

# Douglas H Erwin

## List of Publications by Year in descending order

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124  
papers

12,228  
citations

36303

51  
h-index

26613

107  
g-index

209  
all docs

209  
docs citations

209  
times ranked

10319  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Cambrian Conundrum: Early Divergence and Later Ecological Success in the Early History of Animals. <i>Science</i> , 2011, 334, 1091-1097.	12.6	1,055
2	Gene Regulatory Networks and the Evolution of Animal Body Plans. <i>Science</i> , 2006, 311, 796-800.	12.6	997
3	Calibrating the End-Permian Mass Extinction. <i>Science</i> , 2011, 334, 1367-1372.	12.6	648
4	The Permian-Triassic extinction. <i>Nature</i> , 1994, 367, 231-236.	27.8	626
5	The origin and evolution of cell types. <i>Nature Reviews Genetics</i> , 2016, 17, 744-757.	16.3	572
6	Snowball Earth climate dynamics and Cryogenian geology-geobiology. <i>Science Advances</i> , 2017, 3, e1600983.	10.3	424
7	The evolution of hierarchical gene regulatory networks. <i>Nature Reviews Genetics</i> , 2009, 10, 141-148.	16.3	411
8	Niche Construction Theory: A Practical Guide for Ecologists. <i>Quarterly Review of Biology</i> , 2013, 88, 3-28.	0.1	325
9	DISPARITY: MORPHOLOGICAL PATTERN AND DEVELOPMENTAL CONTEXT. <i>Palaeontology</i> , 2007, 50, 57-73.	2.2	298
10	A high-resolution summary of Cambrian to Early Triassic marine invertebrate biodiversity. <i>Science</i> , 2020, 367, 272-277.	12.6	298
11	Abrupt and Gradual Extinction Among Late Permian Land Vertebrates in the Karoo Basin, South Africa. <i>Science</i> , 2005, 307, 709-714.	12.6	281
12	Macroevolution of ecosystem engineering, niche construction and diversity. <i>Trends in Ecology and Evolution</i> , 2008, 23, 304-310.	8.7	248
13	AUTECOLOGY AND THE FILLING OF ECOSPACE: KEY METAZOAN RADIATIONS. <i>Palaeontology</i> , 2007, 50, 1-22.	2.2	240
14	The last common bilaterian ancestor. <i>Development (Cambridge)</i> , 2002, 129, 3021-3032.	2.5	239
15	The end and the beginning: recoveries from mass extinctions. <i>Trends in Ecology and Evolution</i> , 1998, 13, 344-349.	8.7	236
16	The end of the Ediacara biota: Extinction, biotic replacement, or Cheshire Cat?. <i>Gondwana Research</i> , 2013, 23, 558-573.	6.0	220
17	Compilation and Network Analyses of Cambrian Food Webs. <i>PLoS Biology</i> , 2008, 6, e102.	5.6	211
18	Earth's oxygen cycle and the evolution of animal life. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 8933-8938.	7.1	205

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19	Possible animal-body fossils in pre-Marinoan limestones from South Australia. <i>Nature Geoscience</i> , 2010, 3, 653-659.	12.9	180
20	A COMPARATIVE STUDY OF DIVERSIFICATION EVENTS: THE EARLY PALEOZOIC VERSUS THE MESOZOIC. <i>Evolution; International Journal of Organic Evolution</i> , 1987, 41, 1177-1186.	2.3	169
21	Comparative genomics explains the evolutionary success of reef-forming corals. <i>ELife</i> , 2016, 5, .	6.0	169
22	Climate as a Driver of Evolutionary Change. <i>Current Biology</i> , 2009, 19, R575-R583.	3.9	157
23	Ediacaran Extinction and Cambrian Explosion. <i>Trends in Ecology and Evolution</i> , 2018, 33, 653-663.	8.7	152
24	Macroevolution is more than repeated rounds of microevolution. <i>Evolution &amp; Development</i> , 2000, 2, 78-84.	2.0	149
25	The Evolution and Distribution of Species Body Size. <i>Science</i> , 2008, 321, 399-401.	12.6	147
26	Developmental Evolution of Metazoan Bodyplans: The Fossil Evidence. <i>Developmental Biology</i> , 1996, 173, 373-381.	2.0	145
27	High-resolution SIMS oxygen isotope analysis on conodont apatite from South China and implications for the end-Permian mass extinction. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2016, 448, 26-38.	2.3	133
28	A sudden end-Permian mass extinction in South China. <i>Bulletin of the Geological Society of America</i> , 2019, 131, 205-223.	3.3	127
29	Novelty and Innovation in the History of Life. <i>Current Biology</i> , 2015, 25, R930-R940.	3.9	117
30	When and how did the terrestrial mid-Permian mass extinction occur? Evidence from the tetrapod record of the Karoo Basin, South Africa. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2015, 282, 20150834.	2.6	115
31	Ecological drivers of the Ediacaran-Cambrian diversification of Metazoa. <i>Evolutionary Ecology</i> , 2012, 26, 417-433.	1.2	107
32	Biotic replacement and mass extinction of the Ediacara biota. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2015, 282, 20151003.	2.6	103
33	Early metazoan life: divergence, environment and ecology. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2015, 370, 20150036.	4.0	98
34	Diversity, Dilemmas, and Monopolies of Niche Construction. <i>American Naturalist</i> , 2009, 173, 26-40.	2.1	93
35	A preliminary classification of evolutionary radiations. <i>Historical Biology</i> , 1992, 6, 133-147.	1.4	90
36	Early origin of the bilaterian developmental toolkit. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2009, 364, 2253-2261.	4.0	89

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37	Recovery after mass extinction: evolutionary assembly in large-scale biosphere dynamics. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2002, 357, 697-707.	4.0	87
38	Rarity in mass extinctions and the future of ecosystems. <i>Nature</i> , 2015, 528, 345-351.	27.8	87
39	What can we learn about ecology and evolution from the fossil record?. <i>Trends in Ecology and Evolution</i> , 2006, 21, 322-328.	8.7	85
40	On the co-evolution of surface oxygen levels and animals. <i>Geobiology</i> , 2020, 18, 260-281.	2.4	82
41	Quantifying the process and abruptness of the end-Permian mass extinction. <i>Paleobiology</i> , 2014, 40, 113-129.	2.0	80
42	A Comparative Study of Diversification Events: The Early Paleozoic Versus the Mesozoic. <i>Evolution; International Journal of Organic Evolution</i> , 1987, 41, 1177.	2.3	71
43	Innovation not recovery: dynamic redox promotes metazoan radiations. <i>Biological Reviews</i> , 2018, 93, 863-873.	10.4	71
44	The origin of animal body plans: a view from fossil evidence and the regulatory genome. <i>Development (Cambridge)</i> , 2020, 147, .	2.5	69
45	Silica-replaced fossils through the Phanerozoic. <i>Geology</i> , 1997, 25, 1031.	4.4	63
46	Cambrian Naraoiids (Arthropoda): Morphology, Ontogeny, Systematics, and Evolutionary Relationships. <i>Journal of Paleontology</i> , 2007, 81, 1-52.	0.8	63
47	Felsic volcanism as a factor driving the end-Permian mass extinction. <i>Science Advances</i> , 2021, 7, eabh1390.	10.3	63
48	Extinction as the loss of evolutionary history. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 11520-11527.	7.1	61
49	The last common bilaterian ancestor. <i>Development (Cambridge)</i> , 2002, 129, 3021-32.	2.5	60
50	EVOLUTION: Insights into Innovation. <i>Science</i> , 2004, 304, 1117-1119.	12.6	59
51	The challenges and scope of theoretical biology. <i>Journal of Theoretical Biology</i> , 2011, 276, 269-276.	1.7	56
52	The Origin of Bodyplans. <i>American Zoologist</i> , 1999, 39, 617-629.	0.7	52
53	A mixed Ediacaran-metazoan assemblage from the Zaris Sub-basin, Namibia. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2016, 459, 198-208.	2.3	52
54	Dynamic response of Permian brachiopod communities to long-term environmental change. <i>Nature</i> , 2004, 428, 738-741.	27.8	46

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55	Elvis Taxa. <i>Palaaios</i> , 1993, 8, 623.	1.3	42
56	DATES AND RATES: Temporal Resolution in the Deep Time Stratigraphic Record. <i>Annual Review of Earth and Planetary Sciences</i> , 2006, 34, 569-590.	11.0	42
57	A conceptual framework of evolutionary novelty and innovation. <i>Biological Reviews</i> , 2021, 96, 1-15.	10.4	42
58	Metazoan phylogeny and the Cambrian radiation. <i>Trends in Ecology and Evolution</i> , 1991, 6, 131-134.	8.7	40
59	MACROEVOLUTION: Seeds of Diversity. <i>Science</i> , 2005, 308, 1752-1753.	12.6	39
60	CRITICAL ISSUES OF SCALE IN PALEOECOLOGY. <i>Palaaios</i> , 2009, 24, 1-4.	1.3	39
61	Carboniferous-Triassic gastropod diversity patterns and the Permo-Triassic mass extinction. <i>Paleobiology</i> , 1990, 16, 187-203.	2.0	38
62	Regional Paleogeology of Permian Gastropod Genera, Southwestern United States and the End-Permian Mass Extinction. <i>Palaaios</i> , 1989, 4, 424.	1.3	37
63	FOSSIL FISHES FROM THE LOWER TRIASSIC OF MAJIASHAN, CHAOHU, ANHUI PROVINCE, CHINA. <i>Journal of Paleontology</i> , 2006, 80, 146-161.	0.8	37
64	Evolutionary uniformitarianism. <i>Developmental Biology</i> , 2011, 357, 27-34.	2.0	37
65	The origin of metazoan development: a palaeobiological perspective. <i>Biological Journal of the Linnean Society</i> , 1993, 50, 255-274.	1.6	35
66	Simple model of recovery dynamics after mass extinction. <i>Journal of Theoretical Biology</i> , 2010, 267, 193-200.	1.7	35
67	Patterns of convergence in general shell form among Paleozoic gastropods. <i>Paleobiology</i> , 2006, 32, 316-337.	2.0	33
68	Was the Ediacaran "Cambrian radiation a unique evolutionary event?. <i>Paleobiology</i> , 2015, 41, 1-15.	2.0	32
69	Impact at the Permo-Triassic Boundary: A Critical Evaluation. <i>Astrobiology</i> , 2003, 3, 67-74.	3.0	30
70	Late Triassic (Late Norian) gastropods from the Wallowa Terrane (Idaho, USA). <i>Palaontologische Zeitschrift</i> , 2004, 78, 361-416.	1.6	29
71	Increasing returns, ecological feedback and the Early Triassic recovery. <i>Palaeworld</i> , 2007, 16, 9-15.	1.1	29
72	Recoveries and Radiations: Gastropods After the Permo-Triassic Mass Extinction. <i>Geological Society Special Publication</i> , 1996, 102, 223-229.	1.3	28

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73	Evolutionary innovation and stability in animal gene networks. <i>Journal of Experimental Zoology Part B: Molecular and Developmental Evolution</i> , 2010, 314B, 182-186.	1.3	28
74	Novelties That Change Carrying Capacity. <i>Journal of Experimental Zoology Part B: Molecular and Developmental Evolution</i> , 2012, 318, 460-465.	1.3	28
75	The topology of evolutionary novelty and innovation in macroevolution. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2017, 372, 20160422.	4.0	26
76	Progress, problems and prospects: An overview of the Guadalupian Series of South China and North America. <i>Earth-Science Reviews</i> , 2020, 211, 103412.	9.1	26
77	CHANGE AND STABILITY IN PERMIAN BRACHIOPOD COMMUNITIES FROM WESTERN TEXAS. <i>Palaios</i> , 2009, 24, 27-40.	1.3	23
78	Ecospace Utilization During the Ediacaran Radiation and the Cambrian Eco-explosion. <i>Topics in Geobiology</i> , 2011, , 111-133.	0.5	23
79	Life's downs and ups. <i>Nature</i> , 2000, 404, 129-130.	27.8	22
80	Testing for causal relationships between large pyroclastic volcanic eruptions and mass extinctions. <i>Geophysical Research Letters</i> , 1992, 19, 893-896.	4.0	19
81	A public goods approach to major evolutionary innovations. <i>Geobiology</i> , 2015, 13, 308-315.	2.4	19
82	High-precision U-Pb zircon age constraints on the Guadalupian in West Texas, USA. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2020, 548, 109668.	2.3	19
83	Developmental push or environmental pull? The causes of macroevolutionary dynamics. <i>History and Philosophy of the Life Sciences</i> , 2017, 39, 36.	1.1	16
84	EvoChromo: towards a synthesis of chromatin biology and evolution. <i>Development (Cambridge)</i> , 2019, 146, .	2.5	16
85	The genus <i>Glyptospira</i> (Gastropoda: Trochacea) from the Permian of the southwestern United States. <i>Journal of Paleontology</i> , 1988, 62, 868-879.	0.8	14
86	Molecular clocks, molecular phylogenies and the origin of phyla. <i>Lethaia</i> , 1989, 22, 251-257.	1.4	14
87	Prospects for a General Theory of Evolutionary Novelty. <i>Journal of Computational Biology</i> , 2019, 26, 735-744.	1.6	14
88	Origin of Metazoan Developmental Toolkits and Their Expression in the Fossil Record. <i>Advances in Marine Genomics</i> , 2015, , 47-77.	1.2	14
89	GASTROPODS FROM THE PERMIAN OF GUANGXI AND YUNNAN PROVINCES, SOUTH CHINA. <i>Journal of Paleontology</i> , 2002, 76, 1-49.	0.8	13
90	<i>Battenizyga</i> , a new Early Triassic gastropod genus with a discussion of the caenogastropod evolution at the Permian/Triassic boundary. <i>Palaontologische Zeitschrift</i> , 2002, 76, 21-27.	1.6	13

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91	Temporal acuity and the rate and dynamics of mass extinctions. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3203-3204.	7.1	13
92	Evolutionary dynamics of gene regulation. Current Topics in Developmental Biology, 2020, 139, 407-431.	2.2	12
93	Wonderful Ediacarans, wonderful cnidarians?. Evolution & Development, 2008, 10, 263-264.	2.0	11
94	A call to the custodians of deep time. Nature, 2009, 462, 282-283.	27.8	11
95	Chemical clues to the earliest animal fossils. Science, 2018, 361, 1198-1199.	12.6	11
96	Biospheric perturbations during Gondwanan times: From the Neoproterozoic-Cambrian radiation to the end-Permian crisis. Journal of African Earth Sciences, 1999, 28, 115-127.	2.0	9
97	Latitudinal diversity gradient dynamics during Carboniferous to Triassic icehouse and greenhouse climates. Geology, 2022, 50, 1166-1171.	4.4	9
98	The End-Permian mass extinction: What really happened and did it matter?. Trends in Ecology and Evolution, 1989, 4, 225-229.	8.7	8
99	Evolutionary contingency. Current Biology, 2006, 16, R825-R826.	3.9	8
100	Developmental processes in Ediacara macrofossils. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20203055.	2.6	7
101	The role of public goods in planetary evolution. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160359.	3.4	6
102	One Very Long Argument. Biology and Philosophy, 2004, 19, 17-28.	1.4	5
103	Macroevolution: Dynamics of Diversity. Current Biology, 2011, 21, R1000-R1001.	3.9	5
104	Ediacara growing pains: modular addition and development in <i>Dickinsonia costata</i> . Paleobiology, 2022, 48, 83-98.	2.0	5
105	New Late Triassic gastropods from the wallowa Terrane (Idaho) and their biogeographic significance. Facies, 2001, 45, 87-92.	1.4	4
106	The Evolution of Arthropod Body Plans: Integrating Phylogeny, Fossils, and Development—An Introduction to the Symposium. Integrative and Comparative Biology, 2017, 57, 450-454.	2.0	4
107	Developmental capacity and the early evolution of animals. Journal of the Geological Society, 2021, 178, .	2.1	4
108	A LATE PERMIAN CHINESE GASTROPOD SPECIES, POSSIBLY LARVAL, IN THE MIDDLE PENNSYLVANIAN OF NEW MEXICO. Journal of Paleontology, 2004, 78, 420-423.	0.8	2

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109	Non-detection of C60 fullerene at two mass extinction horizons. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 176, 18-25.	3.9	2
110	Eric Davidson and deep time. <i>History and Philosophy of the Life Sciences</i> , 2017, 39, 29.	1.1	1
111	The Global Stratotype Section and Point (GSSP) for the base of the Capitanian Stage (Guadalupian,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5	1.2	1
112	The Mother of Mass Extinctions. <i>Palaios</i> , 1991, 6, 517.	1.3	0
113	Presentation of the Charles Schuchert Award of the Paleontological Society to Charles R. Marshall. <i>Journal of Paleontology</i> , 2000, 74, 758-758.	0.8	0
114	PRESENTATION OF THE CHARLES SCHUCHERT AWARD OF THE PALEONTOLOGICAL SOCIETY TO CHARLES R. MARSHALL. <i>Journal of Paleontology</i> , 2000, 74, 758-760.	0.8	0
115	Opportunities and Challenges of a Highly Resolved Geological Timescale. <i>The Paleontological Society Papers</i> , 2006, 12, 171-180.	0.6	0
116	Endless Forms Most Beautiful. Sean B. Carroll. (2005, W. W. Norton.) \$25.95. ISBN 0-393-06016-0. <i>Artificial Life</i> , 2007, 13, 87-89.	1.3	0
117	Otherworldly Earths: The Future of Deep Time Research. <i>Eos</i> , 2011, 92, 55-55.	0.1	0
118	Eric Davidson (1937â€“2015). <i>Current Biology</i> , 2015, 25, R968-R969.	3.9	0
119	David M. Raup (1933â€“2015). <i>Nature</i> , 2015, 524, 36-36.	27.8	0
120	Eric Davidson (1937â€“2015). <i>Science</i> , 2015, 350, 517-517.	12.6	0
121	The Origin of Higher Taxa: Palaeobiological, Developmental and Ecological Perspectives.â€“ by T. S. Kemp.. <i>Systematic Biology</i> , 2016, 65, 558-559.	5.6	0
122	Tempos and modes of collectivity in the history of life. <i>Theory in Biosciences</i> , 2019, 140, 343-351.	1.4	0
123	Biotic Reshufflings: <i>The Paleobiogeography of China</i> . Yin Hongfu, Ed. Oxford University Press, New York, 1994. xiv, 370 pp., illus. \$120 or Â£80. Oxford Biogeography Series, 8. Translated from the Chinese edition (1988).. <i>Science</i> , 1995, 267, 2012-2012.	12.6	0
124	<i>The Invertebrate Tree of Life</i>. By Gonzalo Giribet and Gregory D. Edgecombe. Princeton (New) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 <i>Quarterly Review of Biology</i> , 2020, 95, 336-337.	0.1	0