Michael I Coates

List of Publications by Year
in descending order

80 papers	4,855 citations	94269 37 h-index	98622 67 g-index
85 all docs	85 docs citations	85 times ranked	2665 citing authors

#	Article	IF	Citations
1	Polydactyly in the earliest known tetrapod limbs. Nature, 1990, 347, 66-69.	13.7	299
2	A new time-scale for ray-finned fish evolution. Proceedings of the Royal Society B: Biological Sciences, 2007, 274, 489-498.	1.2	298
3	Early tetrapod relationships revisited. Biological Reviews, 2003, 78, 251-345.	4.7	246
4	A lamprey from the Devonian period of South Africa. Nature, 2006, 443, 981-984.	13.7	219
5	Dates, nodes and character conflict: Addressing the Lissamphibian origin problem. Journal of Systematic Palaeontology, 2007, 5, 69-122.	0.6	186
6	End-Devonian extinction and a bottleneck in the early evolution of modern jawed vertebrates. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10131-10135.	3.3	183
7	Acanthodes and shark-like conditions in the last common ancestor of modern gnathostomes. Nature, 2012, 486, 247-250.	13.7	159
8	Fish-like gills and breathing in the earliest known tetrapod. Nature, 1991, 352, 234-236.	13.7	148
9	Evolutionary patterns in early tetrapods. I. Rapid initial diversification followed by decrease in rates of character change. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 2107-2111.	1.2	146
10	The postcranial skeleton of the Devonian tetrapod Tulerpeton curtum Lebedev. Zoological Journal of the Linnean Society, 1995, 114, 307-348.	1.0	144
11	The origin of vertebrate limbs. Development (Cambridge), 1994, 1994, 169-180.	1.2	125
12	Fins to limbs: what the fossils say1. Evolution & Development, 2002, 4, 390-401.	1.1	113
13	A New Technique for Identifying Sequence Heterochrony. Systematic Biology, 2005, 54, 230-240.	2.7	106
14	Fins, limbs, and tails: outgrowths and axial patterning in vertebrate evolution. BioEssays, 1998, 20, 371-381.	1.2	102
15	Endocranial preservation of a Carboniferous actinopterygian from Lancashire, UK, and the interrelationships of primitive actinopterygians. Philosophical Transactions of the Royal Society B: Biological Sciences, 1999, 354, 435-462.	1.8	102
16	Evolutionary origins of the vertebrate dentition: phylogenetic patterns and developmental evolution. European Journal of Oral Sciences, 1998, 106, 482-500.	0.7	97
17	Hagfish from the Cretaceous Tethys Sea and a reconciliation of the morphologicalâ€"molecular conflict in early vertebrate phylogeny. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2146-2151.	3.3	97
18	Analyzing Developmental Sequences Within a Phylogenetic Framework. Systematic Biology, 2002, 51, 478-491.	2.7	91

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19	Behavioral evidence for the evolution of walking and bounding before terrestriality in sarcopterygian fishes. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 21146-21151.	3.3	89
20	The evolution of paired fins. Theory in Biosciences, 2003, 122, 266-287.	0.6	87
21	The Early Evolution of the Tetrapod Humerus. Science, 2004, 304, 90-93.	6.0	86
22	Ever Since Owen: Changing Perspectives on the Early Evolution of Tetrapods. Annual Review of Ecology, Evolution, and Systematics, 2008, 39, 571-592.	3.8	82
23	Analyzing evolutionary patterns in amniote embryonic development*. Evolution & Development, 2002, 4, 292-302.	1.1	79
24	The most primitive osteichthyan braincase?. Nature, 2000, 403, 185-188.	13.7	69
25	A symmoriiform chondrichthyan braincase and the origin of chimaeroid fishes. Nature, 2017, 541, 208-211.	13.7	65
26	Evolutionary patterns in early tetrapods. II. Differing constraints on available character space among clades. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 2113-2118.	1.2	59
27	An early chondrichthyan and the evolutionary assembly of a shark body plan. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20172418.	1.2	58
28	Branching, segmentation and the metapterygial axis: pattern versus process in the vertebrate limb. BioEssays, 2002, 24, 460-465.	1.2	57
29	A supertree of early tetrapods. Proceedings of the Royal Society B: Biological Sciences, 2003, 270, 2507-2516.	1.2	57
30	First discovery of a primitive coelacanth fin fills a major gap in the evolution of lobed fins and limbs. Evolution & Development, 2007, 9, 329-337.	1.1	57
31	A NEW RECONSTRUCTION OF<i>ONYCHOSELACHE TRAQUAIRI</i>, COMMENTS ON EARLY CHONDRICHTHYAN PECTORAL GIRDLES AND HYBODONTIFORM PHYLOGENY. Palaeontology, 2007, 50, 1421-1446.	1.0	54
32	From Haeckel to event-pairing: the evolution of developmental sequences. Theory in Biosciences, 2002, 121, 297-320.	0.6	51
33	Limb Evolution: Fish fins or tetrapod limbs â€" a simple twist of fate?. Current Biology, 1995, 5, 844-848.	1.8	48
34	Nice snake, shame about the legs. Trends in Ecology and Evolution, 2000, 15, 503-507.	4.2	48
35	Spines and tissues of ancient sharks. Nature, 1998, 396, 729-730.	13.7	43
36	A newly recognized fossil coelacanth highlights the early morphological diversification of the clade. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 245-250.	1.2	42

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37	Vertebrate Axial and Appendicular Patterning: The Early Development of Paired Appendages. American Zoologist, 1999, 39, 676-685.	0.7	41
38	The early elasmobranch <i>Phoebodus</i> : phylogenetic relationships, ecomorphology and a new time-scale for shark evolution. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20191336.	1.2	41
39	Non-ammocoete larvae of Palaeozoic stem lampreys. Nature, 2021, 591, 408-412.	13.7	40
40	Chondrichthyanâ€like scales from the Middle Ordovician of Australia. Palaeontology, 2012, 55, 243-247.	1.0	38
41	Embryonic development of the axial column in the little skate,<i>Leucoraja erinacea</i>. Journal of Morphology, 2017, 278, 300-320.	0.6	37
42	Endoskeletal structure in C heirolepis (O steichthyes, A ctinopterygii), An early rayâ€finned fish. Palaeontology, 2015, 58, 849-870.	1.0	36
43	Comparative methods in developmental biology. Zoology, 2001, 104, 278-283.	0.6	35
44	A symmoriiform from the Late Devonian of Morocco demonstrates a derived jaw function in ancient chondrichthyans. Communications Biology, 2020, 3, 681.	2.0	30
45	Some problems with typological thinking in evolution and development. Evolution & Development, 1999, 1, 5-7.	1.1	29
46	Styracopterid (Actinopterygii) ontogeny and the multiple origins of post-Hangenberg deep-bodied fishes. Zoological Journal of the Linnean Society, 2013, 169, 156-199.	1.0	29
47	The long-rostrumed elasmobranch<i>Bandringa</i>Zangerl, 1969, and taphonomy within a Carboniferous shark nursery. Journal of Vertebrate Paleontology, 2014, 34, 22-33.	0.4	27
48	First Shark from the Late Devonian (Frasnian) Gogo Formation, Western Australia Sheds New Light on the Development of Tessellated Calcified Cartilage. PLoS ONE, 2015, 10, e0126066.	1.1	27
49	The systematics of the Mongolepidida (Chondrichthyes) and the Ordovician origins of the clade. PeerJ, 2016, 4, e1850.	0.9	27
50	The origins of adipose fins: an analysis of homoplasy and the serial homology of vertebrate appendages. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20133120.	1.2	26
51	New Palaeontological Contributions to Limb Ontogeny and Phylogeny. , 1991, , 325-337.		25
52	Phylotypic stage theory. Trends in Ecology and Evolution, 1998, 13, 158.	4.2	25
53	The oldest ionoscopiform from China sheds new light on the early evolution of halecomorph fishes. Biology Letters, 2014, 10, 20140204.	1.0	24
54	Early tetrapod evolution. Trends in Ecology and Evolution, 2000, 15, 327-328.	4.2	22

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55	<scp>U</scp>pper <scp>O</scp>rdovician chondrichthyanâ€like scales from <scp>N</scp>orth <scp>A</scp>merica. Palaeontology, 2015, 58, 691-704.	1.0	22
56	Chondrenchelys problematica (Traquair, 1888) redescribed: a Lower Carboniferous, eel-like holocephalan from Scotland. Earth and Environmental Science Transactions of the Royal Society of Edinburgh, 2014, 105, 35-59.	0.3	21
57	Fossil juvenile coelacanths from the Devonian of South Africa shed light on the order of character acquisition in actinistians. Zoological Journal of the Linnean Society, 2015, 175, 360-383.	1.0	21
58	Editorial: Chronicling the birth of a discipline. Evolution & Development, 1999, 1, 1-2.	1.1	20
59	Ancestors and homology. Acta Biotheoretica, 1993, 41, 411-424.	0.7	19
60	Taxonomic revision of<i>Plesiofuro mingshuica</i>from the Lower Triassic of northern Gansu, China, and the relationships of early neopterygian clades. Journal of Vertebrate Paleontology, 2015, 35, e1001515.	0.4	18
61	The tetrapod <i>Caerorhachis bairdi</i> Holmes and Carroll from the Lower Carboniferous of Scotland. Transactions of the Royal Society of Edinburgh: Earth Sciences, 2001, 92, 229-261.	1.0	16
62	First tooth-set outside the jaws in a vertebrate. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 775-779.	1.2	16
63	Embryonic origin of the gnathostome vertebral skeleton. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20172121.	1.2	16
64	High-performance suction feeding in an early elasmobranch. Science Advances, 2019, 5, eaax2742.	4.7	16
65	A fish and tetrapod fauna from Romer's Gap preserved in Scottish Tournaisian floodplain deposits. Palaeontology, 2019, 62, 225-253.	1.0	15
66	<i>Elegestolepis</i>and its kin, the earliest monodontode chondrichthyans. Journal of Vertebrate Paleontology, 2017, 37, e1245664.	0.4	14
67	Feeding structures in the ray-finned fish<i>Eurynotus crenatus</i>(Actinopterygii: Eurynotiformes): implications for trophic diversification among Carboniferous actinopterygians. Earth and Environmental Science Transactions of the Royal Society of Edinburgh, 2018, 109, 33-47.	0.3	14
68	From Haeckel to event-pairing: the evolution of developmental sequences. Theory in Biosciences, 2002, 121, 297-320.	0.6	12
69	â€˜This strange little palaeoniscid': a new early actinopterygian genus, and commentary on pectoral fin conditions and function. Earth and Environmental Science Transactions of the Royal Society of Edinburgh, 2018, 109, 15-31.	0.3	12
70	High-latitude Chondrichthyans from the Late Devonian (Famennian) Witpoort formation of South Africa. Palaontologische Zeitschrift, 2015, 89, 147-169.	0.8	11
71	Beyond the Age of Fishes. Nature, 2009, 458, 413-414.	13.7	10
72	The postcranial anatomy of<i>Whatcheeria deltae</i>and its implications for the family Whatcheeriidae. Zoological Journal of the Linnean Society, 2021, 193, 700-745.	1.0	7

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73	Skeletal and soft tissue completeness of the acanthodian fossil record. Palaeontology, 2022, 65, .	1.0	7
74	The neurocranium of the Lower Carboniferous shark<i>Tristychius arcuatus</i>(Agassiz,). Earth and Environmental Science Transactions of the Royal Society of Edinburgh, 2017, 108, 19-35.	0.3	6
75	Plenty of fish in the tree. Nature, 2017, 549, 167-169.	13.7	3
76	Using Patterns of Fin and Limb Phylogeny to Test Developmental-Evolutionary Scenarios. Novartis Foundation Symposium, 2007, 284, 245-261.	1.2	2
77	There's a ratfish in our cellar!. Geology Today, 1997, 13, 20-23.	0.3	1
78	The last word on a lost world?. Trends in Ecology and Evolution, 2005, 20, 425-426.	4.2	1
79	Fish rising. Trends in Ecology and Evolution, 2012, 27, 10-11.	4.2	1
80	Editorial: Birds, trees, and stems. Evolution & Development, 1999, 1, 137-137.	1.1	0