Paul S Kench

List of Publications by Year
in descending order

101 papers	4,973 citations	70961 41 h-index	98622 67 g-index
107 all docs	107 docs citations	107 times ranked	3092 citing authors

#	Article	IF	Citations
1	The dynamic response of reef islands to sea-level rise: Evidence from multi-decadal analysis of island change in the Central Pacific. Global and Planetary Change, 2010, 72, 234-246.	1.6	336
2	Caribbean-wide decline in carbonate production threatens coral reef growth. Nature Communications, 2013, 4, 1402.	5.8	291
3	Loss of coral reef growth capacity to track future increases in sea level. Nature, 2018, 558, 396-400.	13.7	250
4	Carbonate budgets and reef production states: a geomorphic perspective on the ecological phase-shift concept. Coral Reefs, 2008, 27, 853-866.	0.9	178
5	Wave Processes on Coral Reef Flats: Implications for Reef Geomorphology Using Australian Case Studies. Journal of Coastal Research, 2006, 221, 209-223.	0.1	172
6	Estimating rates of biologically driven coral reef framework production and erosion: a new census-based carbonate budget methodology and applications to the reefs of Bonaire. Coral Reefs, 2012, 31, 853-868.	0.9	162
7	Spatial and temporal variations in wave characteristics across a reef platform, Warraber Island, Torres Strait, Australia. Marine Geology, 2004, 207, 169-184.	0.9	155
8	Implications of reef ecosystem change for the stability and maintenance of coral reef islands. Global Change Biology, 2011, 17, 3679-3696.	4.2	153
9	Response of reef island shorelines to seasonal climate oscillations: South Maalhosmadulu atoll, Maldives. Journal of Geophysical Research, 2006, 111, .	3.3	119
10	Destruction or persistence of coral atoll islands in the face of 20th and 21st century seaâ€level rise?. Wiley Interdisciplinary Reviews: Climate Change, 2015, 6, 445-463.	3.6	119
11	Geological effects of tsunami on mid-ocean atoll islands: The Maldives before and after the Sumatran tsunami. Geology, 2006, 34, 177.	2.0	106
12	Regionalâ€scale dominance of nonâ€framework building corals on Caribbean reefs affects carbonate production and future reef growth. Global Change Biology, 2015, 21, 1153-1164.	4.2	101
13	Patterns of island change and persistence offer alternate adaptation pathways for atoll nations. Nature Communications, 2018, 9, 605.	5.8	99
14	Heavy metal contamination of coastal lagoon sediments: Fongafale Islet, Funafuti Atoll, Tuvalu. Chemosphere, 2014, 95, 628-634.	4.2	95
15	Wave energy gradients across a Maldivian atoll: Implications for island geomorphology. Geomorphology, 2006, 81, 1-17.	1.1	93
16	Mucus Sugar Content Shapes the Bacterial Community Structure in Thermally Stressed Acropora muricata. Frontiers in Microbiology, 2016, 7, 371.	1.5	86
17	Evidence for coral island formation during rising sea level in the central Pacific Ocean. Geophysical Research Letters, 2014, 41, 820-827.	1.5	79
18	Carbonate production of an emergent reef platform, Warraber Island, Torres Strait, Australia. Coral Reefs, 2007, 26, 53-68.	0.9	77

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19	Changing dynamics of Caribbean reef carbonate budgets: emergence of reef bioeroders as critical controls on present and future reef growth potential. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20142018.	1.2	76
20	Tsunami as agents of geomorphic change in mid-ocean reef islands. Geomorphology, 2008, 95, 361-383.	1.1	74
21	Physical processes in an Indian Ocean atoll. Coral Reefs, 1998, 17, 155-168.	0.9	71
22	Geomorphology of Australian estuaries: Review and prospect. Austral Ecology, 1999, 24, 367-380.	0.7	71
23	Successive shifts in the microbial community of the surface mucus layer and tissues of the coralAcropora muricataunder thermal stress. FEMS Microbiology Ecology, 2015, 91, fiv142.	1.3	70
24	Multi-decadal shoreline changes in response to sea level rise in the Marshall Islands. Anthropocene, 2015, 11, 14-24.	1.6	58
25	Hydrodynamics and morphological adjustment of a mixed sand and gravel beach, Torere, Bay of Plenty, New Zealand. Marine Geology, 2006, 228, 137-152.	0.9	56
26	Analytical modelling of wave refraction and convergence on coral reef platforms: Implications for island formation and stability. Geomorphology, 2012, 159-160, 84-92.	1.1	56
27	The durability of bioclastic sediments and implications for coral reef deposit formation. Sedimentology, 2012, 59, 830-842.	1.6	52
28	Wave transformation and shoreline water level on <scp>F</scp>unafuti <scp>A</scp>toll, <scp>T</scp>uvalu. Journal of Geophysical Research: Oceans, 2016, 121, 311-326.	1.0	52
29	Hydraulic characteristics of bioclastic deposits: new possibilities for environmental interpretation using settling velocity fractions. Sedimentology, 1996, 43, 561-570.	1.6	51
30	Formation and adjustment of typhoon-impacted reef islands interpreted from remote imagery: Nadikdik Atoll, Marshall Islands. Geomorphology, 2014, 214, 216-222.	1.1	51
31	Coral reef islands can accrete vertically in response to sea level rise. Science Advances, 2020, 6, eaay3656.	4.7	51
32	Field observations of infragravity waves and their behaviour on rock shore platforms. Earth Surface Processes and Landforms, 2011, 36, 1872-1888.	1.2	50
33	Parrotfish erosion underpins reef growth, sand talus development and island building in the Maldives. Sedimentary Geology, 2016, 341, 50-57.	1.0	49
34	Future Reef Growth Can Mitigate Physical Impacts of Seaâ€Level Rise on Atoll Islands. Earth's Future, 2017, 5, 1002-1014.	2.4	48
35	Field observations of wave-driven water-level gradients across a coral reef flat. Journal of Geophysical Research, 2007, 112, .	3.3	46
36	Skeletal extension and calcification of reef-building corals in the central Indian Ocean. Marine Environmental Research, 2012, 81, 78-82.	1.1	45

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37	Hydrodynamics and sediment flux of hoa in an Indian Ocean atoll. Earth Surface Processes and Landforms, 2004, 29, 933-953.	1.2	44
38	Seasonal variations in wave characteristics around a coral reef island, South Maalhosmadulu atoll, Maldives. Marine Geology, 2009, 262, 116-129.	0.9	43
39	Reef Island Evolution and Dynamics: Insights from the Indian and Pacific Oceans and Perspectives for the Spermonde Archipelago. Frontiers in Marine Science, 2017, 4, .	1.2	43
40	Predicting wave overtopping thresholds on coral reef-island shorelines with future sea-level rise. Nature Communications, 2018, 9, 3997.	5.8	43
41	A comparison of settling and sieve techniques for the analysis of bioclastic sediments. Sedimentary Geology, 1997, 109, 111-119.	1.0	42
42	Sedimentology and preservation potential of carbonate sand sheets deposited by the December 2004 Indian Ocean tsunami: South Baa Atoll, Maldives. Sedimentology, 2008, 55, 1173-1187.	1.6	42
43	Reef island dynamics and mechanisms of change in Huvadhoo Atoll, Republic of Maldives, Indian Ocean. Anthropocene, 2017, 18, 57-68.	1.6	40
44	Seaâ€cliff retreat and shore platform widening: steadyâ€state equilibrium?. Earth Surface Processes and Landforms, 2013, 38, 1046-1048.	1.2	38
45	Conservation of low-islands: high priority despite sea-level rise. A comment on Courchamp et al.. Trends in Ecology and Evolution, 2015, 30, 1-2.	4.2	38
46	Monsoonally influenced circulation around coral reef islands and seasonal dynamics of reef island shorelines. Marine Geology, 2009, 266, 91-108.	0.9	37
47	Spatiotemporal variability of typhoon impacts and relaxation intervals on Jaluit Atoll, Marshall Islands. Geology, 2016, 44, 159-162.	2.0	37
48	Physical modelling of the response of reef islands to sea-level rise. Geology, 2019, 47, 803-806.	2.0	37
49	An exploratory numerical model of rocky shore profile evolution. Geomorphology, 2016, 268, 98-109.	1.1	36
50	Adaptation to sea level rise on low coral islands: Lessons from recent events. Ocean and Coastal Management, 2019, 168, 35-40.	2.0	35
51	Contemporary sedimentation in the Cocos (Keeling) Islands, Indian Ocean: interpretation using settling velocity analysis. Sedimentary Geology, 1997, 114, 109-130.	1.0	34
52	Sand cay evolution on reef platforms, Mamanuca Islands, Fiji. Marine Geology, 2010, 269, 61-73.	0.9	34
53	Field Measurements of Wave Characteristics on a Nearâ€Horizontal Shore Platform, Mahia Peninsula, North Island, New Zealand. Geographical Research, 2012, 50, 179-192.	0.9	34
54	The geomorphology, development and temporal dynamics of Tepuka Island, Funafuti atoll, Tuvalu. Geomorphology, 2014, 222, 46-58.	1.1	33

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55	Longshore transport of cobbles on a mixed sand and gravel beach, southern Hawke Bay, New Zealand. Marine Geology, 2011, 287, 31-42.	0.9	30
56	Hydrodynamic constraints and storm wave characteristics on a subâ€horizontal shore platform. Earth Surface Processes and Landforms, 2015, 40, 65-77.	1.2	30
57	Wave energy gradients and shoreline change on Vabbinfaru platform, Maldives. Geomorphology, 2014, 209, 98-110.	1.1	29
58	Physical and Numerical Modeling of Infragravity Wave Generation and Transformation on Coral Reef Platforms. Journal of Geophysical Research: Oceans, 2019, 124, 1410-1433.	1.0	28
59	Reef to island sediment connections on a Maldivian carbonate platform: using benthic ecology and biosedimentary depositional facies to examine islandâ€building potential. Earth Surface Processes and Landforms, 2016, 41, 1815-1825.	1.2	25
60	Coral Reef Island Initiation and Development Under Higher Than Present Sea Levels. Geophysical Research Letters, 2018, 45, 11,265.	1.5	24
61	Compromising Reef Island Shoreline Dynamics: Legacies of the Engineering Paradigm in the Maldives. Coastal Research Library, 2012, , 165-186.	0.2	24
62	Modelling the relative dominance of wave erosion and weathering processes in shore platform development in microâ€to megaâ€tidal settings. Earth Surface Processes and Landforms, 2018, 43, 2642-2653.	1.2	21
63	Climate-forced sea-level lowstands in the Indian Ocean during the last two millennia. Nature Geoscience, 2020, 13, 61-64.	5.4	21
64	Coral reefs. , 2009, , 180-213.		20
65	Sediment supply dampens the erosive effects of sea-level rise on reef islands. Scientific Reports, 2021, 11, 5523.	1.6	20
66	Multiâ€decadal coastal change in New Zealand: Evidence, mechanisms and implications. New Zealand Geographer, 2008, 64, 117-128.	0.4	19
67	Water flow buffers shifts in bacterial community structure in heat-stressed Acropora muricata. Scientific Reports, 2017, 7, 43600.	1.6	19
68	Massive corals maintain a positive carbonate budget of a Maldivian upper reef platform despite major bleaching event. Scientific Reports, 2019, 9, 6515.	1.6	19
69	Modelling reef hydrodynamics and sediment mobility under sea level rise in atoll reef island systems. Global and Planetary Change, 2020, 192, 103196.	1.6	19
70	Co-creating Resilience Solutions to Coastal Hazards Through an Interdisciplinary Research Project in New Zealand. Journal of Coastal Research, 2018, 85, 1496-1500.	0.1	18
71	Sustained coral reef growth in the critical wave dissipation zone of a Maldivian atoll. Communications Earth & Environment, 2022, 3, .	2.6	18
72	Modelling gravel barrier response to storms and sudden relative sea-level change using XBeach-G. Marine Geology, 2019, 410, 164-175.	0.9	17

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73	Holocene sea level dynamics drive formation of a large atoll island in the central Indian Ocean. Global and Planetary Change, 2020, 195, 103354.	1.6	16
74	Generalised observations of wave characteristics on nearâ€horizontal shore platforms: Synthesis of six case studies from the North Island, New Zealand. New Zealand Geographer, 2016, 72, 107-121.	0.4	13
75	Carbonate production rates of encruster communities on a lagoonal patch reef: Vabbinfaru reef platform, Maldives. Marine and Freshwater Research, 2014, 65, 720.	0.7	12
76	Active Sediment Generation on Coral Reef Flats Contributes to Recent Reef Island Expansion. Geophysical Research Letters, 2020, 47, e2020GL088752.	1.5	12
77	Shoreline changes in coral reef islands of the Federated States of Micronesia since the mid-20th century. Geomorphology, 2021, 377, 107584.	1.1	12
78	Multi-decadal planform changes on coral reef islands from atolls and mid-ocean reef platforms of the equatorial Pacific Ocean: Gilbert Islands, Republic of Kiribati. Geomorphology, 2021, 389, 107831.	1.1	12
79	Observation of Wave Transformation on Macro-tidal Rocky Platforms. Journal of Coastal Research, 2016, 75, 602-606.	0.1	11
80	Comment on â€œNew perspectives for the future of the Maldivesâ€•by MÃ¶rner, N.A., et al. [Global Planet. Change 40 (2004), 177â€“182]. Global and Planetary Change, 2005, 47, 67-69.	1.6	9
81	Modelling the Development of Varied Shore Profile Geometry on Rocky Coasts. Journal of Coastal Research, 2016, 75, 597-601.	0.1	9
82	Atoll-scale comparisons of the sedimentary structure of coral reef rim islands, Huvadhu Atoll, Maldives. Journal of Coastal Research, 2016, 75, 577-581.	0.1	7
83	New rates of Indian Ocean carbonate production by encrusting coral reef calcifiers: Periodic expansions following disturbance influence reef-building and recovery. Marine Geology, 2017, 390, 72-79.	0.9	7
84	Multi-decadal shoreline change and beach connectivity in a high-energy sand system. New Zealand Journal of Marine and Freshwater Research, 2017, 51, 406-426.	0.8	7
85	Preservation and Destruction of Holocene Marine Terraces: The Effects of Episodic Versus Gradual Relative Sea Level Change. Geophysical Research Letters, 2021, 48, e2021GL094543.	1.5	7
86	Developments in coral reef and reef island geomorphology. Geomorphology, 2014, 222, 1-2.	1.1	6
87	Heightened storm activity drives late Holocene reef island formation in the central Pacific Ocean. Global and Planetary Change, 2022, 215, 103888.	1.6	6
88	Model Skill and Sensitivity for Simulating Wave Processes on Coral Reefs Using a Shock-Capturing Green-Naghdi Solver. Journal of Coastal Research, 2018, 345, 1087-1099.	0.1	5
89	Porites Calcifying Fluid pH on Seasonal to Diurnal Scales. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016889.	1.0	5
90	A commentary on coastal research in New Zealand universities. New Zealand Geographer, 2008, 64, 93-104.	0.4	4

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91	Lagoonal reef sediment supply and island connectivity, Huvadhu Atoll, Maldives. Journal of Coastal Research, 2016, 75, 587-591.	0.1	4
92	Physical Modelling of Reef Platform Hydrodynamics. Journal of Coastal Research, 2018, 85, 491-495.	0.1	4
93	Eco-Morphodynamics. Encyclopedia of Earth Sciences Series, 2011, , 359-363.	0.1	4
94	Coral Reef Systems and the Complexity of Hazards. , 2015, , 431-465.		1
95	Fossil Reefs Reveal Temporally Distinct Late Holocene Lagoonal Reef Shutdown Episodes at Kiritimati Island, Central Pacific. Geophysical Research Letters, 2021, 48, e2020GL092113.	1.5	1
96	EXPLORING REEF ISLAND MORPHODYNAMICS: A PHYSICAL MODELLING METHODOLOGY. , 2019, , .		1
97	Geological Approaches to Coral Reef Ecology. Eos, 2008, 89, 352-352.	0.1	0
98	Reply to: Climate did not drive Common Era Maldivian sea-level lowstands. Nature Geoscience, 2021, 14, 276-277.	5.4	0
99	Coral Systems. , 2021, , .		0
100	GEOPHYSICAL VISUALIZATION OF REEF ISLAND ACCRETION AND STRATIGRAPHIC ARCHITECTURE USING GROUND PENETRATING RADAR. , 2019, , .		0
101	Balancing Sustainable Coastal Management with Development in New Zealand. Strategies for Sustainability, 2020, , 97-118.	0.2	0