Jonathan L. Payne

List of Publications by Year in Descending Order

117 papers	6,410 citations	42 h-index	79 g-index
125 ext. papers	7,479 ext. citations	5.9 avg, IF	6.15 L-index

#	Paper	IF	Citations
117	Generating and testing hypotheses about the fossil record of insect herbivory with a theoretical ecospace. *Review of Palaeobotany and Palynology*, **2022**, 297, 104564	1.7	4
116	Mass extinctions alter extinction and origination dynamics with respect to body size. *Proceedings of the Royal Society B: Biological Sciences*, **2021**, 288, 20211681	4.4	2
115	Implications of giant ooids for the carbonate chemistry of Early Triassic seawater. *Geology*, **2021**, 49, 156-161	5	7
114	Biotic and Abiotic Controls on the Phanerozoic History of Marine Animal Biodiversity. *Annual Review of Ecology, Evolution, and Systematics*, **2021**, 52,	13.5	3
113	Lepidoptera demonstrate the relevance of Murray's Law to circulatory systems with tidal flow. *BMC Biology*, **2021**, 19, 204	7.3	
112	Ecological Filtering and Exaptation in the Evolution of Marine Snakes. *American Naturalist*, **2021**, 198, 506-521	3.7	2
111	Fully automated carbonate petrography using deep convolutional neural networks. *Marine and Petroleum Geology*, **2020**, 122, 104687	4.7	10
110	Respiratory medium and circulatory anatomy constrain size evolution in marine macrofauna. *Paleobiology*, **2020**, 46, 288-303	2.6	3
109	Idiographic and nomothetic approaches to heterogeneity are complementary: Response to comments on Evaluating the influences of temperature, primary production, and evolutionary history on bivalve growth rates *Paleobiology*, **2020**, 46, 275-277	2.6	
108	The evolution of complex life and the stabilization of the Earth system. *Interface Focus*, **2020**, 10, 20190106	3.9	6
107	Refined foraminiferal biostratigraphy of upper Wordian, Capitanian, and Wuchiapingian strata in Hambast Valley, Abadeh region (Iran), and paleobiogeographic implications. *Geological Journal*, **2020**, 55, 6255-6279	1.7	3
106	Ecologically diverse clades dominate the oceans via extinction resistance. *Science*, **2020**, 367, 1035-1038	33.3	12
105	Body size, sampling completeness, and extinction risk in the marine fossil record. *Paleobiology*, **2020**, 46, 23-40	2.6	10
104	Physiological constraints on body size distributions in Crocodyliformes. *Evolution; International Journal of Organic Evolution*, **2020**, 74, 245-255	3.8	9
103	Geochemical, biostratigraphic, and high-resolution geochronological constraints on the waning stage of Emeishan Large Igneous Province. *Bulletin of the Geological Society of America*, **2020**, 132, 1969-1986	3.9	20
102	Interactions between sediment production and transport in the geometry of carbonate platforms: Insights from forward modeling of the Great Bank of Guizhou (Early to Middle Triassic), south China. *Marine and Petroleum Geology*, **2020**, 118, 104416	4.7	2
101	End-Guadalupian extinction of larger fusulinids in central Iran and implications for the global biotic crisis. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **2020**, 550, 109743	2.9	5

100	Giant sector-collapse structures (scalloped margins) of the Yangtze Platform and Great Bank of Guizhou, China: Implications for genesis of collapsed carbonate platform margin systems. *Sedimentology*, **2020**, 67, 3167	3.3	6
99	Controls on carbonate platform architecture and reef recovery across the Palaeozoic to Mesozoic transition: A high-resolution analysis of the Great Bank of Guizhou. *Sedimentology*, **2020**, 67, 3119	3.3	5
98	A general model for growth trajectories of linear carbonate platforms. *Journal of Sedimentary Research*, **2020**, 90, 1139-1155	2.1	0
97	A framework for the integrated analysis of the magnitude, selectivity, and biotic effects of extinction and origination. *Paleobiology*, **2020**, 46, 1-22	2.6	6
96	Greater vulnerability to warming of marine versus terrestrial ectotherms. *Nature*, **2019**, 569, 108-111	50.4	228
95	The accelerating influence of humans on mammalian macroecological patterns over the late Quaternary. *Quaternary Science Reviews*, **2019**, 211, 1-16	3.9	22
94	Modeling the consequences of land plant evolution on silicate weathering. *Numerische Mathematik*, **2019**, 319, 1-43	5.3	29
93	Evaluating the influences of temperature, primary production, and evolutionary history on bivalve growth rates. *Paleobiology*, **2019**, 45, 405-420	2.6	13
92	A Cretaceous peak in family-level insect diversity estimated with mark-recapture methodology. *Proceedings of the Royal Society B: Biological Sciences*, **2019**, 286, 20192054	4.4	16
91	Body size downgrading of mammals over the late Quaternary. *Science*, **2018**, 360, 310-313	33.3	120
90	Phanerozoic O and the early evolution of terrestrial animals. *Proceedings of the Royal Society B: Biological Sciences*, **2018**, 285,	4.4	43
89	Energetic tradeoffs control the size distribution of aquatic mammals. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 4194-4199	11.5	49
88	Is biodiversity energy-limited or unbounded? A test in fossil and modern bivalves. *Paleobiology*, **2018**, 44, 385-401	2.6	7
87	Global perturbation of the marine calcium cycle during the Permian-Triassic transition. *Bulletin of the Geological Society of America*, **2018**, 130, 1323-1338	3.9	24
86	Temperature-dependent hypoxia explains biogeography and severity of end-Permian marine mass extinction. *Science*, **2018**, 362,	33.3	106
85	Environmental influence on growth history in marine benthic foraminifera. *Paleobiology*, **2018**, 44, 736-757	2.6	3
84	Additive effects of acidification and mineralogy on calcium isotopes in Triassic/Jurassic boundary limestones. *Geochemistry, Geophysics, Geosystems*, **2017**, 18, 113-124	3.6	19
83	The Late Permian to Late Triassic Great Bank of Guizhou: An isolated carbonate platform in the Nanpanjiang Basin of Guizhou Province, China. *AAPG Bulletin*, **2017**, 101, 553-562	2.5	5

82	Hierarchical complexity and the size limits of life. *Proceedings of the Royal Society B: Biological Sciences*, **2017**, 284,	4.4	22
81	The influence of seawater carbonate chemistry, mineralogy, and diagenesis on calcium isotope variations in Lower-Middle Triassic carbonate rocks. *Chemical Geology*, **2017**, 471, 13-37	4.2	28
80	A model for the decrease in amplitude of carbon isotope excursions across the Phanerozoic. *Numerische Mathematik*, **2017**, 317, 641-676	5.3	24
79	Uranium isotope evidence for an expansion of marine anoxia during the end-Triassic extinction. *Geochemistry, Geophysics, Geosystems*, **2017**, 18, 3093-3108	3.6	43
78	Origination and early evolution of Involutinida in the aftermath of the end-Permian mass extinction: Praetriadodiscus n. gen., and two new species. *Revue De Micropaleontologie*, **2017**, 60, 573-584	1.4	2
77	Ecophenotypic responses of benthic foraminifera to oxygen availability along an oxygen gradient in the California Borderland. *Marine Ecology*, **2017**, 38, e12430	1.4	8
76	Uranium isotope evidence for temporary ocean oxygenation in the aftermath of the Sturtian Snowball Earth. *Earth and Planetary Science Letters*, **2017**, 458, 282-292	5.3	68
75	Response by Jonathan Payne for the presentation of the 2015 Schuchert Award of the Paleontological Society. *Journal of Paleontology*, **2017**, 91, 1342-1343	1.1	
74	Ecological selectivity of the emerging mass extinction in the oceans. *Science*, **2016**, 353, 1284-6	33.3	99
73	Physicochemical controls on biogeographic variation of benthic foraminiferal test size and shape. *Paleobiology*, **2016**, 42, 595-611	2.6	7
72	REPLY: PERMIAN–TRIASSIC MICROBIALITE AND DISSOLUTION SURFACE ENVIRONMENTAL CONTROLS ON THE GENESIS OF MARINE MICROBIALITES AND DISSOLUTION SURFACE ASSOCIATED WITH THE END-PERMIAN MASS EXTINCTION: NEW SECTIONS AND OBSERVATIONS FROM THE NANPANJIANG BASIN, SOUTH CHINA. *Palaios*, **2016**, 31, 118-121	1.6	3
71	Marine anoxia and delayed Earth system recovery after the end-Permian extinction. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 2360-5	11.5	160
70	Comparative size evolution of marine clades from the Late Permian through Middle Triassic. *Paleobiology*, **2016**, 42, 127-142	2.6	28
69	The influence of the biological pump on ocean chemistry: implications for long-term trends in marine redox chemistry, the global carbon cycle, and marine animal ecosystems. *Geobiology*, **2016**, 14, 207-19	4.3	62
68	Modelling the impact of pulsed CAMP volcanism on pCO2 and δ13C across the Triassic–Jurassic transition. *Geological Magazine*, **2016**, 153, 252-270	2	29
67	Body Size Evolution Across the Geozoic. *Annual Review of Earth and Planetary Sciences*, **2016**, 44, 523-553	15.3	40
66	Extinction intensity, selectivity and their combined macroevolutionary influence in the fossil record. *Biology Letters*, **2016**, 12,	3.6	17
65	ENVIRONMENTAL CONTROLS ON THE GENESIS OF MARINE MICROBIALITES AND DISSOLUTION SURFACE ASSOCIATED WITH THE END-PERMIAN MASS EXTINCTION: NEW SECTIONS AND OBSERVATIONS FROM THE NANPANJIANG BASIN, SOUTH CHINA. *Palaios*, **2015**, 30, 529-552	1.6	41

64	An integrated biostratigraphy (conodonts and foraminifers) and chronostratigraphy (paleomagnetic reversals, magnetic susceptibility, elemental chemistry, carbon isotopes and geochronology) for the Permian–Upper Triassic strata of Guandao section, Nanpanjiang Basin, south China. *Journal of Asian Earth Sciences*, **2015**, 108, 117-135	2.8	73
63	Drowning of the Triassic Yangtze Platform, South China, By Tectonic Subsidence Into Toxic Deep Waters of An Anoxic Basin. *Journal of Sedimentary Research*, **2015**, 85, 419-444	2.1	14
62	Normal giants? Temporal and latitudinal shifts of Palaeozoic marine invertebrate gigantism and global change. *Lethaia*, **2015**, 48, 267-288	1.3	21
61	TAPHONOMIC BIAS OF SELECTIVE SILICIFICATION REVEALED BY PAIRED PETROGRAPHIC AND INSOLUBLE RESIDUE ANALYSIS. *Palaios*, **2015**, 30, 620-626	1.6	5
60	Limited role of functional differentiation in early diversification of animals. *Nature Communications*, **2015**, 6, 6455	17.4	28
59	The rise of oxygen and siderite oxidation during the Lomagundi Event. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 6562-7	11.5	54
58	Phanerozoic trends in brachiopod body size from synoptic data. *Paleobiology*, **2015**, 41, 491-501	2.6	19
57	Animal evolution. Cope's rule in the evolution of marine animals. *Science*, **2015**, 347, 867-70	33.3	101
56	Patterns of basin fill in Triassic turbidites of the Nanpanjiang basin: implications for regional tectonics and impacts on carbonate-platform evolution. *Basin Research*, **2015**, 27, 587-612	3.2	22
55	Metabolic dominance of bivalves predates brachiopod diversity decline by more than 150 million years. *Proceedings of the Royal Society B: Biological Sciences*, **2014**, 281, 20133122	4.4	42
54	Phylogenetic signal in extinction selectivity in Devonian terebratulide brachiopods. *Paleobiology*, **2014**, 40, 675-692	2.6	18
53	Constraining the cause of the end-Guadalupian extinction with coupled records of carbon and calcium isotopes. *Earth and Planetary Science Letters*, **2014**, 396, 201-212	5.3	62
52	The end-Triassic negative δ13C excursion: A lithologic test. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **2014**, 412, 177-186	2.9	11
51	Constraints on Early Triassic carbon cycle dynamics from paired organic and inorganic carbon isotope records. *Earth and Planetary Science Letters*, **2013**, 361, 429-435	5.3	52
50	Constraints on the adult-offspring size relationship in protists. *Evolution; International Journal of Organic Evolution*, **2013**, 67, 3537-44	3.8	7
49	Microbes, mud and methane: cause and consequence of recurrent Early Jurassic anoxia following the end-Triassic mass extinction. *Palaeontology*, **2013**, 56, 685-709	2.9	78
48	A shift in the long-term mode of foraminiferan size evolution caused by the end-Permian mass extinction. *Evolution; International Journal of Organic Evolution*, **2013**, 67, 816-27	3.8	15
47	High-resolution δ13Ccarb chemostratigraphy from latest Guadalupian through earliest Triassic in South China and Iran. *Earth and Planetary Science Letters*, **2013**, 375, 156-165	5.3	106

46	Late paleozoic fusulinoidean gigantism driven by atmospheric hyperoxia. *Evolution; International Journal of Organic Evolution*, **2012**, 66, 2929-39	3.8	28
45	Within- and among-genus components of size evolution during mass extinction, recovery, and background intervals: a case study of Late Permian through Late Triassic foraminifera. *Paleobiology*, **2012**, 38, 627-643	2.6	31
44	Long-term differences in extinction risk among the seven forms of rarity. *Proceedings of the Royal Society B: Biological Sciences*, **2012**, 279, 4969-76	4.4	114
43	Factors controlling carbonate platform asymmetry: Preliminary results from the Great Bank of Guizhou, an isolated Permian□Triassic Platform in the Nanpanjiang Basin, south China. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **2012**, 315-316, 158-171	2.9	13
42	Carbon cycle dynamics following the end-Triassic mass extinction: Constraints from paired □13Ccarb and □13Corg records. *Geochemistry, Geophysics, Geosystems*, **2012**, 13,	3.6	40
41	Size-frequency distributions along a latitudinal gradient in Middle Permian fusulinoideans. *PLoS ONE*, **2012**, 7, e38603	3.7	11
40	A Lack of Attribution: Closing the Citation Gap Through a Reform of Citation and Indexing Practices. *Taxon*, **2012**, 61, 1349-1351	0.8	6
39	End-Permian Mass Extinction in the Oceans: An Ancient Analog for the Twenty-First Century?. *Annual Review of Earth and Planetary Sciences*, **2012**, 40, 89-111	15.3	240
38	Lower Triassic oolites of the Nanpanjiang Basin, south China: Facies architecture, giant ooids, and diagenesis□Implications for hydrocarbon reservoirs. *AAPG Bulletin*, **2012**, 96, 1389-1414	2.5	38
37	Evidence for end-Permian ocean acidification from calcium isotopes in biogenic apatite. *Geology*, **2012**, 40, 743-746	5	114
36	Escargots through time: an energetic comparison of marine gastropod assemblages before and after the Mesozoic Marine Revolution. *Paleobiology*, **2011**, 37, 252-269	2.6	52
35	□13C evidence that high primary productivity delayed recovery from end-Permian mass extinction. *Earth and Planetary Science Letters*, **2011**, 302, 378-384	5.3	131
34	Local and global abundance associated with extinction risk in late Paleozoic and early Mesozoic gastropods. *Paleobiology*, **2011**, 37, 616-632	2.6	17
33	THE GEOZOIC SUPEREON. *Palaios*, **2011**, 26, 251-255	1.6	4
32	The evolutionary consequences of oxygenic photosynthesis: a body size perspective. *Photosynthesis Research*, **2011**, 107, 37-57	3.7	88
31	Early and Middle Triassic trends in diversity, evenness, and size of foraminifers on a carbonate platform in south China: implications for tempo and mode of biotic recovery from the end-Permian mass extinction. *Paleobiology*, **2011**, 37, 409-425	2.6	65
30	Acidification, anoxia, and extinction: A multiple logistic regression analysis of extinction selectivity during the Middle and Late Permian. *Geology*, **2011**, 39, 1059-1062	5	134
29	Calcium isotope constraints on the end-Permian mass extinction. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 8543-8	11.5	177

28	EARLY TRIASSIC MICROBIAL SPHEROIDS IN THE VIRGIN LIMESTONE MEMBER OF THE MOENKOPI FORMATION, NEVADA, USA. *Palaios*, **2009**, 24, 131-136	1.6	11
27	Erosional truncation of uppermost Permian shallow-marine carbonates and implications for Permian-Triassic boundary events: Reply. *Bulletin of the Geological Society of America*, **2009**, 121, 957-959	3.9	14
26	Two-phase increase in the maximum size of life over 3.5 billion years reflects biological innovation and environmental opportunity. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 24-7	11.5	192
25	Carbon cycle perturbation and stabilization in the wake of the Triassic-Jurassic boundary mass-extinction event. *Geochemistry, Geophysics, Geosystems*, **2008**, 9, n/a-n/a	3.6	75
24	The Red Queen revisited: reevaluating the age selectivity of Phanerozoic marine genus extinctions. *Paleobiology*, **2008**, 34, 318-341	2.6	60
23	END-PERMIAN MASS EXTINCTION OF LAGENIDE FORAMINIFERS IN THE SOUTHERN ALPS (NORTHERN ITALY). *Journal of Paleontology*, **2007**, 81, 415-434	1.1	66
22	The effect of geographic range on extinction risk during background and mass extinction. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 10506-11	11.5	180
21	Erosional truncation of uppermost Permian shallow-marine carbonates and implications for Permian-Triassic boundary events. *Bulletin of the Geological Society of America*, **2007**, 119, 771-784	3.9	153
20	PLACUNOPSIS BIOHERMS: THE FIRST METAZOAN BUILDUPS FOLLOWING THE END-PERMIAN MASS EXTINCTION. *Palaios*, **2007**, 22, 17-23	1.6	39
19	Life in Triassic Oceans: Links Between Planktonic and Benthic Recovery and Radiation **2007**, 165-189		13
18	Timing of recovery from the end-Permian extinction: Geochronologic and biostratigraphic constraints from south China: COMMENT AND REPLY: REPLY. *Geology*, **2007**, 35, e137-e138	5	8
17	Record of the end-Permian extinction and Triassic biotic recovery in the Chongzuo-Pingguo platform, southern Nanpanjiang basin, Guangxi, south China. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **2007**, 252, 200-217	2.9	50
16	Evidence for recurrent Early Triassic massive volcanism from quantitative interpretation of carbon isotope fluctuations. *Earth and Planetary Science Letters*, **2007**, 256, 264-277	5.3	255
15	Paleophysiology and end-Permian mass extinction. *Earth and Planetary Science Letters*, **2007**, 256, 295-313	5.3	496
14	The Pattern and Timing of Biotic Recovery from the End-Permian Extinction on the Great Bank of Guizhou, Guizhou Province, China. *Palaios*, **2006**, 21, 63-85	1.6	115
13	Timing of recovery from the end-Permian extinction: Geochronologic and biostratigraphic constraints from south China. *Geology*, **2006**, 34, 1053	5	165
12	ENVIRONMENTAL AND BIOLOGICAL CONTROLS ON THE INITIATION AND GROWTH OF A MIDDLE TRIASSIC (ANISIAN) REEF COMPLEX ON THE GREAT BANK OF GUIZHOU, GUIZHOU PROVINCE, CHINA. *Palaios*, **2006**, 21, 325-343	1.6	71
11	Controls on marine animal biomass through geological time. *Geobiology*, **2006**, 4, 1-10	4.3	25

10	Evolutionary dynamics of gastropod size across the end-Permian extinction and through the Triassic recovery interval. *Paleobiology*, **2005**, 31, 269-290	2.6	118
9	Large perturbations of the carbon cycle during recovery from the end-permian extinction. *Science*, **2004**, 305, 506-9	33.3	593
8	Lower Cretaceous Alisitos Formation at Punta San Isidro: Coastal sedimentation and volcanism. *Ciencias Marinas*, **2004**, 30, 365-380	1.7	6
7	Permian-Triassic Boundary Sections from Shallow-Marine Carbonate Platforms of the Nanpanjiang Basin, South China: Implications for Oceanic Conditions Associated with the End-Permian Extinction and Its Aftermath. *Palaios*, **2003**, 18, 138-152	1.6	172
6	Applicability and resolving power of statistical tests for simultaneous extinction events in the fossil record. *Paleobiology*, **2003**, 29, 37-51	2.6	8
5	Triassic Tank84-113		3
4	Triassic Foraminifera from the Great Bank of Guizhou, Nanpanjiang Basin, south China: taxonomic account, biostratigraphy, and implications for recovery from end-Permian mass extinction. *Journal of Paleontology*,1-53	1.1	0
3	Proliferation of Chondrodonta as a proxy of environmental instability at the onset of OAE1a: Insights from shallow-water limestones of the Apulia Carbonate Platform. *Sedimentology*,	3.3	1
2	Generating and testing hypotheses about the fossil record of insect herbivory with a theoretical ecospace		1
1	Quantitative evaluation of the roles of ocean chemistry and climate on ooid size across the Phanerozoic: Global versus local controls. *Sedimentology*,	3.3	2