Ruth D Gates

List of Publications by Year
in descending order

123 papers	11,480 citations	38742 50 h-index	31849 101 g-index
136 all docs	136 docs citations	136 times ranked	9999 citing authors

#	Article	IF	Citations
1	The Marine Microbial Eukaryote Transcriptome Sequencing Project (MMETSP): Illuminating the Functional Diversity of Eukaryotic Life in the Oceans through Transcriptome Sequencing. PLoS Biology, 2014, 12, e1001889.	5.6	885
2	Building coral reef resilience through assisted evolution. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2307-2313.	7.1	709
3	Capacity shortfalls hinder the performance of marine protected areas globally. Nature, 2017, 543, 665-669.	27.8	630
4	The coral core microbiome identifies rare bacterial taxa as ubiquitous endosymbionts. ISME Journal, 2015, 9, 2261-2274.	9.8	548
5	The Effect of Ocean Acidification on Calcifying Organisms in Marine Ecosystems: An Organism-to-Ecosystem Perspective. Annual Review of Ecology, Evolution, and Systematics, 2010, 41, 127-147.	8.3	434
6	A new Symbiodinium clade (Dinophyceae) from soritid foraminifera in Hawaiâ€™i. Molecular Phylogenetics and Evolution, 2010, 56, 492-497.	2.7	420
7	Shifting paradigms in restoration of the world's coral reefs. Global Change Biology, 2017, 23, 3437-3448.	9.5	351
8	Defining the Core Microbiome in Coralsâ€™ Microbial Soup. Trends in Microbiology, 2017, 25, 125-140.	7.7	281
9	Functional diversity in coralâ€“dinoflagellate symbiosis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 9256-9261.	7.1	268
10	Are infectious diseases really killing corals? Alternative interpretations of the experimental and ecological data. Journal of Experimental Marine Biology and Ecology, 2007, 346, 36-44.	1.5	253
11	Ocean Solutions to Address Climate Change and Its Effects on Marine Ecosystems. Frontiers in Marine Science, 2018, 5, .	2.5	248
12	The Physiological Mechanisms of Acclimatization in Tropical Reef Corals. American Zoologist, 1999, 39, 30-43.	0.7	247
13	The future of coral reefs: a microbial perspective. Trends in Ecology and Evolution, 2010, 25, 233-240.	8.7	242
14	Photoacclimatization by the coral Montastraea cavernosa in the mesophotic zone: light, food, and genetics. Ecology, 2010, 91, 990-1003.	3.2	227
15	Conservation genetics and the resilience of reef-building corals. Molecular Ecology, 2006, 15, 3863-3883.	3.9	203
16	Preconditioning in the reef-building coral <i>Pocillopora damicornis</i> and the potential for trans-generational acclimatization in coral larvae under future climate change conditions. Journal of Experimental Biology, 2015, 218, 2365-2372.	1.7	199
17	Ocean acidification influences host <scp>DNA</scp> methylation and phenotypic plasticity in environmentally susceptible corals. Evolutionary Applications, 2016, 9, 1165-1178.	3.1	196
18	Clade D<i>Symbiodinium</i>in Scleractinian Corals: A â€œNuggetâ€•of Hope, a Selfish Opportunist, an Ominous Sign, or All of the Above?. Journal of Marine Biology, 2011, 2011, 1-9.	1.0	189

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19	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
20	Endosymbiotic flexibility associates with environmental sensitivity in scleractinian corals. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 4352-4361.	2.6	177
21	Comparative genomics explains the evolutionary success of reef-forming corals. ELife, 2016, 5, .	6.0	169
22	GeoSymbio: a hybrid, cloudâ€based web application of global geospatial bioinformatics and ecoinformatics for <i>Symbiodinium</i>â€“host symbioses. Molecular Ecology Resources, 2012, 12, 369-373.	4.8	168
23	The Vulnerability and Resilience of Reef-Building Corals. Current Biology, 2017, 27, R528-R540.	3.9	156
24	Riskâ€sensitive planning for conserving coral reefs under rapid climate change. Conservation Letters, 2018, 11, e12587.	5.7	151
25	Multi-gene analysis of<i>Symbiodinium</i>dinoflagellates: a perspective on rarity, symbiosis, and evolution. PeerJ, 2014, 2, e394.	2.0	127
26	Recognizing diversity in coral symbiotic dinoflagellate communities. Molecular Ecology, 2007, 16, 1127-1134.	3.9	109
27	Osmoregulation in anthozoanâ€“dinoflagellate symbiosis. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2007, 147, 1-10.	1.8	108
28	Coral bleaching from a single cell perspective. ISME Journal, 2018, 12, 1558-1567.	9.8	107
29	Variation in Symbiodinium ITS2 Sequence Assemblages among Coral Colonies. PLoS ONE, 2011, 6, e15854.	2.5	101
30	From Parent to Gamete: Vertical Transmission of Symbiodinium (Dinophyceae) ITS2 Sequence Assemblages in the Reef Building Coral Montipora capitata. PLoS ONE, 2012, 7, e38440.	2.5	100
31	The distribution of the thermally tolerant symbiont lineage (<i><scp>S</scp>ymbiodinium</i> clade D) in corals from <scp>H</scp>awaii: correlations with host and the history of ocean thermal stress. Ecology and Evolution, 2013, 3, 1317-1329.	1.9	95
32	Molluscan engrailed expression, serial organization, and shell evolution. Evolution & Development, 2000, 2, 340-347.	2.0	93
33	COMPARISON OF ENDOSYMBIOTIC AND FREE-LIVING SYMBIODINIUM (DINOPHYCEAE) DIVERSITY IN A HAWAIIAN REEF ENVIRONMENT1. Journal of Phycology, 2010, 46, 53-65.	2.3	91
34	Using high-throughput sequencing of ITS2 to describe <i>Symbiodinium</i> metacommunities in St. John, US Virgin Islands. PeerJ, 2017, 5, e3472.	2.0	88
35	Identifying and Characterizing Alternative Molecular Markers for the Symbiotic and Free-Living Dinoflagellate Genus Symbiodinium. PLoS ONE, 2012, 7, e29816.	2.5	84
36	Variability of Symbiodinium Communities in Waters, Sediments, and Corals of Thermally Distinct Reef Pools in American Samoa. PLoS ONE, 2015, 10, e0145099.	2.5	81

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37	Ultraviolet radiation effects on the behavior and recruitment of larvae from the reef coral Porites astreoides. Marine Biology, 2006, 148, 503-512.	1.5	80
38	Diversity in populations of freeâ€living Symbiodinium from a Caribbean and Pacific reef. Limnology and Oceanography, 2008, 53, 1853-1861.	3.1	77
39	Persistence and Change in Community Composition of Reef Corals through Present, Past, and Future Climates. PLoS ONE, 2014, 9, e107525.	2.5	75
40	Transmission Mode Predicts Specificity and Interaction Patterns in Coral-Symbiodinium Networks. PLoS ONE, 2012, 7, e44970.	2.5	72
41	Corals' microbial sentinels. Science, 2016, 352, 1518-1519.	12.6	71
42	Coral-virus interactions: A double-edged sword?. Symbiosis, 2009, 47, 1-8.	2.3	70
43	Dynamic symbioses reveal pathways to coral survival through prolonged heatwaves. Nature Communications, 2020, 11, 6097.	12.8	67
44	Symbiotic specificity, association patterns, and function determine community responses to global changes: defining critical research areas for coralâ€<i>Symbiodinium</i> symbioses. Global Change Biology, 2013, 19, 3306-3316.	9.5	66
45	Effects of bleaching-associated mass coral mortality on reef structural complexity across a gradient of local disturbance. Scientific Reports, 2019, 9, 2512.	3.3	65
46	A dynamic bioenergetic model for coral- Symbiodinium symbioses and coral bleaching as an alternate stable state. Journal of Theoretical Biology, 2017, 431, 49-62.	1.7	63
47	Metabolomic signatures of increases in temperature and ocean acidification from the reef-building coral, Pocillopora damicornis. Metabolomics, 2016, 12, 1.	3.0	62
48	The nature and taxonomic composition of coral symbiomes as drivers of performance limits in scleractinian corals. Journal of Experimental Marine Biology and Ecology, 2011, 408, 94-101.	1.5	59
49	Intracellular pH and its response to CO2-driven seawater acidification in symbiotic <i>versus</i> non-symbiotic coral cells. Journal of Experimental Biology, 2014, 217, 1963-9.	1.7	59
50	Molecular Delineation of Species in the Coral Holobiont. Advances in Marine Biology, 2012, 63, 1-65.	1.4	58
51	The Early Expansion and Evolutionary Dynamics of POU Class Genes. Molecular Biology and Evolution, 2014, 31, 3136-3147.	8.9	58
52	A framework for identifying and characterising coral reef â€œoasesâ€•against a backdrop of degradation. Journal of Applied Ecology, 2018, 55, 2865-2875.	4.0	58
53	sine oculis in basal Metazoa. Development Genes and Evolution, 2004, 214, 342-51.	0.9	54
54	Coral community resilience to successive years of bleaching in KÄneâ€˜ohe Bay, Hawaiâ€˜i. Coral Reefs, 2020, 39, 757-769.	2.2	54

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55	Temporal and spatial expression patterns of biomineralization proteins during early development in the stony coral <i>Pocillopora damicornis</i>. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20160322.	2.6	53
56	Genome analysis of the rice coral Montipora capitata. Scientific Reports, 2019, 9, 2571.	3.3	53
57	Cultivating endosymbionts â€" Host environmental mimics support the survival of Symbiodinium C15 ex hospite. Journal of Experimental Marine Biology and Ecology, 2012, 413, 169-176.	1.5	52
58	Spatial variation in the biochemical and isotopic composition of corals during bleaching and recovery. Limnology and Oceanography, 2019, 64, 2011-2028.	3.1	52
59	Divergent symbiont communities determine the physiology and nutrition of a reef coral across a light-availability gradient. ISME Journal, 2020, 14, 945-958.	9.8	50
60	Evaluating the causal basis of ecological success within the scleractinia: an integral projection model approach. Marine Biology, 2014, 161, 2719-2734.	1.5	48
61	Correspondence of coral holobiont metabolome with symbiotic bacteria, archaea and <i>Symbiodinium</i> communities. Environmental Microbiology Reports, 2017, 9, 310-315.	2.4	47
62	Azooxanthellate? Most Hawaiian black corals contain <i>Symbiodinium</i>. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 1323-1328.	2.6	39
63	Species-specific differences in thermal tolerance may define susceptibility to intracellular acidosis in reef corals. Marine Biology, 2015, 162, 717-723.	1.5	39
64	Improving the ecological relevance of toxicity tests on scleractinian corals: Influence of season, life stage, and seawater temperature. Environmental Pollution, 2016, 213, 240-253.	7.5	39
65	Application of 1H-NMR Metabolomic Profiling for Reef-Building Corals. PLoS ONE, 2014, 9, e111274.	2.5	38
66	Evaluating the temporal stability of stress-activated protein kinase and cytoskeleton gene expression in the Pacific reef corals Pocillopora damicornis and Seriatopora hystrix. Journal of Experimental Marine Biology and Ecology, 2010, 395, 215-222.	1.5	37
67	Betaines and Dimethylsulfoniopropionate as Major Osmolytes in Cnidaria with Endosymbiotic Dinoflagellates. Physiological and Biochemical Zoology, 2010, 83, 167-173.	1.5	37
68	Are all eggs created equal? A case study from the Hawaiian reef-building coral Montipora capitata. Coral Reefs, 2013, 32, 137-152.	2.2	37
69	Diversity in skeletal architecture influences biological heterogeneity and Symbiodinium habitat in corals. Zoology, 2013, 116, 262-269.	1.2	36
70	High-frequency temperature variability mirrors fixed differences in thermal limits of the massive coral <i>Porites lobata</i> (Dana, 1846). Journal of Experimental Biology, 2018, 221, .	1.7	36
71	Environmentally-induced parental or developmental conditioning influences coral offspring ecological performance. Scientific Reports, 2020, 10, 13664.	3.3	36
72	Coral bleaching response is unaltered following acclimatization to reefs with distinct environmental conditions. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	35

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73	Gene expression normalization in a dualâ€compartment system: a realâ€time quantitative polymerase chain reaction protocol for symbiotic anthozoans. Molecular Ecology Resources, 2009, 9, 462-470.	4.8	34
74	How do we overcome abrupt degradation of marine ecosystems and meet the challenge of heat waves and climate extremes?. Global Change Biology, 2020, 26, 343-354.	9.5	34
75	Short-Term Thermal Acclimation Modifies the Metabolic Condition of the Coral Holobiont. Frontiers in Marine Science, 2018, 5, .	2.5	33
76	Coral Bleaching Susceptibility Is Predictive of Subsequent Mortality Within but Not Between Coral Species. Frontiers in Ecology and Evolution, 2020, 8, .	2.2	33
77	The influence of an anthozoan â€œhost factorâ€•on the physiology of a symbiotic dinoflagellate. Journal of Experimental Marine Biology and Ecology, 1999, 232, 241-259.	1.5	32
78	The effect of temperature on the size and population density of dinoflagellates in larvae of the reef coral Porites astreoides. Invertebrate Biology, 2005, 124, 185-193.	0.9	30
79	Has Coral Bleaching Delayed Our Understanding of Fundamental Aspects of Coralâ€“Dinoflagellate Symbioses?. BioScience, 2003, 53, 976.	4.9	29
80	Generalist dinoflagellate endosymbionts and host genotype diversity detected from mesophotic (67-100 m depths) coral Leptoseris. BMC Ecology, 2009, 9, 21.	3.0	29
81	Increased diversity and concordant shifts in community structure of coralâ€associated Symbiodiniaceae and bacteria subjected to chronic human disturbance. Molecular Ecology, 2020, 29, 2477-2491.	3.9	26
82	Preconditioning improves bleaching tolerance in the reefâ€building coral <i>Pocillopora acuta</i> through modulations in the programmed cell death pathways. Molecular Ecology, 2021, 30, 3560-3574.	3.9	26
83	Assessing fertilization success of the coral Montipora capitata under copper exposure: Does the night of spawning matter?. Marine Pollution Bulletin, 2013, 66, 221-224.	5.0	25
84	Shifting baselines: Physiological legacies contribute to the response of reef corals to frequent heatwaves. Functional Ecology, 2021, 35, 1366-1378.	3.6	25
85	Vectored introductions of marine endosymbiotic dinoflagellates into Hawaii. Biological Invasions, 2008, 10, 579-583.	2.4	23
86	The effects of environmental history and thermal stress on coral physiology and immunity. Marine Biology, 2018, 165, 1.	1.5	23
87	Effects of Temperature and <i>p</i>CO₂ on Population Regulation of <i>Symbiodinium</i> spp. in a Tropical Reef Coral. Biological Bulletin, 2017, 232, 123-139.	1.8	22
88	Phenotypic plasticity of the coral Porites rus: Acclimatization responses to a turbid environment. Journal of Experimental Marine Biology and Ecology, 2012, 434-435, 71-80.	1.5	20
89	Geographic structure and host specificity shape the community composition of symbiotic dinoflagellates in corals from the Northwestern Hawaiian Islands. Coral Reefs, 2015, 34, 1075-1086.	2.2	20
90	Metabolite pools of the reef building coral Montipora capitata are unaffected by Symbiodiniaceae community composition. Coral Reefs, 2020, 39, 1727-1737.	2.2	19

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91	Intrapopulation adaptive variance supports thermal tolerance in a reef-building coral. Communications Biology, 2022, 5, 486.	4.4	18
92	Sedimentation and the Reproductive Biology of the Hawaiian Reef-Building Coral <i>Montipora capitata</i>. Biological Bulletin, 2014, 226, 8-18.	1.8	17
93	Developmental Genes and the Reconstruction of Metazoan Evolution--Implications of Evolutionary Loss, Limits on Inference of Ancestry and Type 2 Errors. Integrative and Comparative Biology, 2003, 43, 11-18.	2.0	16
94	Tissue fusion and enhanced genotypic diversity support the survival of Pocillopora acuta coral recruits under thermal stress. Coral Reefs, 2021, 40, 447-458.	2.2	16
95	Amino acid <scp>Î´¹³C</scp> and <scp>Î´¹⁵N</scp> analyses reveal distinct speciesâ€specific patterns of trophic plasticity in a marine symbiosis. Limnology and Oceanography, 2021, 66, 2033-2050.	3.1	16
96	Whoâ€™s there? â€“ First morphological and DNA barcoding catalogue of the shallow Hawaiâ€™ian sponge fauna. PLoS ONE, 2017, 12, e0189357.	2.5	15
97	Ecophysiology of mesophotic reefâ€building corals in Hawaiâ€˜i is influenced by symbiontâ€“host associations, photoacclimatization, trophic plasticity, and adaptation. Limnology and Oceanography, 2019, 64, 1980-1995.	3.1	15
98	Chronic disturbance modulates symbiont (Symbiodiniaceae) beta diversity on a coral reef. Scientific Reports, 2020, 10, 4492.	3.3	13
99	Feeding and thermal conditioning enhance coral temperature tolerance in juvenile<i>Pocillopora acuta</i>. Royal Society Open Science, 2021, 8, 210644.	2.4	13
100	Gene Fishing: The Use of a Simple Protocol to Isolate Multiple Homeodomain Classes from Diverse Invertebrate Taxa. Journal of Molecular Evolution, 2003, 56, 509-516.	1.8	12
101	The Effect of a Sublethal Temperature Elevation on the Structure of Bacterial Communities Associated with the CoralPorites compressa. Journal of Marine Biology, 2011, 2011, 1-9.	1.0	12
102	Ecotoxicological approach for assessing the contamination of a Hawaiian coral reef ecosystem (Honolua Bay, Maui) by metals and a metalloid. Marine Environmental Research, 2011, 71, 149-161.	2.5	12
103	Temperatureâ€mediated acquisition of rare heterologous symbionts promotes survival of coral larvae under ocean warming. Global Change Biology, 2022, 28, 2006-2025.	9.5	12
104	Skeletal eroding band in Hawaiian corals. Coral Reefs, 2010, 29, 469-469.	2.2	11
105	Photophysiological Consequences of Vertical Stratification of <i>Symbiodinium</i> in Tissue of the Coral <i>Porites lutea</i>. Biological Bulletin, 2012, 223, 226-235.	1.8	11
106	Symbiont transmission and reproductive mode influence responses of three Hawaiian coral larvae to elevated temperature and nutrients. Coral Reefs, 2020, 39, 419-431.	2.2	11
107	Ecosystemâ€scale mapping of coral species and thermal tolerance. Frontiers in Ecology and the Environment, 2022, 20, 285-291.	4.0	11
108	The effects of substratum type on the growth, mortality, and photophysiology of juvenile corals in St. John, US Virgin Islands. Journal of Experimental Marine Biology and Ecology, 2010, 384, 18-29.	1.5	10

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109	From polyps to pixels: understanding coral reef resilience to local and global change across scales. Landscape Ecology, 2023, 38, 737-752.	4.2	10
110	Assessment of metals and a metalloid in sediments from Hawaiian coral reef ecosystems. Marine Pollution Bulletin, 2009, 58, 1759-1765.	5.0	9
111	Investigating the spatial distribution of growth anomalies affecting Montipora capitata corals in a 3-dimensional framework. Journal of Invertebrate Pathology, 2016, 140, 51-57.	3.2	8
112	Intra-colony disease progression induces fragmentation of coral fluorescent pigments. Scientific Reports, 2017, 7, 14596.	3.3	7
113	Scale dependence of coral reef oases and their environmental correlates. Ecological Applications, 2022, 32, e2651.	3.8	7
114	Variation in Coral Thermotolerance Across a Pollution Gradient Erodes as Coral Symbionts Shift to More Heat-Tolerant Genera. Frontiers in Marine Science, 2021, 8, .	2.5	6
115	Data for spatial analysis of growth anomaly lesions on Montipora capitata coral colonies using 3D reconstruction techniques. Data in Brief, 2016, 9, 460-462.	1.0	4
116	The isolation of a Distal-less gene fragment from two molluscs. Development Genes and Evolution, 2001, 211, 506-508.	0.9	3
117	Discovery of SCORs: Anciently derived, highly conserved gene-associated repeats in stony corals. Genomics, 2017, 109, 383-390.	2.9	3
118	High light alongside elevated PCO2Âalleviates thermal depression of photosynthesis in a hard coral (Pocillopora acuta). Journal of Experimental Biology, 2020, 223, .	1.7	3
119	Divergent evolutionary histories of DNA markers in a Hawaiian population of the coral <i>Montipora capitata</i>. PeerJ, 2017, 5, e3319.	2.0	3
120	Nitric oxide production rather than oxidative stress and cell death is associated with the onset of coral bleaching in <i>Pocillopora acuta</i>. PeerJ, 0, 10, e13321.	2.0	3
121	Embracing Complexity in Coralâ€"Algal Symbioses. , 2017, , 467-492.		2
122	Determining the Spatial and Temporal Patterns of Developmental Gene Expression in Vertebrates and Invertebrates Using in situ Hybridization Techniques. , 2002, , 365-394.		0
123	The metabolic significance of symbiont community composition in the coral-algal symbiosis. , 2022, , 211-229.		0