Jeffrey C Cornwell

List of Publications by Year
in descending order

92 papers	7,249 citations	87723 38 h-index	56606 83 g-index
94 all docs	94 docs citations	94 times ranked	6480 citing authors

#	Article	IF	Citations
1	Eutrophication of Chesapeake Bay: historical trends and ecological interactions. Marine Ecology - Progress Series, 2005, 303, 1-29.	0.9	1,200
2	Membrane Inlet Mass Spectrometer for Rapid High-Precision Determination of N2, O2, and Ar in Environmental Water Samples. Analytical Chemistry, 1994, 66, 4166-4170.	3.2	648
3	The chemistry of the hydrogen sulfide and iron sulfide systems in natural waters. Earth-Science Reviews, 1987, 24, 1-42.	4.0	576
4	Title is missing!. Aquatic Ecology, 1999, 33, 41-54.	0.7	258
5	The characterization of iron sulfide minerals in anoxic marine sediments. Marine Chemistry, 1987, 22, 193-206.	0.9	237
6	Denitrification and nutrient assimilation on a restored oyster reef. Marine Ecology - Progress Series, 2013, 480, 1-19.	0.9	215
7	Influence of simulated bivalve biodeposition and microphytobenthos on sediment nitrogen dynamics: A laboratory study. Limnology and Oceanography, 2002, 47, 1367-1379.	1.6	203
8	Denitrification in estuarine sediments determined by membrane inlet mass spectrometry. Limnology and Oceanography, 1998, 43, 334-339.	1.6	182
9	Increased sediment accretion rates following invasion byPhragmites australis: The role of litter. Estuaries and Coasts, 2003, 26, 475-483.	1.7	166
10	Analysis and distribution of iron sulfide minerals in recent anoxic marine sediments. Marine Chemistry, 1987, 22, 55-69.	0.9	160
11	Changes in phosphorus biogeochemistry along an estuarine salinity gradient: The iron conveyer belt. Limnology and Oceanography, 2008, 53, 172-184.	1.6	155
12	Use of oysters to mitigate eutrophication in coastal waters. Estuarine, Coastal and Shelf Science, 2014, 151, 156-168.	0.9	142
13	Ecological Stoichiometry, Biogeochemical Cycling, Invasive Species, and Aquatic Food Webs: San Francisco Estuary and Comparative Systems. Reviews in Fisheries Science, 2011, 19, 358-417.	2.1	139
14	Effects of different submersed macrophytes on sediment biogeochemistry. Aquatic Botany, 1997, 56, 233-244.	0.8	130
15	Redox reactions and weak buffering capacity lead to acidification in the Chesapeake Bay. Nature Communications, 2017, 8, 369.	5.8	128
16	Recent Declines in PAH, PCB, and Toxaphene Levels in the Northern Great Lakes As Determined from High Resolution Sediment Cores. Environmental Science & Technology, 2001, 35, 3809-3815.	4.6	120
17	A Sediment Chronology of the Eutrophication of Chesapeake Bay. Estuaries and Coasts, 1996, 19, 488.	1.7	115
18	Nutrient Budgets and Management Actions in the Patuxent River Estuary, Maryland. Estuaries and Coasts, 2008, 31, 623-651.	1.0	113

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19	Nitrogen, Phosphorus, and Organic Carbon Cycling in an Arctic Lake. Canadian Journal of Fisheries and Aquatic Sciences, 1985, 42, 797-808.	0.7	109
20	Transformation of particle-bound phosphorus at the land-sea interface. Estuarine, Coastal and Shelf Science, 1995, 40, 161-176.	0.9	102
21	Implicit Scaling in the Design of Experimental Aquatic Ecosystems. Oikos, 1999, 85, 3.	1.2	91
22	Effects of cyanobacterial-driven pH increases on sediment nutrient fluxes and coupled nitrification-denitrification in a shallow fresh water estuary. Biogeosciences, 2012, 9, 2697-2710.	1.3	91
23	An examination of the factors influencing the flux of mercury, methylmercury and other constituents from estuarine sediment. Marine Chemistry, 2006, 102, 96-110.	0.9	90
24	Sediment flux modeling: Simulating nitrogen, phosphorus, and silica cycles. Estuarine, Coastal and Shelf Science, 2013, 131, 245-263.	0.9	88
25	Identification of Important Primary Producers in a Chesapeake Bay Tidal Creek System Using Stable Isotopes of Carbon and Sulfur. Estuaries and Coasts, 1997, 20, 77.	1.7	78
26	Quantification of denitrification in permeable sediments: Insights from a twoâ€dimensional simulation analysis and experimental data. Limnology and Oceanography: Methods, 2006, 4, 294-307.	1.0	77
27	Respiratory Succession and Community Succession of Bacterioplankton in Seasonally Anoxic Estuarine Waters. Applied and Environmental Microbiology, 2007, 73, 6802-6810.	1.4	76
28	Transitions in nirS-type denitrifier diversity, community composition, and biogeochemical activity along the Chesapeake Bay estuary. Frontiers in Microbiology, 2013, 4, 237.	1.5	73
29	Multiscale Experiments in Coastal Ecology: Improving Realism and Advancing Theory. BioScience, 2003, 53, 1181.	2.2	72
30	Mediation of benthicâ€“pelagic coupling by microphytobenthos: an energy- and material-based model for initiation of blooms of Aureococcus anophagefferens. Harmful Algae, 2004, 3, 403-437.	2.2	71
31	Effect of oysters Crassostrea virginica and bottom shear velocity on benthic-pelagic coupling and estuarine water quality. Marine Ecology - Progress Series, 2004, 271, 61-75.	0.9	65
32	Controls on Carbonate System Dynamics in a Coastal Plain Estuary: A Modeling Study. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 61-78.	1.3	51
33	Nutrient Fluxes from Sediments in the San Francisco Bay Delta. Estuaries and Coasts, 2014, 37, 1120-1133.	1.0	50
34	Determination of denitrification in the Chesapeake Bay from measurements of N2 accumulation in bottom water. Estuaries and Coasts, 2006, 29, 222-231.	1.0	49
35	Diagenetic trace-metal profiles in Arctic lake sediments. Environmental Science & Technology, 1986, 20, 299-302.	4.6	47
36	Metatranscriptomic Analyses of Plankton Communities Inhabiting Surface and Subpycnocline Waters of the Chesapeake Bay during Oxic-Anoxic-Oxic Transitions. Applied and Environmental Microbiology, 2014, 80, 328-338.	1.4	47

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37	Influence of cyanobacteria blooms on sediment biogeochemistry and nutrient fluxes. Limnology and Oceanography, 2014, 59, 959-971.	1.6	44
38	Chesapeake Bay acidification buffered by spatially decoupled carbonate mineral cycling. Nature Geoscience, 2020, 13, 441-447.	5.4	44
39	Sources and transformations of anthropogenic nitrogen along an urban riverâ€"estuarine continuum. Biogeosciences, 2016, 13, 6211-6228.	1.3	40
40	Stimulation of the brown tide organism, Aureococcus anophagefferens, by selective nutrient additions to in situ mesocosms. Harmful Algae, 2004, 3, 377-388.	2.2	38
41	Phosphorus Burial in Sediments Along the Salinity Gradient of the Patuxent River, a Subestuary of the Chesapeake Bay (USA). Estuaries and Coasts, 2010, 33, 92-106.	1.0	38
42	Biogeochemistry of manganese- and iron-rich sediments in Toolik Lake, Alaska. Hydrobiologia, 1992, 240, 45-59.	1.0	37
43	Metal accumulation in Baltimore Harbor: current and past inputs. Applied Geochemistry, 2004, 19, 1801-1825.	1.4	37
44	Carbon Cycling and the Coupling Between Proton and Electron Transfer Reactions in Aquatic Sediments in Lake Champlain. Aquatic Geochemistry, 2010, 16, 421-446.	1.5	37
45	Influence of Plant Communities on Denitrification in a Tidal Freshwater Marsh of the Potomac River, United States. Journal of Environmental Quality, 2009, 38, 618-626.	1.0	36
46	Modeling the impact of floating oyster (Crassostrea virginica) aquaculture on sediment-water nutrient and oxygen fluxes. Aquaculture Environment Interactions, 2015, 7, 205-222.	0.7	33
47	Nitrogen, phosphorus, and sulfur dynamics in a low salinity marsh system dominated by Spartina alterniflora. Wetlands, 2001, 21, 629-638.	0.7	32
48	Interannual variability of Aureococcus anophagefferens in Quantuck Bay, Long Island: natural test of the DON hypothesis. Harmful Algae, 2004, 3, 389-402.	2.2	29
49	Microtopography in tidal marshes: Ecosystem engineering by vegetation?. Estuaries and Coasts, 2007, 30, 1007-1015.	1.0	28
50	Environmental Controls on Iron Sulfide Mineral Formation in a Coastal Plain Estuary. ACS Symposium Series, 1995, , 224-242.	0.5	27
51	Influences of a River Dam on Delivery and Fate of Sediments and Particulate Nutrients to the Adjacent Estuary: Case Study of Conowingo Dam and Chesapeake Bay. Estuaries and Coasts, 2019, 42, 2072-2095.	1.0	27
52	Variability of stable sulfur isotopic ratios in Spartina alterniflora. Marine Ecology - Progress Series, 1998, 166, 73-81.	0.9	27
53	Sediment Denitrification and Nutrient Fluxes in the San JosÃ© Lagoon, a Tropical Lagoon in the Highly Urbanized San Juan Bay Estuary, Puerto Rico. Estuaries and Coasts, 2015, 38, 2259-2278.	1.0	26
54	Sediment Accumulation Rates in an Alaskan Arctic Lake Using a Modified 210Pb Technique. Canadian Journal of Fisheries and Aquatic Sciences, 1985, 42, 809-814.	0.7	24

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55	Effect of Sediment Manipulation on the Biogeochemistry of Experimental Sediment Systems. Journal of Coastal Research, 2006, 226, 1539-1551.	0.1	24
56	Historical contamination of the Anacostia River, Washington, D.C.. Environmental Monitoring and Assessment, 2011, 183, 307-328.	1.3	24
57	Quantifying Sediment Nitrogen Releases Associated with Estuarine Dredging. Aquatic Geochemistry, 2011, 17, 499-517.	1.5	24
58	Osmium Isotopes Demonstrate Distal Transport of Contaminated Sediments in Chesapeake Bay. Environmental Science & Technology, 2000, 34, 2528-2534.	4.6	21
59	Source partitioning of oxygenâ€consuming organic matter in the hypoxic zone of the Chesapeake Bay. Limnology and Oceanography, 2020, 65, 1801-1817.	1.6	20
60	Key respiratory genes elucidate bacterial community respiration in a seasonally anoxic estuary. Environmental Microbiology, 2015, 17, 2306-2318.	1.8	18
61	The Effects of Oxygen Transition on Community Respiration and Potential Chemoautotrophic Production in a Seasonally Stratified Anoxic Estuary. Estuaries and Coasts, 2015, 38, 104-117.	1.0	18
62	Cation export from Alaskan arctic watersheds. Hydrobiologia, 1992, 240, 15-22.	1.0	17
63	Phosphorus Sequestration in Sediments Along the Salinity Gradients of Chesapeake Bay Subestuaries. Estuaries and Coasts, 2017, 40, 1607-1625.	1.0	17
64	Nitrogen and oxygen availabilities control water column nitrous oxide production during seasonal anoxia in the Chesapeake Bay. Biogeosciences, 2018, 15, 6127-6138.	1.3	17
65	A silicon budget for an Alaskan arctic lake. Hydrobiologia, 1992, 240, 37-44.	1.0	16
66	Tidal Marsh Restoration at Poplar Island: II. Elevation Trends, Vegetation Development, and Carbon Dynamics. Wetlands, 2020, 40, 1687-1701.	0.7	16
67	Tidal Marsh Restoration at Poplar Island I: Transformation of Estuarine Sediments into Marsh Soils. Wetlands, 2020, 40, 1673-1686.	0.7	16
68	Sediment-Water Nitrogen Exchange along the Potomac River Estuarine Salinity Gradient. Journal of Coastal Research, 2016, 320, 776-787.	0.1	15
69	Comparison of methods for determining biogeochemical fluxes from a restored oyster reef. PLoS ONE, 2018, 13, e0209799.	1.1	15
70	Microtopographic variability in plant distribution and biogeochemistry in a brackish-marsh system. Marine Ecology - Progress Series, 2006, 320, 121-129.	0.9	15
71	Interactive Effects of Physical and Biogeochemical Feedback Processes in a Large Submersed Plant Bed. Estuaries and Coasts, 2017, 40, 1626-1641.	1.0	14
72	The Role of Oligohaline Marshes in Estuarine Nutrient Cycling. , 2002, , 425-441.		14

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73	Short-term effects of nereid polychaete size and density on sediment inorganic nitrogen cycling under varying oxygen conditions. Marine Ecology - Progress Series, 2015, 524, 155-169.	0.9	14
74	A review of how we assess denitrification in oyster habitats and proposed guidelines for future studies. Limnology and Oceanography: Methods, 2021, 19, 714-731.	1.0	13
75	Elevated microbial CO2 production and fixation in the oxic/anoxic interface of estuarine water columns during seasonal anoxia. Estuarine, Coastal and Shelf Science, 2015, 164, 65-76.	0.9	12
76	Biogeochemieal origin of Î´34S isotopic signatures in a prairie marsh. Canadian Journal of Fisheries and Aquatic Sciences, 1995, 52, 1816-1820.	0.7	11
77	The Benthic Exchange of O₂, N₂ and Dissolved Nutrients Using Small Core Incubations. Journal of Visualized Experiments, 2016, , .	0.2	8
78	Photosynthesis and nitrogen fixation during cyanobacteria blooms in an oligohaline and tidal freshwater estuary. Aquatic Microbial Ecology, 2014, 72, 127-142.	0.9	8
79	A Preliminary Sediment Budget for the Corsica River (MD): Improved Estimates of Nitrogen Burial and Implications for Restoration. Estuaries and Coasts, 2012, 35, 546-558.	1.0	7
80	Contributions of Organic and Mineral Matter to Vertical Accretion in Tidal Wetlands across a Chesapeake Bay Subestuary. Journal of Marine Science and Engineering, 2021, 9, 751.	1.2	6
81	Evaluating estuarine sediment provenance from geochemical patterns in upper Chesapeake Bay. Chemical Geology, 2020, 533, 119404.	1.4	5
82	The Fate of Nitrogen in Dredged Material Used for Tidal Marsh Restoration. Journal of Marine Science and Engineering, 2021, 9, 849.	1.2	5
83	Effects of resuspension of eastern oyster Crassostrea virginica biodeposits on phytoplankton community structure. Marine Ecology - Progress Series, 2020, 640, 79-105.	0.9	5
84	Temporal enhancement of denitrification in bioirrigated estuarine sediments. Aquatic Sciences, 2020, 82, 1.	0.6	4
85	The Development of Denitrification and of the Denitrifying Community in a Newly-Created Freshwater Wetland. Wetlands, 2020, 40, 1005-1016.	0.7	4
86	Nutrient Retention and Release in Eroding Chesapeake Bay Tidal Wetlands. Journal of the American Water Resources Association, 0, , .	1.0	2
87	Mercury and Zinc in the Sediments of Seneca Lake, Seneca River, and Keuka Outlet, New York. Journal of Great Lakes Research, 1980, 6, 68-75.	0.8	1
88	Measurement of Sulfate Reduction in Wetland Soils. Soil Science Society of America Book Series, 0, , 765-773.	0.3	1
89	Controls on Nutrient Cycling in Estuarine Mangrove Lake Sediments. Journal of Marine Science and Engineering, 2021, 9, 626.	1.2	1
90	Biogeochemistry of manganese- and iron-rich sediments in Toolik Lake, Alaska. , 1992, , 45-59.		1

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91	A silicon budget for an Alaskan arctic lake. , 1992, , 37-44.		1
92	Mitigation of CyanoHABs Using PhoslockÂ® to Reduce Water Column Phosphorus and Nutrient Release from Sediment. International Journal of Environmental Research and Public Health, 2021, 18, 13360.	1.2	1