Robinson Fulweiler

List of Publications by Citations

102 papers	3,116 citations	29 h-index	53 g-index
112 ext. papers	3,892 ext. citations	6.7 avg, IF	5.75 L-index

#	Paper	IF	Citations
102	Challenges to incorporating spatially and temporally explicit phenomena (hotspots and hot moments) in denitrification models. *Biogeochemistry*, **2009**, 93, 49-77	3.8	465
101	Rebuilding marine life. *Nature*, **2020**, 580, 39-51	50.4	262
100	Reversal of the net dinitrogen gas flux in coastal marine sediments. *Nature*, **2007**, 448, 180-2	50.4	153
99	The impact of changing climate on phenology, productivity, and benthic-pelagic coupling in Narragansett Bay. *Estuarine, Coastal and Shelf Science*, **2009**, 82, 1-18	2.9	136
98	The terrestrial silica pump. *PLoS ONE*, **2012**, 7, e52932	3.7	92
97	Toward the Geoscience Paper of the Future: Best practices for documenting and sharing research from data to software to provenance. *Earth and Space Science*, **2016**, 3, 388-415	3.1	90
96	Modeling denitrification in aquatic sediments. *Biogeochemistry*, **2009**, 93, 159-178	3.8	87
95	Evidence and a conceptual model for the co-occurrence of nitrogen fixation and denitrification in heterotrophic marine sediments. *Marine Ecology - Progress Series*, **2013**, 482, 57-68	2.6	82
94	Human activities directly alter watershed dissolved silica fluxes. *Biogeochemistry*, **2012**, 111, 125-138	3.8	73
93	Global Carbon Cycling on a Heterogeneous Seafloor. *Trends in Ecology and Evolution*, **2018**, 33, 96-105	10.9	73
92	Terrestrial vegetation and the seasonal cycleof dissolved silica in a southern New Englandcoastal river. *Biogeochemistry*, **2005**, 74, 115-130	3.8	69
91	Mississippi River flood of 2008: observations of a large freshwater diversion on physical, chemical, and biological characteristics of a shallow estuarine lake. *Environmental Science & Technology*, **2009**, 43, 5599-604	10.3	66
90	Directly Measured Denitrification Reveals Oyster Aquaculture and Restored Oyster Reefs Remove Nitrogen at Comparable High Rates. *Frontiers in Marine Science*, **2016**, 3,	4.5	59
89	Ecological control of nitrite in the upper ocean. *Nature Communications*, **2018**, 9, 1206	17.4	54
88	A synthesis of methane emissions from shallow vegetated coastal ecosystems. *Global Change Biology*, **2020**, 26, 2988-3005	11.4	53
87	Human appropriation of biogenic silicon the increasing role of agriculture. *Functional Ecology*, **2016**, 30, 1331-1339	5.6	50
86	Sediment Nitrogen Fixation: a Call for Re-evaluating Coastal N Budgets. *Estuaries and Coasts*, **2016**, 39, 1626-1638	2.8	49

85	Reconsidering Ocean Calamities. *BioScience*, **2015**, 65, 130-139	5.7	46
84	Denitrification in coastal Louisiana: A spatial assessment and research needs. *Journal of Sea Research*, **2010**, 63, 157-172	1.9	45
83	Net Sediment N2 Fluxes in a Coastal Marine System Experimental Manipulations and a Conceptual Model. *Ecosystems*, **2008**, 11, 1168-1180	3.9	44
82	Spartina alterniflora and invasive Phragmites australis stands have similar greenhouse gas emissions in a New England marsh. *Aquatic Botany*, **2014**, 116, 83-92	1.8	41
81	Effects of freshwater input on nutrient loading, phytoplankton biomass, and cyanotoxin production in an oligohaline estuarine lake. *Hydrobiologia*, **2011**, 661, 377-389	2.4	41
80	Spatial and Temporal Variability of Benthic Oxygen Demand and Nutrient Regeneration in an Anthropogenically Impacted New England Estuary. *Estuaries and Coasts*, **2010**, 33, 1377-1390	2.8	38
79	The Declining Role of Organic Matter in New England Salt Marshes. *Estuaries and Coasts*, **2017**, 40, 626-639	2.8	37
78	Examining the impact of acetylene on N-fixation and the active sediment microbial community. *Frontiers in Microbiology*, **2015**, 6, 418	5.7	37
77	The relationships among hydrodynamics, sediment distribution, and chlorophyll in a mesotidal estuary. *Estuarine, Coastal and Shelf Science*, **2014**, 144, 54-64	2.9	36
76	Responses of benthic-pelagic coupling to climate change in a temperate estuary. *Hydrobiologia*, **2009**, 629, 147-156	2.4	35
75	Nitrogen and Phosphorus Inputs to Narragansett Bay: Past, Present, and Future **2008**, 101-175		35
74	Watershed land use alters riverine silica cycling. *Biogeochemistry*, **2013**, 113, 525-544	3.8	31
73	Molecular evidence for sediment nitrogen fixation in a temperate New England estuary. *PeerJ*, **2016**, 4, e1615	3.1	29
72	Whole truths vs. half truths - And a search for clarity in long-term water temperature records. *Estuarine, Coastal and Shelf Science*, **2015**, 157, A1-A6	2.9	28
71	A critical review of the 15N2 tracer method to measure diazotrophic production in pelagic ecosystems. *Limnology and Oceanography: Methods*, **2020**, 18, 129-147	2.6	28
70	Low Greenhouse Gas Emissions from Oyster Aquaculture. *Environmental Science & Technology*, **2019**, 53, 9118-9127	10.3	27
69	The ebb and flood of Silica: Quantifying dissolved and biogenic silica fluxes from a temperate salt marsh. *Estuarine, Coastal and Shelf Science*, **2011**, 95, 415-423	2.9	25
68	Assessing the Role of pH in Determining Water Column Nitrification Rates in a Coastal System. *Estuaries and Coasts*, **2011**, 34, 1095-1102	2.8	23

67	Impacts of long-term fertilization on salt marsh tidal creek benthic nutrient and N2 gas fluxes. *Marine Ecology - Progress Series*, **2012**, 471, 11-22	2.6	23
66	Promoting inclusive metrics of success and impact to dismantle a discriminatory reward system in science. *PLoS Biology*, **2021**, 19, e3001282	9.7	23
65	Rebuild the Academy: Supporting academic mothers during COVID-19 and beyond. *PLoS Biology*, **2021**, 19, e3001100	9.7	23
64	Net sediment N2 fluxes in a southern New England estuary: variations in space and time. *Biogeochemistry*, **2012**, 111, 111-124	3.8	22
63	Silica uptake by Spartina-evidence of multiple modes of accumulation from salt marshes around the world. *Frontiers in Plant Science*, **2014**, 5, 186	6.2	21
62	Nitrogen enrichment increases net silica accumulation in a temperate salt marsh. *Limnology and Oceanography*, **2013**, 58, 99-111	4.8	21
61	(Nearly) A Decade of Directly Measured Sediment N2 Fluxes: What Can Narragansett Bay Tell Us About the Global Ocean Nitrogen Budget?. *Oceanography*, **2014**, 27, 184-195	2.3	21
60	Methane and Nitrous Oxide Emissions Complicate Coastal Blue Carbon Assessments. *Global Biogeochemical Cycles*, **2021**, 35, e2020GB006858	5.9	21
59	Export of Nitrogen, Phosphorus, and Suspended Solids from a Southern New England Watershed to Little Narragansett Bay. *Biogeochemistry*, **2005**, 76, 567-593	3.8	20
58	Coastal water column ammonium and nitrite oxidation are decoupled in summer. *Estuarine, Coastal and Shelf Science*, **2016**, 178, 110-119	2.9	20
57	Spatial and historic variability of benthic nitrogen cycling in an anthropogenically impacted estuary. *Frontiers in Marine Science*, **2014**, 1,	4.5	19
56	Ecological footprints and shadows in an urban estuary, Narragansett Bay, RI (USA). *Regional Environmental Change*, **2012**, 12, 381-394	4.3	19
55	Directly measured net denitrification rates in offshore New England sediments. *Continental Shelf Research*, **2012**, 45, 78-86	2.4	18
54	Sediment Nitrous Oxide Fluxes Are Dominated by Uptake in a Temperate Estuary. *Frontiers in Marine Science*, **2016**, 3,	4.5	17
53	Does elevated CO2 alter silica uptake in trees?. *Frontiers in Plant Science*, **2014**, 5, 793	6.2	16
52	A Review of the Emerging Field of Underwater Mass Spectrometry. *Frontiers in Marine Science*, **2016**, 3,	4.5	16
51	Fate and Effect of Dissolved Silicon within Wastewater Treatment Effluent. *Environmental Science & Technology*, **2017**, 51, 7403-7411	10.3	15
50	Low ratios of silica to dissolved nitrogen supplied to rivers arise from agriculture not reservoirs. *Ecology Letters*, **2016**, 19, 1414-1418	10	14

49	Tidal pulsing alters nitrous oxide fluxes in a temperate intertidal mudflat. *Ecology*, **2014**, 95, 1960-71	4.6	14
48	Salt marsh tidal exchange increases residence time of silica in estuaries. *Limnology and Oceanography*, **2014**, 59, 1203-1212	4.8	13
47	Nitrogen and phosphorus cycling in the digestive system and shell biofilm of the eastern oyster Crassostrea virginica. *Marine Ecology - Progress Series*, **2019**, 621, 95-105	2.6	13
46	Winter climate change and fine root biogenic silica in sugar maple trees (Acer saccharum): Implications for silica in the Anthropocene. *Journal of Geophysical Research G: Biogeosciences*, **2017**, 122, 708-715	3.7	12
45	Urban Dissolved Silica: Quantifying the Role of Groundwater and Runoff in Wastewater Influent. *Environmental Science & Technology*, **2016**, 50, 54-61	10.3	12
44	Benthic metabolism and nutrient regeneration in hydrographically different regions on the inner continental shelf of Southern New England. *Estuarine, Coastal and Shelf Science*, **2014**, 148, 14-26	2.9	12
43	The eutrophication commandments. *Marine Pollution Bulletin*, **2012**, 64, 1997-9	6.7	12
42	Meta-analysis of oyster impacts on coastal biogeochemistry. *Nature Sustainability*, **2021**, 4, 261-269	22.1	12
41	Estuarine Sediments Exhibit Dynamic and Variable Biogeochemical Responses to Hypoxia. *Journal of Geophysical Research G: Biogeosciences*, **2019**, 124, 737-758	3.7	10
40	Salt Marsh Greenhouse Gas Fluxes and Microbial Communities Are Not Sensitive to the First Year of Precipitation Change. *Journal of Geophysical Research G: Biogeosciences*, **2019**, 124, 1071-1087	3.7	10
39	12.13 Ecogeomorphology of Tidal Flats **2013**, 201-220		9
38	12.12 Ecogeomorphology of Salt Marshes **2013**, 182-200		8
37	Responses of benthic-pelagic coupling to climate change in a temperate estuary **2009**, 147-156		8
36	Opinion: Telepresence is a potentially transformative tool for field science. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 4841-4844	11.5	7
35	Soil Warming Accelerates Biogeochemical Silica Cycling in a Temperate Forest. *Frontiers in Plant Science*, **2019**, 10, 1097	6.2	7
34	Incomplete tidal restoration may lead to persistent high CH4 emission. *Ecosphere*, **2017**, 8, e01968	3.1	7
33	Sediment biogeochemistry along an oyster aquaculture chronosequence. *Marine Ecology - Progress Series*, **2020**, 646, 13-27	2.6	7
32	Ideas and perspectives: A strategic assessment of methane and nitrous oxide measurements in the marine environment. *Biogeosciences*, **2020**, 17, 5809-5828	4.6	7

31	The effect of evaporation on the erodibility of mudflats in a mesotidal estuary. *Estuarine, Coastal and Shelf Science*, **2017**, 194, 118-127	2.9	6
30	Microbiology. Fantastic fixers. *Science*, **2009**, 326, 377-8	33.3	6
29	A workflow for reproducing mean benthic gas fluxes. *Earth and Space Science*, **2016**, 3, 318-325	3.1	5
28	Greenhouse Gas Emissions From Native and Non-native Oysters. *Frontiers in Environmental Science*, **2019**, 7,	4.8	5
27	Evidence, causes, and consequences of declining nitrogen availability in terrestrial ecosystems.. *Science*, **2022**, 376, eabh3767	33.3	5
26	Seasonal patterns of benthic-pelagic coupling in oyster habitats. *Marine Ecology - Progress Series*, **2020**, 652, 95-109	2.6	4
25	Opportunities and Challenges for Including Oyster-Mediated Denitrification in Nitrogen Management Plans.. *Estuaries and Coasts*, **2021**, 44, 2041-2055	2.8	4
24	Urban groundwater dissolved silica concentrations are elevated due to vertical composition of historic land-filling. *Science of the Total Environment*, **2019**, 684, 89-95	10.2	2
23	Ocean Calamities: Delineating the Boundaries between Scientific Evidence and Belief. *BioScience*, **2015**, 65, 746-747	5.7	2
22	A review of how we assess denitrification in oyster habitats and proposed guidelines for future studies. *Limnology and Oceanography: Methods*, **2021**, 19, 714	2.6	2
21	First, do no harm. *Frontiers in Ecology and the Environment*, **2013**, 11, 59-59	5.5	1
20	16S rRNA Amplicon Sequencing of Sediment Bacterial Communities in an Oyster Farm in Rhode Island. *Microbiology Resource Announcements*, **2019**, 8,	1.3	1
19	Negligible Greenhouse Gas Release from Sediments in Oyster Habitats. *Environmental Science & Technology*, **2021**, 55, 14225-14233	10.3	1
18	Nitrogen fixation: a poorly understood process along the freshwater-marine continuum.. *Limnology and Oceanography Letters*, **2022**, 7, 1-10	7.9	1
17	Tidal rewetting in salt marshes triggers pulses of nitrous oxide emissions but slows carbon dioxide emission. *Soil Biology and Biochemistry*, **2021**, 156, 108197	7.5	1
16	High Productivity Makes Mangroves Potentially Important Players in the Tropical Silicon Cycle. *Frontiers in Marine Science*, **2021**, 8,	4.5	1
15	The Nitrogen Cycle **2021**, 161-188		1
14	Marine macroalgae are an overlooked sink of Si in coastal systems. *New Phytologist*, **2021**,	9.8	0

13	A mass spectrometer-based pore-water sampling system for sandy sediments. *Limnology and Oceanography: Methods*, **2021**, 19, 769	2.6	0
12	Beyond Bioextraction: The Role of Oyster-Mediated Denitrification in Nutrient Management. *Environmental Science & Technology*, **2021**, 55, 14457-14465	10.3	0
11	The Role of Marshes in Coastal Nutrient Dynamics and Loss **2021**, 113-154		0
10	Low denitrification rates and variable benthic nutrient fluxes characterize Long Island Sound sediments. *Biogeochemistry*, **2021**, 154, 37-62	3.8	0
9	Evaluating connections between nitrogen cycling and the macrofauna in native oyster beds in a New England estuary.. *Estuaries and Coasts*, **2021**, 45, 196-212	2.8	0
8	Coastal silicon cycling amplified by oyster aquaculture. *Marine Ecology - Progress Series*, **2021**, 673, 29-41	2.6	0
7	In Memoriam, Scott M. Nixon (1943–2012). *Estuaries and Coasts*, **2015**, 38, 1123-1125	2.8	
6	Response to concerns and uncertainties relating to methane emissions synthesis for vegetated coastal ecosystems. *Global Change Biology*, **2020**, 26, e10-e11	11.4	
5	CITATION FOR SCIENTIFIC EXCELLENCE: SCOTT W. NIXON. *Limnology and Oceanography Bulletin*, **2013**, 22, 20-21	0.9	
4	Variation among Estuarine Geochemistry and Productivity **2011**, 87-98		
3	Greenhouse Gas Concentrations Driven by Microbial Community Structure in Boston Groundwater Wells. *FASEB Journal*, **2020**, 34, 1-1	0.9	
2	The Oligotrophication of Narragansett Bay **2021**, 301-309		
1	Influence of Late Holocene climate on Lake Eggers hydrology, McMurdo Sound. *Antarctic Science*, **2021**, 33, 217-229	1.7	