Joshua S Madin

List of Publications by Year
in descending order

96 papers	5,339 citations	81900 39 h-index	95266 68 g-index
107 all docs	107 docs citations	107 times ranked	7854 citing authors

#	Article	IF	Citations
1	Global warming impairs stockâ€“recruitment dynamics of corals. Nature, 2019, 568, 387-390.	27.8	378
2	BioTIME: A database of biodiversity time series for the Anthropocene. Global Ecology and Biogeography, 2018, 27, 760-786.	5.8	289
3	Ecological consequences of major hydrodynamic disturbances on coral reefs. Nature, 2006, 444, 477-480.	27.8	285
4	An ontology for describing and synthesizing ecological observation data. Ecological Informatics, 2007, 2, 279-296.	5.2	209
5	The Coral Trait Database, a curated database of trait information for coral species from the global oceans. Scientific Data, 2016, 3, 160017.	5.3	189
6	Ecological traits influencing range expansion across large oceanic dispersal barriers: insights from tropical Atlantic reef fishes. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 1033-1040.	2.6	177
7	Advancing ecological research with ontologies. Trends in Ecology and Evolution, 2008, 23, 159-168.	8.7	174
8	A Trait-Based Approach to Advance Coral Reef Science. Trends in Ecology and Evolution, 2016, 31, 419-428.	8.7	161
9	Adult and larval traits as determinants of geographic range size among tropical reef fishes. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16498-16502.	7.1	157
10	Open Science principles for accelerating trait-based science across the Tree of Life. Nature Ecology and Evolution, 2020, 4, 294-303.	7.8	144
11	Mechanical vulnerability explains sizeâ€dependent mortality of reef corals. Ecology Letters, 2014, 17, 1008-1015.	6.4	142
12	Global Gradients of Coral Exposure to Environmental Stresses and Implications for Local Management. PLoS ONE, 2011, 6, e23064.	2.5	113
13	Landscape of fear visible from space. Scientific Reports, 2011, 1, 14.	3.3	106
14	Pole-ward range expansion of Acropora spp. along the east coast of Australia. Coral Reefs, 2012, 31, 1063-1063.	2.2	106
15	Biogeographical disparity in the functional diversity and redundancy of corals. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3084-3089.	7.1	98
16	Coral larvae are poor swimmers and require fine-scale reef structure to settle. Scientific Reports, 2017, 7, 2249.	3.3	92
17	Human deforestation outweighs future climate change impacts of sedimentation on coral reefs. Nature Communications, 2013, 4, 1986.	12.8	90
18	Faunal breaks and species composition of Indo-Pacific corals: the role of plate tectonics, environment and habitat distribution. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20130818.	2.6	87

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19	Calcification, Storm Damage and Population Resilience of Tabular Corals under Climate Change. PLoS ONE, 2012, 7, e46637.	2.5	82
20	A decline in bleaching suggests that depth can provide a refuge from global warming in most coral taxa. Marine Ecology - Progress Series, 2018, 603, 257-264.	1.9	82
21	High-performance spider webs: integrating biomechanics, ecology and behaviour. Journal of the Royal Society Interface, 2011, 8, 457-471.	3.4	79
22	A generic structure for plant trait databases. Methods in Ecology and Evolution, 2011, 2, 202-213.	5.2	78
23	Statistical Independence of Escalatory Ecological Trends in Phanerozoic Marine Invertebrates. Science, 2006, 312, 897-900.	12.6	77
24	Mechanical limitations of reef corals during hydrodynamic disturbances. Coral Reefs, 2005, 24, 630-635.	2.2	74
25	Fishing Indirectly Structures Macroalgal Assemblages by Altering Herbivore Behavior. American Naturalist, 2010, 176, 785-801.	2.1	72
26	Fecundity and the demographic strategies of coral morphologies. Ecology, 2016, 97, 3485-3493.	3.2	71
27	A simple, fast, and repeatable survey method for underwater visual 3D benthic mapping and monitoring. Ecology and Evolution, 2017, 7, 1770-1782.	1.9	69
28	Moving to 3D: relationships between coral planar area, surface area and volume. PeerJ, 2018, 6, e4280.	2.0	61
29	Morphological traits can track coral reef responses to the Anthropocene. Functional Ecology, 2019, 33, 962-975.	3.6	59
30	A synthesis of bacterial and archaeal phenotypic trait data. Scientific Data, 2020, 7, 170.	5.3	59
31	Scaling water motion on coral reefs: from regional to organismal scales. Coral Reefs, 2006, 25, 635-644.	2.2	58
32	Linking coral river runoff proxies with climate variability, hydrology and land-use in Madagascar catchments. Marine Pollution Bulletin, 2012, 64, 2047-2059.	5.0	55
33	How much time can herbivore protection buy for coral reefs under realistic regimes of hurricanes and coral bleaching?. Global Change Biology, 2011, 17, 2033-2048.	9.5	54
34	Predicting IUCN Extinction Risk Categories for the World's Data Deficient Groupers (Teleostei:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 14	5.7	54
35	Allometric growth in reef-building corals. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20170053.	2.6	51
36	Climate-mediated mechanical changes to post-disturbance coral assemblages. Biology Letters, 2008, 4, 490-493.	2.3	50

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37	Characterization of measurement errors using structureâ€fromâ€motion and photogrammetry to measure marine habitat structural complexity. Ecology and Evolution, 2017, 7, 5669-5681.	1.9	49
38	Evaluating the causal basis of ecological success within the scleractinia: an integral projection model approach. Marine Biology, 2014, 161, 2719-2734.	1.5	48
39	A geometric basis for surface habitat complexity and biodiversity. Nature Ecology and Evolution, 2020, 4, 1495-1501.	7.8	47
40	Quantifying coral morphology. Coral Reefs, 2019, 38, 1281-1292.	2.2	46
41	Coralâ€bleaching responses to climate change across biological scales. Global Change Biology, 2022, 28, 4229-4250.	9.5	44
42	Climate change transforms the functional identity of Mediterranean coralligenous assemblages. Ecology Letters, 2021, 24, 1038-1051.	6.4	43
43	Cell size, genome size, and maximum growth rate are nearâ€independent dimensions of ecological variation across bacteria and archaea. Ecology and Evolution, 2021, 11, 3956-3976.	1.9	43
44	Colour in insect thermoregulation: Empirical and theoretical tests in the colour-changing grasshopper, Kosciuscola tristis. Journal of Insect Physiology, 2013, 59, 81-90.	2.0	42
45	Cumulative effects of cyclones and bleaching on coral cover and species richness at Lizard Island. Marine Ecology - Progress Series, 2018, 604, 263-268.	1.9	42
46	Differential establishment potential of species predicts a shift in coral assemblage structure across a biogeographic barrier. Ecography, 2015, 38, 1225-1234.	4.5	38
47	An Indo-Pacific coral spawning database. Scientific Data, 2021, 8, 35.	5.3	34
48	Macroecological relationships between coral speciesâ€™ traits and disease potential. Coral Reefs, 2011, 30, 73-84.	2.2	29
49	Integrating physiological and biomechanical drivers of population growth over environmental gradients on coral reefs. Journal of Experimental Biology, 2012, 215, 968-976.	1.7	28
50	The full extent of the global coral reef crisis. Conservation Biology, 2015, 29, 1724-1726.	4.7	27
51	Seafarers or castaways: ecological traits associated with rafting dispersal in tropical reef fishes. Journal of Biogeography, 2015, 42, 2323-2333.	3.0	27
52	Contrasting patterns of changes in abundance following a bleaching event between juvenile and adult scleractinian corals. Coral Reefs, 2018, 37, 527-532.	2.2	25
53	Partitioning colony size variation into growth and partial mortality. Biology Letters, 2020, 16, 20190727.	2.3	24
54	Climateâ€driven shift in coral morphological structure predicts decline of juvenile reef fishes. Global Change Biology, 2020, 26, 557-567.	9.5	23

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55	Large orb-webs adapted to maximise total biomass not rare, large prey. Scientific Reports, 2015, 5, 14121.	3.3	22
56	Trait dimensions in bacteria and archaea compared to vascular plants. Ecology Letters, 2021, 24, 1487-1504.	6.4	21
57	Environmental tolerance governs the presence of reef corals at latitudes beyond reef growth. Global Ecology and Biogeography, 2016, 25, 979-987.	5.8	20
58	Species traits as indicators of coral bleaching. Coral Reefs, 2018, 37, 791-800.	2.2	20
59	Towards a macroscope: Leveraging technology to transform the breadth, scale and resolution of macroecological data. Global Ecology and Biogeography, 2019, 28, 1937-1948.	5.8	20
60	Decentralize, adapt and cooperate. Nature, 2010, 465, 292-293.	27.8	19
61	Negligible effect of competition on coral colony growth. Ecology, 2018, 99, 1347-1356.	3.2	19
62	Aerobic bacteria and archaea tend to have larger and more versatile genomes. Oikos, 2021, 130, 501-511.	2.7	19
63	No evidence for tropicalization of coral assemblages in a subtropical climate change hot spot. Coral Reefs, 2021, 40, 1451-1461.	2.2	17
64	Using Traits to Assess Nontransitivity of Interactions among Coral Species. American Naturalist, 2017, 190, 420-429.	2.1	16
65	Resolving the depth zonation paradox in reefâ€building corals. Ecology, 2019, 100, e02761.	3.2	16
66	A Conceptual Modeling Framework for Expressing Observational Data Semantics. Lecture Notes in Computer Science, 2008, , 41-54.	1.3	16
67	AnimalTraits - a curated animal trait database for body mass, metabolic rate and brain size. Scientific Data, 2022, 9, .	5.3	15
68	Scope for latitudinal extension of reef corals is species specific. Frontiers of Biogeography, 2016, 8, .	1.8	14
69	Factors Limiting the Range Extension of Corals into High-Latitude Reef Regions. Diversity, 2021, 13, 632.	1.7	14
70	Spatial variation in mechanical properties of coral reef substrate and implications for coral colony integrity. Coral Reefs, 2013, 32, 173-179.	2.2	13
71	Improving Data Discovery for Metadata Repositories through Semantic Search. , 2009, , .		12
72	Dead shell assemblages faithfully record living molluscan assemblages at One Tree Reef. Palaeogeography, Palaeoclimatology, Palaeoecology, 2016, 457, 158-169.	2.3	12

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73	Do Behavioral Foraging Responses of Prey to Predators Function Similarly in Restored and Pristine Foodwebs?. PLoS ONE, 2012, 7, e32390.	2.5	12
74	How does a widespread reef coral maintain a population in an isolated environment?. Marine Ecology - Progress Series, 2018, 594, 85-94.	1.9	12
75	Effects of tropical storms on the demography of reef corals. Marine Ecology - Progress Series, 2018, 606, 29-38.	1.9	12
76	ENCOUNTER FREQUENCY DOES NOT PREDICT PREDATION FREQUENCY IN TROPICAL DEAD-SHELL ASSEMBLAGES. Palaios, 2015, 30, 818-826.	1.3	11
77	Multi-Year Viability of a Reef Coral Population Living on Mangrove Roots Suggests an Important Role for Mangroves in the Broader Habitat Mosaic of Corals. Frontiers in Marine Science, 2020, 7, .	2.5	11
78	Owlifier: Creating OWL-DL ontologies from simple spreadsheet-based knowledge descriptions. Ecological Informatics, 2010, 5, 19-25.	5.2	10
79	Incongruence between life-history traits and conservation status in reef corals. Coral Reefs, 2020, 39, 271-279.	2.2	10
80	Marine reserves shape seascapes on scales visible from space. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20190053.	2.6	9
81	Environmental factors limiting fertilisation and larval success in corals. Coral Reefs, 2016, 35, 1433-1440.	2.2	8
82	Strategic traits of bacteria and archaea vary widely within substrate-use groups. FEMS Microbiology Ecology, 2021, 97, .	2.7	8
83	Indirectly driven knowledge modelling in ecology. International Journal of Metadata, Semantics and Ontologies, 2008, 3, 210.	0.2	7
84	Far away from home: the occurrence of the Indo-Pacific bannerfish <I>Heniochus acuminatus</I> (Pisces: Chaetodontidae) in the Atlantic. Bulletin of Marine Science, 2014, 90, 741-744.	0.8	7
85	A Field Primer for Monitoring Benthic Ecosystems using Structure-from-Motion Photogrammetry. Journal of Visualized Experiments, 2021, , .	0.3	7
86	The contribution of corals to reef structural complexity in KÄ•neâ€˜ohe Bay. Coral Reefs, 2021, 40, 1679-1685.	2.2	7
87	Predators, facilitators, or both? Re-evaluating an apparent predatorâ€“prey relationship. Marine Ecology - Progress Series, 2011, 431, 299-302.	1.9	5
88	Novel communities are a risky business. Science, 2020, 370, 164-165.	12.6	5
89	Latitude and protection affect decadal trends in reef trophic structure over a continental scale. Ecology and Evolution, 2020, 10, 6954-6966.	1.9	5
90	Tissue biomass trades off with growth but not reproduction in corals. Coral Reefs, 2020, 39, 1027-1037.	2.2	5

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91	Shifting fish consumption preferences can impact coral reef resilience in the Maldives: a case study. Marine Policy, 2021, 134, 104773.	3.2	5
92	Optimal web investment in sub-optimal foraging conditions. Die Naturwissenschaften, 2012, 99, 65-70.	1.6	4
93	Very high coral cover at 36Â°S on the east coast of Australia. Coral Reefs, 2015, 34, 327-327.	2.2	3
94	A tropical cleaner wrasse finds new clients at the frontier. Frontiers in Ecology and the Environment, 2016, 14, 110-111.	4.0	3
95	PASSIVE DEFENSIVE TRAITS ARE NOT GOOD PREDICTORS OF PREDATION FOR INFAUNAL REEF BIVALVES. Palaios, 2016, 31, 607-615.	1.3	3
96	Climate Change: Increasing Storm Activity. Encyclopedia of Earth Sciences Series, 2011, , 218-221.	0.1	2