Daniel Smale

List of Publications by Year
in descending order

111 papers	13,104 citations	57719 44 h-index	24961 109 g-index
116 all docs	116 docs citations	116 times ranked	9344 citing authors

#	Article	IF	Citations
1	A hierarchical approach to defining marine heatwaves. Progress in Oceanography, 2016, 141, 227-238.	1.5	1,081
2	Longer and more frequent marine heatwaves over the past century. Nature Communications, 2018, 9, 1324.	5.8	1,081
3	Climate-driven regime shift of a temperate marine ecosystem. Science, 2016, 353, 169-172.	6.0	951
4	An extreme climatic event alters marine ecosystem structure in a global biodiversity hotspot. Nature Climate Change, 2013, 3, 78-82.	8.1	925
5	Marine heatwaves threaten global biodiversity and the provision of ecosystem services. Nature Climate Change, 2019, 9, 306-312.	8.1	883
6	The tropicalization of temperate marine ecosystems: climate-mediated changes in herbivory and community phase shifts. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20140846.	1.2	679
7	The future of Blue Carbon science. Nature Communications, 2019, 10, 3998.	5.8	406
8	Threats and knowledge gaps for ecosystem services provided by kelp forests: a northeast <scp>A</scp>tlantic perspective. Ecology and Evolution, 2013, 3, 4016-4038.	0.8	374
9	Categorizing and Naming Marine Heatwaves. Oceanography, 2018, 31, .	0.5	368
10	The role of kelp species as biogenic habitat formers in coastal marine ecosystems. Journal of Experimental Marine Biology and Ecology, 2017, 492, 81-98.	0.7	361
11	A decade of climate change experiments on marine organisms: procedures, patterns and problems. Global Change Biology, 2012, 18, 1491-1498.	4.2	355
12	Impacts of climate change in a global hotspot for temperate marine biodiversity and ocean warming. Journal of Experimental Marine Biology and Ecology, 2011, 400, 7-16.	0.7	350
13	A global assessment of marine heatwaves and their drivers. Nature Communications, 2019, 10, 2624.	5.8	337
14	Species traits and climate velocity explain geographic range shifts in an oceanâ€warming hotspot. Ecology Letters, 2015, 18, 944-953.	3.0	334
15	Extreme climatic event drives range contraction of a habitat-forming species. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20122829.	1.2	330
16	Projected Marine Heatwaves in the 21st Century and the Potential for Ecological Impact. Frontiers in Marine Science, 2019, 6, .	1.2	300
17	Impacts of ocean warming on kelp forest ecosystems. New Phytologist, 2020, 225, 1447-1454.	3.5	215
18	Defining and observing stages of climate-mediated range shifts in marine systems. Global Environmental Change, 2014, 26, 27-38.	3.6	207

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19	The future of the northeast <scp>A</scp>tlantic benthic flora in a high <scp>CO</scp>₂ world. Ecology and Evolution, 2014, 4, 2787-2798.	0.8	176
20	Keeping pace with marine heatwaves. Nature Reviews Earth & Environment, 2020, 1, 482-493.	12.2	175
21	Drivers and impacts of the most extreme marine heatwave events. Scientific Reports, 2020, 10, 19359.	1.6	155
22	Satellite-derived SST data as a proxy for water temperature in nearshore benthic ecology. Marine Ecology - Progress Series, 2009, 387, 27-37.	0.9	132
23	Socioeconomic impacts of marine heatwaves: Global issues and opportunities. Science, 2021, 374, eabj3593.	6.0	115
24	Biologists ignore ocean weather at their peril. Nature, 2018, 560, 299-301.	13.7	104
25	Resistance, Extinction, and Everything in Between â€“ The Diverse Responses of Seaweeds to Marine Heatwaves. Frontiers in Marine Science, 2019, 6, .	1.2	98
26	Carbon assimilation and transfer through kelp forests in the <scp>NE</scp> Atlantic is diminished under a warmer ocean climate. Global Change Biology, 2018, 24, 4386-4398.	4.2	96
27	The importance of phenotypic plasticity and local adaptation in driving intraspecific variability in thermal niches of marine macrophytes. Ecography, 2018, 41, 1469-1484.	2.1	90
28	Undaria pinnatifida: A case study to highlight challenges in marine invasion ecology and management. Ecology and Evolution, 2017, 7, 8624-8642.	0.8	84
29	Ice Scour Disturbance in Antarctic Waters. Science, 2008, 321, 371-371.	6.0	76
30	Global estimates of the extent and production of macroalgal forests. Global Ecology and Biogeography, 2022, 31, 1422-1439.	2.7	75
31	The rise of Laminaria ochroleuca in the Western English Channel (<scp>UK</scp>) and comparisons with its competitor and assemblage dominant Laminaria hyperborea. Marine Ecology, 2015, 36, 1033-1044.	0.4	73
32	Likely responses of the Antarctic benthos to climateâ€related changes in physical disturbance during the 21st century, based primarily on evidence from the West Antarctic Peninsula region. Ecography, 2008, 31, 289-305.	2.1	72
33	Can ecosystem functioning be maintained despite climateâ€driven shifts in species composition? Insights from novel marine forests. Journal of Ecology, 2019, 107, 91-104.	1.9	71
34	Linking environmental variables with regional- scale variability in ecological structure and standing stock of carbon within UK kelp forests. Marine Ecology - Progress Series, 2016, 542, 79-95.	0.9	71
35	Large-Scale Geographic Variation in Distribution and Abundance of Australian Deep-Water Kelp Forests. PLoS ONE, 2015, 10, e0118390.	1.1	66
36	Assemblage turnover and taxonomic sufficiency of subtidal macroalgae at multiple spatial scales. Journal of Experimental Marine Biology and Ecology, 2010, 384, 76-86.	0.7	61

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37	Appreciating interconnectivity between habitats is key to blue carbon management. Frontiers in Ecology and the Environment, 2018, 16, 71-73.	1.9	55
38	Environmental factors influencing primary productivity of the forest-forming kelp Laminaria hyperborea in the northeast Atlantic. Scientific Reports, 2020, 10, 12161.	1.6	55
39	Regional-scale benthic monitoring for ecosystem-based fisheries management (EBFM) using an autonomous underwater vehicle (AUV). ICES Journal of Marine Science, 2012, 69, 1108-1118.	1.2	54
40	Regional-scale variability in the response of benthic macroinvertebrate assemblages to a marine heatwave. Marine Ecology - Progress Series, 2017, 568, 17-30.	0.9	54
41	Patterns of marine bacterioplankton biodiversity in the surface waters of the Scotia Arc, Southern Ocean. FEMS Microbiology Ecology, 2012, 80, 452-468.	1.3	53
42	Distinguishing geographical range shifts from artefacts of detectability and sampling effort. Diversity and Distributions, 2015, 21, 13-22.	1.9	52
43	Climateâ€driven substitution of habitatâ€forming species leads to reduced biodiversity within a temperate marine community. Diversity and Distributions, 2018, 24, 1367-1380.	1.9	52
44	Localâ€scale climatic refugia offer sanctuary for a habitatâ€forming species during a marine heatwave. Journal of Ecology, 2021, 109, 1758-1773.	1.9	50
45	Evidence for different thermal ecotypes in range centre and trailing edge kelp populations. Journal of Experimental Marine Biology and Ecology, 2019, 514-515, 10-17.	0.7	48
46	The effectiveness of N₂O in depleting stratospheric ozone. Geophysical Research Letters, 2012, 39, .	1.5	46
47	Climate-driven shifts in species' distributions may exacerbate the impacts of storm disturbances on North-east Atlantic kelp forests. Marine and Freshwater Research, 2016, 67, 65.	0.7	46
48	Variability in kelp forest structure along a latitudinal gradient in ocean temperature. Journal of Experimental Marine Biology and Ecology, 2017, 486, 255-264.	0.7	46
49	The effects of warming on the ecophysiology of two co-existing kelp species with contrasting distributions. Oecologia, 2017, 183, 531-543.	0.9	44
50	The influence of depth, site exposure and season on the intensity of iceberg scouring in nearshore Antarctic waters. Polar Biology, 2007, 30, 769-779.	0.5	40
51	Continuous benthic community change along a depth gradient in Antarctic shallows: evidence of patchiness but not zonation. Polar Biology, 2007, 31, 189-198.	0.5	39
52	Ecological observations associated with an anomalous warming event at the Houtman Abrolhos Islands, Western Australia. Coral Reefs, 2012, 31, 441-441.	0.9	38
53	The structure of biogenic habitat and epibiotic assemblages associated with the global invasive kelp Undaria pinnatifida in comparison to native macroalgae. Biological Invasions, 2016, 18, 661-676.	1.2	37
54	Evaluating Operational AVHRR Sea Surface Temperature Data at the Coastline Using Benthic Temperature Loggers. Remote Sensing, 2018, 10, 925.	1.8	36

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55	Ice disturbance intensity structures benthic communities in nearshore Antarctic waters. Marine Ecology - Progress Series, 2007, 349, 89-102.	0.9	35
56	Benthic assemblage composition on subtidal reefs along a latitudinal gradient in Western Australia. Estuarine, Coastal and Shelf Science, 2010, 86, 83-92.	0.9	35
57	Turning on the Heat: Ecological Response to Simulated Warming in the Sea. PLoS ONE, 2011, 6, e16050.	1.1	35
58	Benthic community response to iceberg scouring at an intensely disturbed shallow water site at Adelaide Island, Antarctica. Marine Ecology - Progress Series, 2008, 355, 85-94.	0.9	32
59	Spatial variability in the diversity and structure of faunal assemblages associated with kelp holdfasts (Laminaria hyperborea) in the northeast Atlantic. PLoS ONE, 2018, 13, e0200411.	1.1	30
60	The influence of ice scour on benthic communities at three contrasting sites at Adelaide Island, Antarctica. Austral Ecology, 2007, 32, 878-888.	0.7	27
61	Scavenging in Antarctica: Intense variation between sites and seasons in shallow benthic necrophagy. Journal of Experimental Marine Biology and Ecology, 2007, 349, 405-417.	0.7	27
62	Marine richness and gradients at Deception Island, Antarctica. Antarctic Science, 2008, 20, 271-280.	0.5	26
63	Community development on subtidal temperate reefs: the influences of wave energy and the stochastic recruitment of a dominant kelp. Marine Biology, 2011, 158, 1757-1766.	0.7	26
64	Large scale variability in the structure of sessile invertebrate assemblages in artificial habitats reveals the importance of local-scale processes. Journal of Experimental Marine Biology and Ecology, 2017, 494, 10-19.	0.7	25
65	Marine heatwaves and optimal temperatures for microbial assemblage activity. FEMS Microbiology Ecology, 2017, 93, fiw243.	1.3	25
66	The influence of native macroalgal canopies on the distribution and abundance of the non-native kelp Undaria pinnatifida in natural reef habitats. Marine Biology, 2017, 164, 1.	0.7	23
67	Environmental and ecological factors influencing the spillover of the non-native kelp, Undaria pinnatifida, from marinas into natural rocky reef communities. Biological Invasions, 2018, 20, 1049-1072.	1.2	22
68	Monitoring marine macroalgae: the influence of spatial scale on the usefulness of biodiversity surrogates. Diversity and Distributions, 2010, 16, 985-995.	1.9	21
69	From fronds to fish: the use of indicators for ecological monitoring in marine benthic ecosystems, with case studies from temperate Western Australia. Reviews in Fish Biology and Fisheries, 2011, 21, 311-337.	2.4	21
70	Cumulative stress restricts niche filling potential of habitatâ€forming kelps in a future climate. Functional Ecology, 2018, 32, 288-299.	1.7	21
71	Multipleâ€scale interactions structure macroinvertebrate assemblages associated with kelp understory algae. Diversity and Distributions, 2020, 26, 1551-1565.	1.9	21
72	Examining the production, export, and immediate fate of kelp detritus on openâ€coast subtidal reefs in the Northeast Atlantic. Limnology and Oceanography, 2022, 67, .	1.6	21

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73	Heterogeneity within and among co-occurring foundation species increases biodiversity. Nature Communications, 2022, 13, 581.	5.8	21
74	Ecological traits of benthic assemblages in shallow Antarctic waters: does ice scour disturbance select for small, mobile, secondary consumers with high dispersal potential?. Polar Biology, 2008, 31, 1225-1231.	0.5	20
75	Subtidal macroalgal richness, diversity and turnover, at multiple spatial scales, along the southwestern Australian coastline. Estuarine, Coastal and Shelf Science, 2011, 91, 224-231.	0.9	20
76	Ocean warming and species range shifts affect rates of ecosystem functioning by altering consumerâ€“resource interactions. Ecology, 2021, 102, e03341.	1.5	19
77	Community responses to seawater warming are conserved across diverse biological groupings and taxonomic resolutions. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20170534.	1.2	18
78	The 2011 marine heat wave in Cockburn Sound, southwest Australia. Ocean Science, 2012, 8, 545-550.	1.3	17
79	The occurrence of a widespread marine invader, Didemnum perlucidum (Tunicata, Ascidiacea) in Western Australia. Biological Invasions, 2012, 14, 1325-1330.	1.2	17
80	Inconspicuous impacts: Widespread marine invader causes subtle but significant changes in native macroalgal assemblages. Ecosphere, 2019, 10, e02814.	1.0	16
81	The intensity of kelp harvesting shapes the population structure of the foundation species Lessonia trabeculata along the Chilean coastline. Marine Biology, 2021, 168, 1.	0.7	16
82	Patterns and drivers of understory macroalgal assemblage structure within subtidal kelp forests. Biodiversity and Conservation, 2020, 29, 4173-4192.	1.2	15
83	Linking habitat characteristics to abundance patterns of canopy-forming macroalgae and sea urchins in southwest Australia. Marine Biology Research, 2014, 10, 682-693.	0.3	14
84	Seasonal variability in the population structure of a habitat-forming kelp and a conspicuous gastropod grazer: Do blue-rayed limpets (Patella pellucida) exert top-down pressure on Laminaria digitata populations?. Journal of Experimental Marine Biology and Ecology, 2018, 506, 171-181.	0.7	14
85	Photophysiological Responses of Canopy-Forming Kelp Species to Short-Term Acute Warming. Frontiers in Marine Science, 2019, 6, .	1.2	14
86	Intraâ€Annual Variability in Responses of a Canopy Forming Kelp to Cumulative Low Tide Heat Stress: Implications for Populations at the Trailing Range Edge. Journal of Phycology, 2020, 56, 146-158.	1.0	14
87	Nonâ€native species outperform natives in coastal marine ecosystems subjected to warming and freshening events. Global Ecology and Biogeography, 2021, 30, 1698-1712.	2.7	14
88	Another Decade of Marine Climate Change Experiments: Trends, Progress and Knowledge Gaps. Frontiers in Marine Science, 2021, 8, .	1.2	14
89	Short-term in situ warming influences early development of sessile assemblages. Marine Ecology - Progress Series, 2012, 453, 129-136.	0.9	13
90	Disentangling the impacts of heat wave magnitude, duration and timing on the structure and diversity of sessile marine assemblages. PeerJ, 2015, 3, e863.	0.9	13

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91	Quantifying habitat provisioning at macroalgal cultivation sites. Reviews in Aquaculture, 2022, 14, 1671-1694.	4.6	13
92	Comparison of Two Methods for Measuring Sea Surface Temperature When Surfing. Oceans, 2020, 1, 6-26.	0.6	11
93	Niche and neutral assembly mechanisms contribute to latitudinal diversity gradients in reef fishes. Journal of Biogeography, 2021, 48, 2683-2698.	1.4	11
94	Examining the influence of regionalâ€scale variability in temperature and light availability on the depth distribution of subtidal kelp forests. Limnology and Oceanography, 2022, 67, 314-328.	1.6	11
95	Climateâ€driven substitution of foundation species causes breakdown of a facilitation cascade with potential implications for higher trophic levels. Journal of Ecology, 2022, 110, 2132-2144.	1.9	11
96	Spatial variability in the distribution of dominant shallow-water benthos at Adelaide Island, Antarctica. Journal of Experimental Marine Biology and Ecology, 2008, 357, 140-148.	0.7	10
97	Identifying niche and fitness dissimilarities in invaded marine macroalgal canopies within the context of contemporary coexistence theory. Scientific Reports, 2019, 9, 8816.	1.6	9
98	Ecological performance differs between range centre and trailing edge populations of a cold-water kelp: implications for estimating net primary productivity. Marine Biology, 2020, 167, 1.	0.7	9
99	Population structure of the purple sea urchin Heliocidaris erythrogramma along a latitudinal gradient in south-west Australia. Journal of the Marine Biological Association of the United Kingdom, 2014, 94, 1033-1040.	0.4	8
100	Consistency and Variation in the Kelp Microbiota: Patterns of Bacterial Community Structure Across Spatial Scales. Microbial Ecology, 2023, 85, 1265-1275.	1.4	8
101	Extreme spatial variability in sessile assemblage development in subtidal habitats off southwest Australia (southeast Indian Ocean). Journal of Experimental Marine Biology and Ecology, 2012, 438, 76-83.	0.7	7
102	The influence of light and temperature on detritus degradation rates for kelp species with contrasting thermal affinities. Marine Environmental Research, 2022, 173, 105529.	1.1	7
103	Between-habitat variability in the population dynamics of a global marine invader may drive management uncertainty. Marine Pollution Bulletin, 2018, 137, 488-500.	2.3	6
104	Removal treatments alter the recruitment dynamics of a global marine invader - Implications for management feasibility. Marine Environmental Research, 2018, 140, 322-331.	1.1	6
105	Spatiotemporal variability in the structure of seagrass meadows and associated macrofaunal assemblages in southwest England (UK): Using citizen science to benchmark ecological pattern. Ecology and Evolution, 2019, 9, 3958-3972.	0.8	6
106	Spatial variation in the structure of overwintering, remnant Saccorhiza polyschides sporophytes and their associated assemblages. Journal of the Marine Biological Association of the United Kingdom, 2021, 101, 639-648.	0.4	6
107	Multi-scale patterns of spatial variability in sessile assemblage structure do not alter predictably with development time. Marine Ecology - Progress Series, 2013, 482, 29-41.	0.9	5
108	Regional-scale patterns of mobile invertebrate assemblage structure on artificial habitats off Western Australia. Journal of Experimental Marine Biology and Ecology, 2014, 453, 43-53.	0.7	4

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109	Hierarchical genetic structuring in the cool boreal kelp, Laminaria digitata: implications for conservation and management. ICES Journal of Marine Science, 2020, 77, 1906-1913.	1.2	4
110	Spatial variability in the structure of intertidal crab and gastropod assemblages within the Seychelles Archipelago (Indian Ocean). Journal of Sea Research, 2012, 69, 8-15.	0.6	3
111	Likely responses of the Antarctic benthos to climate-related changes in physical disturbance during the 21st century, based primarily on evidence from the West Antarctic Peninsula region. Ecography, 2008, .	2.1	0