1806.	1.6	25
74	Irradiance-induced variability in light scatter from marine phytoplankton in culture. <i>Journal of Plankton Research</i> , 1993, 15, 737-759.	0.8	23
75	Effect of UV on Short-Term Photosynthesis of Natural Phytoplankton. <i>Photochemistry and Photobiology</i> , 1997, 65, 264-266.	1.3	23
76	The Biological Basis for Ballast Water Performance Standards: "Viable/Non-Viable" or "Live/Dead". <i>Environmental Science &amp; Technology</i> , 2018, 52, 8075-8086.	4.6	22
77	Some changes in the optical properties of marine phytoplankton in response to high light intensity. , 1990, , .		21
78	Coupling 3-D Eulerian bio-physics (ROMS) with individual-based shellfish ecophysiology (SHELL-E): A hybrid model for carrying capacity and environmental impacts of bivalve aquaculture. <i>Ecological Modelling</i> , 2014, 273, 63-78.	1.2	19
79	Towards a General Description of Phytoplankton Growth for Biogeochemical Models. , 1993, , 153-176.		19
80	Autofluorescence And Other Optical Properties As Tools In Biological Oceanography. <i>Proceedings of SPIE</i> , 1988, , .	0.8	18
81	Curvature in models of the photosynthesis-irradiance response. <i>Journal of Phycology</i> , 2014, 50, 341-355.	1.0	18
82	Mapping coastal optical and biogeochemical variability using an autonomous underwater vehicle and a new bio-optical inversion algorithm. <i>Limnology and Oceanography: Methods</i> , 2004, 2, 262-281.	1.0	17
83	Enumerating viable phytoplankton using a culture-based Most Probable Number assay following ultraviolet-C treatment. <i>Journal of Applied Phycology</i> , 2018, 30, 1073-1094.	1.5	17
84	Methyl iodide in the NW Atlantic: Spatial and seasonal variation. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	16
85	Spectrally weighted transparency in models of water-column photosynthesis and photoinhibition by ultraviolet radiation. <i>Marine Ecology - Progress Series</i> , 2004, 269, 101-110.	0.9	16
86	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
87	Spectral analysis: a caveat. <i>Deep-sea Research Part A, Oceanographic Research Papers</i> , 1981, 28, 93-97.	1.6	13
88	Patterns and Prediction in Microbial Oceanography. <i>Oceanography</i> , 2007, 20, 34-46.	0.5	13
89	Phytoplankton growth and light absorption as regulated by light, temperature, and nutrients. <i>Polar Research</i> , 1991, 10, 163-172.	1.6	12
90	Quantitative framework for validating two methodologies that are used to enumerate viable organisms for type approval of ballast water management systems. <i>Science of the Total Environment</i> , 2018, 627, 1602-1626.	3.9	12

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91	Monitoring the Spring Bloom in an Ice Covered Fjord with the Land/Ocean Biogeochemical Observatory (LOBO). , 2007, , .		10
92	<title>Relationship between near-surface chlorophyll and solar-stimulated fluorescence: biological effects</title>. , 1997, 2963, 272.		8
93	Phytoplankton growth and light absorption as regulated by light, temperature, and nutrients. Polar Research, 1991, 10, 163-172.	1.6	6
94	<title>Observing biologically induced optical variability in coastal waters</title>. , 1994, , .		6
95	The Marine Environmental Prediction System (MEPS) - A New Generation of Moored Ocean Observing Systems. , 0, , .		5
96	Inter-laboratory validation of the serial dilution culture“most probable number method for enumerating viable phytoplankton. Journal of Applied Phycology, 2019, 31, 491-503.	1.5	3
97	<title>Influence of phytoplankton size structure on the spectral attenuation coefficient in the upper ocean</title>. , 1997, 2963, 380.		2
98	Ultraviolet (280-400 nm)-induced DNA Damage in the Eggs and Larvae of Calanus finmarchicus G. (Copepoda) and Atlantic Cod (Gadus morhua) ¶. Photochemistry and Photobiology, 2003, 77, 397-404.	1.3	2
99	Calibration of a coupled biological“physical model for prediction in a coastal inlet. Continental Shelf Research, 2011, 31, 1713-1727.	0.9	2
100	The case for using the Most Probable Number (MPN) method in ballast water management system type approval testing. , 2017, , .		1
101	Damage to DNA in Bacterioplankton: A Model of Damage by Ultraviolet Radiation and its Repair as Influenced by Vertical Mixing ¶. Photochemistry and Photobiology, 2007, 72, 62-74.	1.3	0
102	Photosynthesis. Volume 2: Development, Carbon Metabolism, and Plant Productivity. Govindjee. Quarterly Review of Biology, 1983, 58, 568-569.	0.0	0