David J Miller

List of Publications by Year
in descending order

97 papers	7,593 citations	66343 42 h-index	58581 82 g-index
104 all docs	104 docs citations	104 times ranked	6118 citing authors

#	Article	IF	Citations
1	Using the Acropora digitifera genome to understand coral responses to environmental change. Nature, 2011, 476, 320-323.	27.8	758
2	Rapid adaptive responses to climate change in corals. Nature Climate Change, 2017, 7, 627-636.	18.8	327
3	The innate immune repertoire in Cnidaria - ancestral complexity and stochastic gene loss. Genome Biology, 2007, 8, R59.	9.6	322
4	EST Analysis of the Cnidarian Acropora millepora Reveals Extensive Gene Loss and Rapid Sequence Divergence in the Model Invertebrates. Current Biology, 2003, 13, 2190-2195.	3.9	321
5	Maintenance of ancestral complexity and non-metazoan genes in two basal cnidarians. Trends in Genetics, 2005, 21, 633-639.	6.7	315
6	Major Cellular and Physiological Impacts of Ocean Acidification on a Reef Building Coral. PLoS ONE, 2012, 7, e34659.	2.5	262
7	Patterns of coralâ€"dinoflagellate associations in Acropora : significance of local availability and physiology of Symbiodinium strains and hostâ€"symbiont selectivity. Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 1759-1767.	2.6	259
8	The Evolutionary History of the Coral Genus Acropora (Scleractinia, Cnidaria) Based on a Mitochondrial and a Nuclear Marker: Reticulation, Incomplete Lineage Sorting, or Morphological Convergence?. Molecular Biology and Evolution, 2001, 18, 1315-1329.	8.9	256
9	A Comprehensive Phylogenetic Analysis of the Scleractinia (Cnidaria, Anthozoa) Based on Mitochondrial CO1 Sequence Data. PLoS ONE, 2010, 5, e11490.	2.5	213
10	Evolution of homeobox genes: Q 50 Paired-like genes founded the Paired class. Development Genes and Evolution, 1999, 209, 186-197.	0.9	169
11	A genomic view of the reef-building coral Porites lutea and its microbial symbionts. Nature Microbiology, 2019, 4, 2090-2100.	13.3	160
12	The Skeletal Proteome of the Coral Acropora millepora: The Evolution of Calcification by Co-Option and Domain Shuffling. Molecular Biology and Evolution, 2013, 30, 2099-2112.	8.9	155
13	Symbiodinium genomes reveal adaptive evolution of functions related to coral-dinoflagellate symbiosis. Communications Biology, 2018, 1, 95.	4.4	154
14	The ancient evolutionary origins of Scleractinia revealed by azooxanthellate corals. BMC Evolutionary Biology, 2011, 11, 316.	3.2	153
15	Coral Thermal Tolerance: Tuning Gene Expression to Resist Thermal Stress. PLoS ONE, 2012, 7, e50685.	2.5	140
16	Localized expression of a dpp/BMP2/4 ortholog in a coral embryo. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 8106-8111.	7.1	126
17	Genetic transformation of dinoflagellates (Amphidinium and Symbiodinium): expression of GUS in microalgae using heterologous promoter constructs. Plant Journal, 1998, 13, 427-435.	5.7	120
18	Microarray analysis identifies candidate genes for key roles in coral development. BMC Genomics, 2008, 9, 540.	2.8	119

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19	Defining the Origins of the NOD-Like Receptor System at the Base of Animal Evolution. Molecular Biology and Evolution, 2011, 28, 1687-1702.	8.9	119
20	Axial Patterning and Diversification in the Cnidaria Predate the Hox System. Current Biology, 2006, 16, 920-926.	3.9	116
21	Universal targetâ€enrichment baits for anthozoan (Cnidaria) phylogenomics: New approaches to longâ€standing problems. Molecular Ecology Resources, 2018, 18, 281-295.	4.8	114
22	The Mitochondrial Genome of Acropora tenuis (Cnidaria; Scleractinia) Contains a Large Group I Intron and a Candidate Control Region. Journal of Molecular Evolution, 2002, 55, 1-13.	1.8	111
23	The Complex NOD-Like Receptor Repertoire of the Coral Acropora digitifera Includes Novel Domain Combinations. Molecular Biology and Evolution, 2013, 30, 167-176.	8.9	109
24	A simple plan â€" cnidarians and the origins of developmental mechanisms. Nature Reviews Genetics, 2004, 5, 567-577.	16.3	108
25	Back to the Basics: Cnidarians Start to Fire. Trends in Neurosciences, 2017, 40, 92-105.	8.6	102
26	Atypically low rate of cytochrome b evolution in the scleractinian coral genus Acropora. Proceedings of the Royal Society B: Biological Sciences, 1999, 266, 179-183.	2.6	95
27	The evolution of immunity: a low-life perspective. Trends in Immunology, 2007, 28, 449-454.	6.8	89
28	Host-Microbe Coevolution: Applying Evidence from Model Systems to Complex Marine Invertebrate Holobionts. MBio, 2019, 10, .	4.1	88
29	Patterns of Gene Expression in a Scleractinian Coral Undergoing Natural Bleaching. Marine Biotechnology, 2010, 12, 594-604.	2.4	87
30	Microarray analysis reveals transcriptional plasticity in the reef building coral <i>Acropora millepora</i>. Molecular Ecology, 2009, 18, 3062-3075.	3.9	80
31	Homeobox genes and the zootype. Nature, 1993, 365, 215-216.	27.8	72
32	Nearâ€future pH conditions severely impact calcification, metabolism and the nervous system in the pteropod <i>Heliconoides inflatus</i>. Global Change Biology, 2016, 22, 3888-3900.	9.5	68
33	Gene structure and larval expression of cnox-2Am from the coral Acropora millepora. Development Genes and Evolution, 2001, 211, 10-19.	0.9	66
34	The Whole-Genome Sequence of the Coral Acropora millepora. Genome Biology and Evolution, 2019, 11, 1374-1379.	2.5	64
35	Components of both major axial patterning systems of the Bilateria are differentially expressed along the primary axis of a â€˜radiateâ€™ animal, the anthozoan cnidarian Acropora millepora. Developmental Biology, 2006, 298, 632-643.	2.0	62
36	An enhanced target-enrichment bait set for Hexacorallia provides phylogenomic resolution of the staghorn corals (Acroporidae) and close relatives. Molecular Phylogenetics and Evolution, 2020, 153, 106944.	2.7	59

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37	Differential expression of three galaxin-related genes during settlement and metamorphosis in the scleractinian coral Acropora millepora. BMC Evolutionary Biology, 2009, 9, 178.	3.2	58
38	Comparative genomics reveals the distinct evolutionary trajectories of the robust and complex coral lineages. Genome Biology, 2018, 19, 175.	8.8	57
39	Deciphering the nature of the coralâ€“<i>Chromera</i> association. ISME Journal, 2018, 12, 776-790.	9.8	56
40	Finding Nemoâ€™s Genes: A chromosomeâ€scale reference assembly of the genome of the orange clownfish <i>Amphiprion percula</i>. Molecular Ecology Resources, 2019, 19, 570-585.	4.8	55
41	Coral development: from classical embryology to molecular control. International Journal of Developmental Biology, 2002, 46, 671-8.	0.6	54
42	Resolving structure and function of metaorganisms through a holistic framework combining reductionist and integrative approaches. Zoology, 2019, 133, 81-87.	1.2	53
43	New tricks with old genes: the genetic bases of novel cnidarian traits. Trends in Genetics, 2010, 26, 154-158.	6.7	50
44	The â€œNaked Coralâ€•Hypothesis Revisited â€“ Evidence for and Against Scleractinian Monophyly. PLoS ONE, 2014, 9, e94774.	2.5	50
45	Evolutionary analyses of caspaseâ€8 and its paralogs: Deep origins of the apoptotic signaling pathways. BioEssays, 2015, 37, 767-776.	2.5	48
46	Differential Gene Expression at Coral Settlement and Metamorphosis - A Subtractive Hybridization Study. PLoS ONE, 2011, 6, e26411.	2.5	47
47	Functional conservation of the apoptotic machinery from coral to man: the diverse and complex Bcl-2 and caspase repertoires of Acropora millepora. BMC Genomics, 2016, 17, 62.	2.8	45
48	Setting the pace: host rhythmic behaviour and gene expression patterns in the facultatively symbiotic cnidarian Aiptasia are determined largely by Symbiodinium. Microbiome, 2018, 6, 83.	11.1	45
49	Sox genes in the coral Acropora millepora: divergent expression patterns reflect differences in developmental mechanisms within the Anthozoa. BMC Evolutionary Biology, 2008, 8, 311.	3.2	44
50	The acute transcriptional response of the coral Acropora millepora to immune challenge: expression of GiMAP/IAN genes links the innate immune responses of corals with those of mammals and plants. BMC Genomics, 2013, 14, 400.	2.8	44
51	Genomic signatures in the coral holobiont reveal host adaptations driven by Holocene climate change and reef specific symbionts. Science Advances, 2020, 6, .	10.3	44
52	Conservation of a DPP/BMP signaling pathway in the nonbilateral cnidarian Acropora millepora. Evolution & Development, 2001, 3, 241-250.	2.0	43
53	Diverse coral reef invertebrates exhibit patterns of phylosymbiosis. ISME Journal, 2020, 14, 2211-2222.	9.8	43
54	Light-Regulated Transcription of Genes Encoding Peridinin Chlorophyll a Proteins and the Major Intrinsic Light-Harvesting Complex Proteins in the DinoflagellateAmphidinium carterae Hulburt (Dinophycae)1. Plant Physiology, 1998, 117, 189-196.	4.8	41

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55	The coral Acropora: What it can contribute to our knowledge of metazoan evolution and the evolution of developmental processes. BioEssays, 2000, 22, 291-296.	2.5	39
56	snail expression during embryonic development of the coral Acropora : blurring the diploblast/triploblast divide?. Development Genes and Evolution, 2004, 214, 257-260.	0.9	39
57	How do environmental factors influence life cycles and development? An experimental framework for earlyâ€diverging metazoans. BioEssays, 2014, 36, 1185-1194.	2.5	38
58	The microbiome of the octocoral Lobophytum pauciflorum: minor differences between sexes and resilience to short-term stress. FEMS Microbiology Ecology, 2017, 93, .	2.7	36
59	Monophyletic origin of<i>Caryophyllia</i>(Scleractinia, Caryophylliidae), with descriptions of six new species. Systematics and Biodiversity, 2010, 8, 91-118.	1.2	34
60	Transcriptomic analysis reveals protein homeostasis breakdown in the coral Acropora millepora during hypo-saline stress. BMC Genomics, 2019, 20, 148.	2.8	33
61	Cryptic complexity captured: the Nematostella genome reveals its secrets. Trends in Genetics, 2008, 24, 1-4.	6.7	32
62	A "Neural" Enzyme in Nonbilaterian Animals and Algae: Preneural Origins for Peptidylglycine Â-Amidating Monooxygenase. Molecular Biology and Evolution, 2012, 29, 3095-3109.	8.9	32
63	The first modern solitary Agariciidae (Anthozoa, Scleractinia) revealed by molecular and microstructural analysis. Invertebrate Systematics, 2012, 26, 303.	1.3	30
64	The organizer in evolutionâ€“gastrulation and organizer gene expression highlight the importance of Brachyury during development of the coral, Acropora millepora. Developmental Biology, 2015, 399, 337-347.	2.0	28
65	Dual RNAâ€sequencing analyses of a coral and its native symbiont during the establishment of symbiosis. Molecular Ecology, 2020, 29, 3921-3937.	3.9	26
66	The Apoptotic Initiator Caspase-8: Its Functional Ubiquity and Genetic Diversity during Animal Evolution. Molecular Biology and Evolution, 2014, 31, 3282-3301.	8.9	25
67	Host Coenzyme Q Redox State Is an Early Biomarker of Thermal Stress in the Coral Acropora millepora. PLoS ONE, 2015, 10, e0139290.	2.5	25
68	Coral genomics and transcriptomics â€" Ushering in a new era in coral biology. Journal of Experimental Marine Biology and Ecology, 2011, 408, 114-119.	1.5	22
69	Transcriptomic analysis of the response of Acropora millepora to hypo-osmotic stress provides insights into DMSP biosynthesis by corals. BMC Genomics, 2017, 18, 612.	2.8	22
70	Phylogenomics Reveals an Anomalous Distribution of USP Genes in Metazoans. Molecular Biology and Evolution, 2011, 28, 153-161.	8.9	19
71	Transcriptomic analyses highlight the likely metabolic consequences of colonization of a cnidarian host by native or non-native <i>Symbiodinium</i> species. Biology Open, 2019, 8, .	1.2	19
72	Expression of the neuropeptides RFamide and LWamide during development of the coral Acropora millepora in relation to settlement and metamorphosis. Developmental Biology, 2019, 446, 56-67.	2.0	19

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73	ampir: an R package for fast genome-wide prediction of antimicrobial peptides. Bioinformatics, 2021, 36, 5262-5263.	4.1	19
74	Early eukaryotic origins and metazoan elaboration of MAPR family proteins. Molecular Phylogenetics and Evolution, 2020, 148, 106814.	2.7	17
75	DMSP Production by Coral-Associated Bacteria. Frontiers in Marine Science, 2022, 9, .	2.5	17
76	HYPERMETHYLATION AT CPG-MOTIFS IN THE DINOFLAGELLATES AMPHIDINIUM CARTERAE (DINOPHYCEAE) AND SYMBIODINIUM MICROADRIATICUM (DINOPHYCEAE): EVIDENCE FROM RESTRICTION ANALYSES, 5-AZACYTIDINE AND ETHIONINE TREATMENT. Journal of Phycology, 1998, 34, 152-159.	2.3	16
77	Analyses of Corallimorpharian Transcriptomes Provide New Perspectives on the Evolution of Calcification in the Scleractinia (Corals). Genome Biology and Evolution, 2017, 9, 150-160.	2.5	16
78	Deltocyathiidae, an earlyâ€diverging family of Robust corals (Anthozoa, Scleractinia). Zoologica Scripta, 2013, 42, 201-212.	1.7	15
79	Never Ending Analysis of a Century Old Evolutionary Debate: â€œUnringingâ€•the Urmetazoon Bell. Frontiers in Ecology and Evolution, 2016, 4, .	2.2	15
80	Urbanization comprehensively impairs biological rhythms in coral holobionts. Global Change Biology, 2022, 28, 3349-3364.	9.5	14
81	The Neuronal Calcium Sensor Protein Acrocalcin: A Potential Target of Calmodulin Regulation during Development in the Coral Acropora millepora. PLoS ONE, 2012, 7, e51689.	2.5	12
82	Tandem organization of independently duplicated homeobox genes in the basal cnidarian Acropora millepora. Development Genes and Evolution, 2005, 215, 268-273.	0.9	11
83	Testing cophylogeny between coral reef invertebrates and their bacterial and archaeal symbionts. Molecular Ecology, 2021, 30, 3768-3782.	3.9	11
84	The Role of DNA Methylation in Genome Defense in Cnidaria and Other Invertebrates. Molecular Biology and Evolution, 2022, 39, .	8.9	10
85	Quaternary structure of the hydroxylamine oxidoreductase from Nitrosomonas europaea. Archives of Microbiology, 1995, 163, 300-306.	2.2	9
86	Simultaneous determination of coenzyme Q and plastoquinone redox states in the coralâ€"Symbiodinium symbiosis during thermally induced bleaching. Journal of Experimental Marine Biology and Ecology, 2014, 455, 1-6.	1.5	9
87	Conservation and turnover of miRNAs and their highly complementary targets in early branching animals. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20203169.	2.6	9
88	Biogeography, reproductive biology and phylogenetic divergence within the Fungiidae (mushroom) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.7	7
89	Linkage of genes encoding enolase (eno) and CTP synthase (pyrG) in the ÃŽÂ²-subdivision proteobacteriumNitrosomonas europaea. FEMS Microbiology Letters, 1998, 165, 153-157.	1.8	5
90	Molecular techniques and their limitations shape our view of the holobiont. Zoology, 2019, 137, 125695.	1.2	5

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91	Identification and Characterization of a Peptide from the Stony Coral <i>Heliofungia actiniformis</i>. Journal of Natural Products, 2020, 83, 3454-3463.	3.0	4
92	Comparative transcriptomic analyses of Chromera and Symbiodiniaceae. Environmental Microbiology Reports, 2020, 12, 435-443.	2.4	4
93	Loss and Gain of Group I Introns in the Mitochondrial Gene of the Scleractinia (Cnidaria; Anthozoa). Zoological Studies, 2017, 56, e9.	0.3	3
94	Acroporaâ€”The Most-Studied Coral Genus. , 2021, , 173-193.		3
95	Asexual reproduction by marginal budding in the tropical corallimorpharian, Ricordea yuma (Corallimorpharia; Ricordeidae). Galaxea, 2013, 15, 41-42.	0.7	2
96	Quaternary structure of the hydroxylamine oxidoreductase from Nitrosomonas europaea. Archives of Microbiology, 1995, 163, 300-306.	2.2	2
97	Newly Discovered Peptides from the Coral <i>Heliofungia actiniformis</i> Show Structural and Functional Diversity. Journal of Natural Products, 2022, 85, 1789-1798.	3.0	2