Philip Conrad James Donoghue

List of Publications by Year
in descending order

217 papers	16,690 citations	16451 64 h-index	20358 116 g-index
228 all docs	228 docs citations	228 times ranked	12951 citing authors

#	Article	IF	Citations
1	Paleontological Evidence to Date the Tree of Life. Molecular Biology and Evolution, 2006, 24, 26-53.	8.9	834
2	The timescale of early land plant evolution. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2274-E2283.	7.1	654
3	Best Practices for Justifying Fossil Calibrations. Systematic Biology, 2012, 61, 346-359.	5.6	616
4	Phylogenomic datasets provide both precision and accuracy in estimating the timescale of placental mammal phylogeny. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 3491-3500.	2.6	449
5	The Interrelationships of Land Plants and the Nature of the Ancestral Embryophyte. Current Biology, 2018, 28, 733-745.e2.	3.9	398
6	MicroRNAs and the advent of vertebrate morphological complexity. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2946-2950.	7.1	373
7	Uncertainty in the Timing of Origin of Animals and the Limits of Precision in Molecular Timescales. Current Biology, 2015, 25, 2939-2950.	3.9	370
8	Rocks and clocks: calibrating the Tree of Life using fossils and molecules. Trends in Ecology and Evolution, 2007, 22, 424-431.	8.7	360
9	Establishing a timeâ€scale for plant evolution. New Phytologist, 2011, 192, 266-301.	7.3	306
10	Conodont affinity and chordate phylogeny. Biological Reviews, 2000, 75, 191-251.	10.4	304
11	Synchrotron X-ray tomographic microscopy of fossil embryos. Nature, 2006, 442, 680-683.	27.8	279
12	Integrated genomic and fossil evidence illuminates lifeâ€™s early evolution and eukaryote origin. Nature Ecology and Evolution, 2018, 2, 1556-1562.	7.8	274
13	microRNAs reveal the interrelationships of hagfish, lampreys, and gnathostomes and the nature of the ancestral vertebrate. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19379-19383.	7.1	257
14	The Impact of the Representation of Fossil Calibrations on Bayesian Estimation of Species Divergence Times. Systematic Biology, 2010, 59, 74-89.	5.6	247
15	Bayesian molecular clock dating of species divergences in the genomics era. Nature Reviews Genetics, 2016, 17, 71-80.	16.3	244
16	Whole-Genome Duplication and Plant Macroevolution. Trends in Plant Science, 2018, 23, 933-945.	8.8	244
17	Genome duplication, extinction and vertebrate evolution. Trends in Ecology and Evolution, 2005, 20, 312-319.	8.7	231
18	Origin and evolution of the integumentary skeleton in nonâ€tetrapod vertebrates. Journal of Anatomy, 2009, 214, 409-440.	1.5	207

#	Article	IF	Citations
19	Cyanobacteria and the Great Oxidation Event: evidence from genes and fossils. Palaeontology, 2015, 58, 769-785.	2.2	207
20	Exploring uncertainty in the calibration of the molecular clock. Biology Letters, 2012, 8, 156-159.	2.3	206
21	A virtual world of paleontology. Trends in Ecology and Evolution, 2014, 29, 347-357.	8.7	205
22	Origin and early evolution of vertebrate skeletonization. Microscopy Research and Technique, 2002, 59, 352-372.	2.2	197
23	The Interrelationships of Placental Mammals and the Limits of Phylogenetic Inference. Genome Biology and Evolution, 2016, 8, 330-344.	2.5	195
24	Cellular and Subcellular Structure of Neoproterozoic Animal Embryos. Science, 2006, 314, 291-294.	12.6	190
25	Calibration uncertainty in molecular dating analyses: there is no substitute for the prior evaluation of time priors. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20141013.	2.6	184
26	Evolutionary history of plant microRNAs. Trends in Plant Science, 2014, 19, 175-182.	8.8	182
27	Phase-contrast X-ray microtomography links Cretaceous seeds with Gnetales and Bennettitales. Nature, 2007, 450, 549-552.	27.8	172
28	Bayesian methods outperform parsimony but at the expense of precision in the estimation of phylogeny from discrete morphological data. Biology Letters, 2016, 12, 20160081.	2.3	160
29	Fossil embryos from the Middle and Late Cambrian period of Hunan, south China. Nature, 2004, 427, 237-240.	27.8	154
30	The â€˜Orstenâ€™â€”More than a Cambrian Konservat-LagerstÃtte yielding exceptional preservation. Palaeoworld, 2006, 15, 266-282.	1.1	150
31	Early evolution of vertebrate skeletal tissues and cellular interactions, and the canalization of skeletal development. Journal of Experimental Zoology Part B: Molecular and Developmental Evolution, 2006, 306B, 278-294.	1.3	149
32	Constraining uncertainty in the timescale of angiosperm evolution and the veracity of a Cretaceous Terrestrial Revolution. New Phytologist, 2018, 218, 819-834.	7.3	149
33	Distinguishing heat from light in debate over controversial fossils. BioEssays, 2009, 31, 178-189.	2.5	145
34	Fossilized Nuclei and Germination Structures Identify Ediacaran â€œAnimal Embryosâ€•as Encysting Protists. Science, 2011, 334, 1696-1699.	12.6	142
35	Evolutionary crossroads in developmental biology: cyclostomes (lamprey and hagfish). Development (Cambridge), 2012, 139, 2091-2099.	2.5	142
36	A divergence dating analysis of turtles using fossil calibrations: an example of best practices. Journal of Paleontology, 2013, 87, 612-634.	0.8	128

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37	ORIENTATION AND ANATOMICAL NOTATION IN CONODONTS. Journal of Paleontology, 2000, 74, 113-122.	0.8	127
38	Dating Tips for Divergence-Time Estimation. Trends in Genetics, 2015, 31, 637-650.	6.7	126
39	The origin and evolution of the neural crest. BioEssays, 2008, 30, 530-541.	2.5	124
40	Fossilized embryos are widespread but the record is temporally and taxonomically biased. Evolution & Development, 2006, 8, 232-238.	2.0	119
41	Embryo fossilization is a biological process mediated by microbial biofilms. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19360-19365.	7.1	119
42	miRNAs: Small Genes with Big Potential in Metazoan Phylogenetics. Molecular Biology and Evolution, 2013, 30, 2369-2382.	8.9	118
43	Integrated phylogenomics and fossil data illuminate the evolution of beetles. Royal Society Open Science, 2022, 9, 211771.	2.4	117
44	Uncertain-tree: discriminating among competing approaches to the phylogenetic analysis of phenotype data. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20162290.	2.6	114
45	Experimental taphonomy shows the feasibility of fossil embryos. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5846-5851.	7.1	112
46	Fossil jawless fish from China foreshadows early jawed vertebrate anatomy. Nature, 2011, 476, 324-327.	27.8	112
47	The origin of animals: Can molecular clocks and the fossil record be reconciled?. BioEssays, 2017, 39, 1-12.	2.5	105
48	Growth and patterning in the conodont skeleton. Philosophical Transactions of the Royal Society B: Biological Sciences, 1998, 353, 633-666.	4.0	103
49	Open data and digital morphology. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20170194.	2.6	103
50	Development of teeth and jaws in the earliest jawed vertebrates. Nature, 2012, 491, 748-751.	27.8	98
51	Do miRNAs have a deep evolutionary history?. BioEssays, 2012, 34, 857-866.	2.5	96
52	Orientation and anatomical notation in conodonts. Journal of Paleontology, 2000, 74, 113-122.	0.8	89
53	Neither phylogenomic nor palaeontological data support a Palaeogene origin of placental mammals. Biology Letters, 2014, 10, 20131003.	2.3	87
54	Nuclear protein phylogenies support the monophyly of the three bryophyte groups (Bryophyta) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	7.3	84

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55	A species-level timeline of mammal evolution integrating phylogenomic data. Nature, 2022, 602, 263-267.	27.8	84
56	MOLECULAR PALAEOBIOLOGY. Palaeontology, 2007, 50, 775-809.	2.2	83
57	Are palaeoscolecids ancestral ecdysozoans?. Evolution & Development, 2010, 12, 177-200.	2.0	83
58	The homology and phylogeny of chondrichthyan tooth enameloid. Journal of Morphology, 2007, 268, 33-49.	1.2	81
59	Ediacaran developmental biology. Biological Reviews, 2018, 93, 914-932.	10.4	80
60	The origin of conodonts and of vertebrate mineralized skeletons. Nature, 2013, 502, 546-549.	27.8	79
61	The evolution of methods for establishing evolutionary timescales. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20160020.	4.0	79
62	Evolution of metazoan morphological disparity. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8909-E8918.	7.1	78
63	The anatomy, affinity, and phylogenetic significance of <i>Markuelia</i>. Evolution & Development, 2005, 7, 468-482.	2.0	75
64	Architecture and functional morphology of the skeletal apparatus of ozarkodinid conodonts. Philosophical Transactions of the Royal Society B: Biological Sciences, 1997, 352, 1545-1564.	4.0	74
65	Evolutionary Origins of Animal Skeletal Biomineralization. Cells Tissues Organs, 2011, 194, 98-102.	2.3	74
66	The interrelationships of â€˜complexâ€™ conodonts (Vertebrata). Journal of Systematic Palaeontology, 2008, 6, 119-153.	1.5	72
67	Constraints on the timescale of animal evolutionary history. Palaeontologia Electronica, 0, , .	0.9	71
68	The evolutionary emergence of land plants. Current Biology, 2021, 31, R1281-R1298.	3.9	67
69	Embryos, polyps and medusae of the Early Cambrian scyphozoan <i>Olivooides</i>. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20130071.	2.6	66
70	Experimental taphonomy of <i>Artemia</i> reveals the role of endogenous microbes in mediating decay and fossilization. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20150476.	2.6	65
71	Size is not everything: rates of genome size evolution, not <i>C</i> -value, correlate with speciation in angiosperms. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20152289.	2.6	65
72	CONODONTS: PAST, PRESENT, FUTURE. Journal of Paleontology, 2001, 75, 1174-1184.	0.8	62

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73	Evolution of development of the vertebrate dermal and oral skeletons: unraveling concepts, regulatory theories, and homologies. Paleobiology, 2002, 28, 474-507.	2.0	62
74	Probabilistic methods surpass parsimony when assessing clade support in phylogenetic analyses of discrete morphological data. Palaeontology, 2018, 61, 105-118.	2.2	61
75	The ins and outs of the evolutionary origin of teeth. Evolution & Development, 2016, 18, 19-30.	2.0	60
76	Disparities in the analysis of morphological disparity. Biology Letters, 2020, 16, 20200199.	2.3	60
77	The anatomy of <i>Turinia pagei</i> (Powrie), and the phylogenetic status of the Thelodonti. Transactions of the Royal Society of Edinburgh: Earth Sciences, 2001, 92, 15-37.	0.7	59
78	Fossil data support a pre-Cretaceous origin of flowering plants. Nature Ecology and Evolution, 2021, 5, 449-457.	7.8	59
79	Histology of â€œplacodermâ€•dermal skeletons: Implications for the nature of the ancestral gnathostome. Journal of Morphology, 2013, 274, 627-644.	1.2	58
80	Saving the stem groupâ€"a contradiction in terms?. Paleobiology, 2005, 31, 553.	2.0	57
81	Early vertebrate evolution. Palaeontology, 2014, 57, 879-893.	2.2	56
82	The Fossil Calibration Databaseâ€"A New Resource for Divergence Dating. Systematic Biology, 2015, 64, 853-859.	5.6	54
83	The anatomy, taphonomy, taxonomy and systematic affinity of Markuelia: Early Cambrian to Early Ordovician scalidophorans. Palaeontology, 2010, 53, 1291-1314.	2.2	53
84	Origins of multicellularity. Nature, 2010, 466, 41-42.	27.8	51
85	Testing the molecular clock using mechanistic models of fossil preservation and molecular evolution. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20170227.	2.6	51
86	Growth, function, and the conodont fossil record. Geology, 1999, 27, 251.	4.4	50
87	MicroRNA annotation of plant genomes â^' Do it right or not at all. BioEssays, 2017, 39, 1600113.	2.5	50
88	The sharpest tools in the box? Quantitative analysis of conodont element functional morphology. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 2849-2854.	2.6	49
89	Microstructural variation in conodont enamel is a functional adaptation. Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 1691-1698.	2.6	48
90	Eukaryogenesis and oxygen in Earth history. Nature Ecology and Evolution, 2022, 6, 520-532.	7.8	48

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91	ONTOGENY AND TAPHONOMY: AN EXPERIMENTAL TAPHONOMY STUDY OF THE DEVELOPMENT OF THE BRINE SHRIMP <i>ARTEMIA SALINA</i>. Palaeontology, 2009, 52, 169-186.	2.2	47
92	A daily-updated tree of (sequenced) life as a reference for genome research. Scientific Reports, 2013, 3, 2015.	3.3	47
93	Constraining the Deep Origin of Parasitic Flatworms and Host-Interactions with Fossil Evidence. Advances in Parasitology, 2015, 90, 93-135.	3.2	47
94	Constraining the timing of whole genome duplication in plant evolutionary history. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20170912.	2.6	47
95	Tectonic blocks and molecular clocks. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20160098.	4.0	46
96	Histology of the galeaspid dermoskeleton and endoskeleton, and the origin and early evolution of the vertebrate cranial endoskeleton. Journal of Vertebrate Paleontology, 2005, 25, 745-756.	1.0	45
97	Experimental taphonomy of giant sulphur bacteria: implications for the interpretation of the embryo-like Ediacaran Doushantuo fossils. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 1857-1864.	2.6	45
98	Do cladistic and morphometric data capture common patterns of morphological disparity?. Palaeontology, 2015, 58, 393-399.	2.2	45
99	Experimental analysis of softâ€tissue fossilization: opening the black box. Palaeontology, 2018, 61, 317-323.	2.2	45
100	The Efficacy of Consensus Tree Methods for Summarizing Phylogenetic Relationships from a Posterior Sample of Trees Estimated from Morphological Data. Systematic Biology, 2018, 67, 354-362.	5.6	45
101	Pigmented anatomy in Carboniferous cyclostomes and the evolution of the vertebrate eye. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20161151.	2.6	44
102	Histology and affinity of anaspids, and the early evolution of the vertebrate dermal skeleton. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20152917.	2.6	44
103	Probabilistic methods outperform parsimony in the phylogenetic analysis of data simulated without a probabilistic model. Palaeontology, 2019, 62, 1-17.	2.2	44
104	Distinguishing geology from biology in the Ediacaran Doushantuo biota relaxes constraints on the timing of the origin of bilaterians. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 2369-2376.	2.6	43
105	The Weng'an Biota (Doushantuo Formation): an Ediacaran window on soft-bodied and multicellular microorganisms. Journal of the Geological Society, 2017, 174, 793-802.	2.1	43
106	Tips and nodes are complementary not competing approaches to the calibration of molecular clocks. Biology Letters, 2016, 12, 20150975.	2.3	42
107	Unicellular Origin of the Animal MicroRNA Machinery. Current Biology, 2018, 28, 3288-3295.e5.	3.9	42
108	Embryonic identity crisis. Nature, 2007, 445, 155-156.	27.8	41

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109	Well-Annotated microRNAomes Do Not Evidence Pervasive miRNA Loss. Genome Biology and Evolution, 2018, 10, 1457-1470.	2.5	41
110	Conodonts: Past, present, future. Journal of Paleontology, 2001, 75, 1174-1184.	0.8	39
111	Skeletal histology of <i>Bothriolepis canadensis</i> (Placodermi, Antiarchi) and evolution of the skeleton at the origin of jawed vertebrates. Journal of Morphology, 2009, 270, 1364-1380.	1.2	39
112	The evolution of insect biodiversity. Current Biology, 2021, 31, R1299-R1311.	3.9	39
113	Histology and affinity of the earliest armoured vertebrate. Biology Letters, 2005, 1, 446-449.	2.3	37
114	Conodont anatomy, chordate phylogeny and vertebrate classification. Lethaia, 1998, 31, 211-219.	1.4	36
115	The developmental biology of <i>Charnia</i> and the eumetazoan affinity of the Ediacaran rangeomorphs. Science Advances, 2021, 7, .	10.3	36
116	Histology of the heterostracan dermal skeleton: Insight into the origin of the vertebrate mineralised skeleton. Journal of Morphology, 2015, 276, 657-680.	1.2	35
117	Evolution of the Calcium-Based Intracellular Signaling System. Genome Biology and Evolution, 2016, 8, 2118-2132.	2.5	35
118	Teeth before jaws? Comparative analysis of the structure and development of the external and internal scales in the extinct jawless vertebrate<i><scp>L</scp>oganellia scotica</i>. Evolution & Development, 2011, 13, 523-532.	2.0	34
119	Conodonts Meet Cladistics: Recovering Relationships and Assessing the Completeness of the Conodont Fossil Record. Palaeontology, 2001, 44, 65-93.	2.2	33
120	A merciful death for the â€œearliest bilaterian,â€•Vernanimalcula. Evolution & Development, 2012, 14, 421-427.	2.0	33
121	Mitochondrial genomes illuminate the evolutionary history of the Western honey bee (Apis mellifera). Scientific Reports, 2020, 10, 14515.	3.3	32
122	The fossils of Orsten-type preservation from Middle and Upper Cambrian in Hunan, China â€”â€”Three-dimensionally preserved soft-bodied fossils (Arthropods). Science Bulletin, 2005, 50, 1352.	1.7	31
123	Discriminating signal from noise in the fossil record of early vertebrates reveals cryptic evolutionary history. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20142245.	2.6	31
124	Finite element, occlusal, microwear and microstructural analyses indicate that conodont microstructure is adapted to dental function. Palaeontology, 2014, 57, 1059-1066.	2.2	30
125	Translating taxonomy into the evolution of conodont feeding ecology. Geology, 2016, 44, 247-250.	4.4	30
126	Nuclei and nucleoli in embryo-like fossils from the Ediacaran Wengâ€™an Biota. Precambrian Research, 2017, 301, 145-151.	2.7	30

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127	The Effect of Fossil Sampling on the Estimation of Divergence Times with the Fossilized Birthâ€"Death Process. Systematic Biology, 2020, 69, 124-138.	5.6	30
128	Developmental biology of the early <scp>C</scp>ambrian cnidarian <i><scp>O</scp>livooides</i>. Palaeontology, 2016, 59, 387-407.	2.2	29
129	Empirical realism of simulated data is more important than the model used to generate it: a reply to Goloboff <i>etÂal</i>.. Palaeontology, 2018, 61, 631-635.	2.2	29
130	Enameloid microstructure in the oldest known chondrichthyan teeth. Acta Zoologica, 2009, 90, 103-108.	0.8	28
131	<i>Romundina</i> and the evolutionary origin of teeth. Biology Letters, 2015, 11, 20150326.	2.3	28
132	The nature of aspidin and the evolutionary origin of bone. Nature Ecology and Evolution, 2018, 2, 1501-1506.	7.8	28
133	Deciphering the fossil record of early bilaterian embryonic development in light of experimental taphonomy. Evolution & Development, 2008, 10, 339-349.	2.0	27
134	Coevolution of enamel, ganoin, enameloid, and their matrix SCPP genes in osteichthyans. IScience, 2021, 24, 102023.	4.1	27
135	Conodont affinity and chordate phylogeny. Biological Reviews, 2000, 75, 191-251.	10.4	26
136	Ontogeny and microstructure of the enigmatic Cambrian tommotiid <i>Sunnaginia</i> Missarzhevsky, 1969. Palaeontology, 2012, 55, 661-676.	2.2	26
137	New palaeoscolecid worms from the Furongian (upper Cambrian) of Hunan, South China: is <i>Markuelia</i> an embryonic palaeoscolecid?. Palaeontology, 2012, 55, 613-622.	2.2	25
138	RelTime Rates Collapse to a Strict Clock When Estimating the Timeline of Animal Diversification. Genome Biology and Evolution, 2017, 9, 1320-1328.	2.5	25
139	The impact of fossil stratigraphic ranges on tipâ€calibration, and the accuracy and precision of divergence time estimates. Palaeontology, 2020, 63, 67-83.	2.2	25
140	Integrated phylogenomic and fossil evidence of stick and leaf insects (Phasmatodea) reveal a Permianâ€"Triassic co-origination with insectivores. Royal Society Open Science, 2020, 7, 201689.	2.4	25
141	Data curation and modeling of compositional heterogeneity in insect phylogenomics: A case study of the phylogeny of Dytiscoidea (Coleoptera: Adephaga). Molecular Phylogenetics and Evolution, 2020, 147, 106782.	2.7	23
142	Conodonts and the first vertebrates. Endeavour, 1995, 19, 20-27.	0.4	22
143	Evaluating scenarios for the evolutionary assembly of the brachiopod body plan. Evolution & Development, 2014, 16, 13-24.	2.0	22
144	Critical appraisal of tubular putative eumetazoans from the Ediacaran Weng'an Doushantuo biota. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20151169.	2.6	21

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145	Evolution of jaw disparity in fishes. Palaeontology, 2018, 61, 847-854.	2.2	21
146	Plant Evolution: Assembling Land Plants. Current Biology, 2020, 30, R81-R83.	3.9	21
147	Experimental taphonomy of organelles and the fossil record of early eukaryote evolution. Science Advances, 2021, 7, .	10.3	21
148	The Ediacaran origin of Ecdysozoa: integrating fossil and phylogenomic data. Journal of the Geological Society, 2022, 179, .	2.1	21
149	Scanning Electron Microscopy and Synchrotron Radiation X-Ray Tomographic Microscopy of 330 Million Year Old Charcoalified Seed Fern Fertile Organs. Microscopy and Microanalysis, 2009, 15, 166-173.	0.4	20
150	The Trouble with Topology: Phylogenies without Fossils Provide a Revisionist Perspective of Evolutionary History in Topological Analyses of Diversity. Systematic Biology, 2011, 60, 700-712.	5.6	20
151	The spatial and temporal diversification of Early Palaeozoic vertebrates. Geological Society Special Publication, 2002, 194, 69-83.	1.3	19
152	Parsimony and maximum-likelihood phylogenetic analyses of morphology do not generally integrate uncertainty in inferring evolutionary history: a response to Brown <i>et al.</i>. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20171636.	2.6	19
153	The early Cambrian fossil embryo<i>Pseudooides</i>is a direct-developing cnidarian, not an early ecdysozoan. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20172188.	2.6	19
154	Testing models of dental development in the earliest bony vertebrates, Andreolepis and Lophosteus. Biology Letters, 2012, 8, 833-837.	2.3	18
155	Gondolelloid multielement conodont apparatus (Nicoraella) from the Middle Triassic of Yunnan Province, southwestern China. Palaeogeography, Palaeoclimatology, Palaeoecology, 2019, 522, 98-110.	2.3	18
156	Conodonts: A Sister Group to Hagfishes?. , 1998, , 15-31.		18
157	An Early Triassic conodont with periodic growth?. Journal of Micropalaeontology, 1997, 16, 65-72.	3.6	17
158	Origin of horsetails and the role of whole-genome duplication in plant macroevolution. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20191662.	2.6	17
159	Fleas are parasitic scorpionflies . Palaeoentomology, 2020, 3, 641-653.	1.0	17
160	BASAL TISSUE STRUCTURE IN THE EARLIEST EUCONODONTS: TESTING HYPOTHESES OF DEVELOPMENTAL PLASTICITY IN EUCONODONT PHYLOGENY. Palaeontology, 2005, 48, 411-421.	2.2	16
161	Conchodontus, Mitrellataxis and Fungulodus: Conodonts, fish or both?. Lethaia, 2007, 31, 283-292.	1.4	16
162	Is evolutionary history repeatedly rewritten in light of new fossil discoveries?. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 599-604.	2.6	16

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163	There is no general model for occlusal kinematics in conodonts. Lethaia, 2014, 47, 547-555.	1.4	16
164	Anatomy of the Ediacaran rangeomorph <i>Charnia masoni</i>. Papers in Palaeontology, 2019, 5, 157-176.	1.5	16
165	The Early Ediacaran Caveasphaera Foreshadows the Evolutionary Origin of Animal-like Embryology. Current Biology, 2019, 29, 4307-4314.e2.	3.9	16
166	Increasing morphological disparity and decreasing optimality for jaw speed and strength during the radiation of jawed vertebrates. Science Advances, 2022, 8, eabl3644.	10.3	16
167	Testing microstructural adaptation in the earliest dental tools. Biology Letters, 2012, 8, 952-955.	2.3	15
168	Reply to Hedges et al.: Accurate timetrees do indeed require accurate calibrations. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9512-E9513.	7.1	15
169	Nucleus preservation in early Ediacaran Weng'an embryo-like fossils, experimental taphonomy of nuclei and implications for reading the eukaryote fossil record. Interface Focus, 2020, 10, 20200015.	3.0	15
170	Response to Comment on â€œFossilized Nuclei and Germination Structures Identify Ediacaran â€˜Animal Embryosâ€™ as Encysting Protistsâ€. Science, 2012, 335, 1169-1169.	12.6	14
171	Acanthodian dental development and the origin of gnathostome dentitions. Nature Ecology and Evolution, 2021, 5, 919-926.	7.8	14
172	Cutting the first â€˜teethâ€™: a new approach to functional analysis of conodont elements. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20131524.	2.6	13
173	Tooth replacement in early sarcopterygians. Royal Society Open Science, 2019, 6, 191173.	2.4	13
174	Computational Fluid Dynamics Suggests Ecological Diversification among Stem-Gnathostomes. Current Biology, 2020, 30, 4808-4813.e3.	3.9	13
175	The origin and rise of complex life: progress requires interdisciplinary integration and hypothesis testing. Interface Focus, 2020, 10, 20200024.	3.0	13
176	Developmental paleobiology of the vertebrate skeleton. Journal of Paleontology, 2014, 88, 676-683.	0.8	12
177	Middle Triassic conodont apparatus architecture revealed by synchrotron X-ray microtomography. Palaeoworld, 2019, 28, 429-440.	1.1	12
178	Evolution: The Flowering of Land Plant Evolution. Current Biology, 2019, 29, R753-R756.	3.9	12
179	The anatomy, affinity and phylogenetic significance of<i>Ilemoraspis kirkinskayae</i>(Osteostraci) from the Devonian of Siberia. Journal of Vertebrate Paleontology, 2008, 28, 613-625.	1.0	11
180	A formula for maximum possible steps in multistate characters: isolating matrix parameter effects on measures of evolutionary convergence. Cladistics, 2010, 26, 98-102.	3.3	11

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181	Embryology in Deep Time. , 2015, , 45-63.		11
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194	Developmental biology of <i>Helicoforamina</i> reveals holozoan affinity, cryptic diversity, and adaptation to heterogeneous environments in the early Ediacaran Wengâ€™an biota (Doushantuo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	10.3	8
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