

Stephanie E Pierce

List of Publications by Year in descending order

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Version: 2024-02-01

73
papers

2,507
citations

185998

28
h-index

233125

45
g-index

81
all docs

81
docs citations

81
times ranked

1741
citing authors

#	ARTICLE	IF	CITATIONS
1	Three-dimensional limb joint mobility in the early tetrapod <i>Ichthyostega</i> . <i>Nature</i> , 2012, 486, 523-526.	13.7	171
2	Patterns of morphospace occupation and mechanical performance in extant crocodylian skulls: A combined geometric morphometric and finite element modeling approach. <i>Journal of Morphology</i> , 2008, 269, 840-864.	0.6	162
3	Combining geometric morphometrics and finite element analysis with evolutionary modeling: towards a synthesis. <i>Journal of Vertebrate Paleontology</i> , 2016, 36, e1111225.	0.4	97
4	Comparative axial morphology in pinnipeds and its correlation with aquatic locomotory behaviour. <i>Journal of Anatomy</i> , 2011, 219, 502-514.	0.9	91
5	Shape and mechanics in thalattosuchian (Crocodylomorpha) skulls: implications for feeding behaviour and niche partitioning. <i>Journal of Anatomy</i> , 2009, 215, 555-576.	0.9	90
6	Morphological and biomechanical disparity of crocodile-line archosaurs following the end-Triassic extinction. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2013, 280, 20131940.	1.2	83
7	<i>Pelagosaurus typus</i> Bronn, 1841 (Mesoeucrocodylia: Thalattosuchia) from the Upper Lias (Toarcian), Tj ETQq1 1 0.784314 rgBT / Overl	0.4	76
8	Morphospace occupation in thalattosuchian crocodylomorphs: skull shape variation, species delineation and temporal patterns. <i>Palaeontology</i> , 2009, 52, 1057-1097.	1.0	72
9	Megaevolutionary dynamics and the timing of evolutionary innovation in reptiles. <i>Nature Communications</i> , 2020, 11, 3322.	5.8	66
10	Fossils reveal the complex evolutionary history of the mammalian regionalized spine. <i>Science</i> , 2018, 361, 1249-1252.	6.0	60
11	Virtual reconstruction of the endocranial anatomy of the early Jurassic marine crocodylomorph <i>Pelagosaurus typus</i> (Thalattosuchia). <i>PeerJ</i> , 2017, 5, e3225.	0.9	59
12	Evolution of the Sauropterygian Labyrinth with Increasingly Pelagic Lifestyles. <i>Current Biology</i> , 2017, 27, 3852-3858.e3.	1.8	58
13	Historical Perspectives on the Evolution of Tetrapodomorph Movement. <i>Integrative and Comparative Biology</i> , 2013, 53, 209-223.	0.9	57
14	Tail-propelled aquatic locomotion in a theropod dinosaur. <i>Nature</i> , 2020, 581, 67-70.	13.7	57
15	Adaptation and constraint in the evolution of the mammalian backbone. <i>BMC Evolutionary Biology</i> , 2018, 18, 172.	3.2	56
16	Heterochronic shifts and conserved embryonic shape underlie crocodylian craniofacial disparity and convergence. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019, 286, 20182389.	1.2	52
17	Vertebral architecture in the earliest stem tetrapods. <i>Nature</i> , 2013, 494, 226-229.	13.7	51
18	Morphological and functional changes in the vertebral column with increasing aquatic adaptation in crocodylomorphs. <i>Royal Society Open Science</i> , 2015, 2, 150439.	1.1	51

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19	An experimental and morphometric test of the relationship between vertebral morphology and joint stiffness in Nile crocodiles (<i>Crocodylus niloticus</i>). <i>Journal of Experimental Biology</i> , 2014, 217, 758-768.	0.8	47
20	Cryptic complexity in felid vertebral evolution: shape differentiation and allometry of the axial skeleton. <i>Zoological Journal of the Linnean Society</i> , 2016, 178, 183-202.	1.0	42
21	Redescription and phylogenetic position of the Adriatic (Upper Cretaceous; Cenomanian) dolichosaur <i>Pontosaurus lesinensis</i> (Kornhuber, 1873). <i>Journal of Vertebrate Paleontology</i> , 2004, 24, 373-386.	0.4	40
22	Sphenodontian phylogeny and the impact of model choice in Bayesian morphological clock estimates of divergence times and evolutionary rates. <i>BMC Biology</i> , 2020, 18, 191.	1.7	40
23	Regionalization of the axial skeleton predates functional adaptation in the forerunners of mammals. <i>Nature Ecology and Evolution</i> , 2020, 4, 470-478.	3.4	40
24	The scaling of postcranial muscles in cats (Felidae) I: forelimb, cervical, and thoracic muscles. <i>Journal of Anatomy</i> , 2016, 229, 128-141.	0.9	38
25	Pectoral girdle and forelimb musculoskeletal function in the echidna (<i>Tachyglossus aculeatus</i>) <i>Tj ETQq1 1 0,784314 rgBT /Over</i>	1.1	37
26	Experimental determination of three-dimensional cervical joint mobility in the avian neck. <i>Frontiers in Zoology</i> , 2017, 14, 37.	0.9	36
27	Functional performance of turtle humerus shape across an ecological adaptive landscape. <i>Evolution; International Journal of Organic Evolution</i> , 2019, 73, 1265-1277.	1.1	36
28	Reconstructing pectoral appendicular muscle anatomy in fossil fish and tetrapods over the fins-to-limbs transition. <i>Biological Reviews</i> , 2018, 93, 1077-1107.	4.7	34
29	Three-dimensional mobility and muscle attachments in the pectoral limb of the Triassic cynodont <i>Massetognathus pascuali</i> (Romer, 1967). <i>Journal of Anatomy</i> , 2018, 232, 383-406.	0.9	33
30	Functional adaptive landscapes predict terrestrial capacity at the origin of limbs. <i>Nature</i> , 2021, 589, 242-245.	13.7	33
31	Ecological opportunity and the rise and fall of crocodylomorph evolutionary innovation. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2021, 288, 20210069.	1.2	33
32	Adaptive landscapes challenge the œlateral-to-sagittal paradigm for mammalian vertebral evolution. <i>Current Biology</i> , 2021, 31, 1883-1892.e7.	1.8	33
33	Evolution of forelimb musculoskeletal function across the fish-to-tetrapod transition. <i>Science Advances</i> , 2021, 7, .	4.7	32
34	Mechanics of evolutionary digit reduction in fossil horses (Equidae). <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2017, 284, 20171174.	1.2	30
35	Regional differentiation of felid vertebral column evolution: a study of 3D shape trajectories. <i>Organisms Diversity and Evolution</i> , 2017, 17, 305-319.	0.7	28
36	The evolutionary diversity of locomotor innovation in rodents is not linked to proximal limb morphology. <i>Scientific Reports</i> , 2020, 10, 717.	1.6	26

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37	Big cat, small cat: reconstructing body size evolution in living and extinct Felidae. <i>Journal of Evolutionary Biology</i> , 2015, 28, 1516-1525.	0.8	23
38	Stepwise shifts underlie evolutionary trends in morphological complexity of the mammalian vertebral column. <i>Nature Communications</i> , 2019, 10, 5071.	5.8	23
39	Vertebral bending mechanics and xenarthrous morphology in the nine-banded armadillo (<i>Dasyurus</i>). <i>Trends in Ecology & Evolution</i> , 2019, 34, 1071-1078.	0.8	22
40	The scaling of postcranial muscles in cats (Felidae): hindlimb and lumbosacral muscles. <i>Journal of Anatomy</i> , 2016, 229, 142-152.	0.9	22
41	Semicircular canals in <i>Anolis</i> lizards: ecomorphological convergence and ecomorph affinities of fossil species. <i>Royal Society Open Science</i> , 2017, 4, 170058.	1.1	22
42	Broad similarities in shoulder muscle architecture and organization across two amniotes: implications for reconstructing non-mammalian synapsids. <i>PeerJ</i> , 2020, 8, e8556.	0.9	21
43	The effects of skeletal asymmetry on interpreting biologic variation and taphonomy in the fossil record. <i>Paleobiology</i> , 2019, 45, 154-166.	1.3	20
44	Evolution of Hindlimb Muscle Anatomy Across the Tetrapod Water-to-Land Transition, Including Comparisons With Forelimb Anatomy. <i>Anatomical Record</i> , 2020, 303, 218-234.	0.8	20
45	Musculoskeletal modeling of sprawling and parasagittal forelimbs provides insight into synapsid postural transition. <i>iScience</i> , 2022, 25, 103578.	1.9	20
46	Sustained high rates of morphological evolution during the rise of tetrapods. <i>Nature Ecology and Evolution</i> , 2021, 5, 1403-1414.	3.4	19
47	Evolutionary parallelisms of pectoral and pelvic network-anatomy from fins to limbs. <i>Science Advances</i> , 2019, 5, eaau7459.	4.7	18
48	Inner ear morphology of diadectomorphs and seymouriamorphs (Tetrapoda) uncovered by high-resolution x-ray microcomputed tomography, and the origin of the amniote crown group. <i>Palaeontology</i> , 2020, 63, 131-154.	1.0	17
49	The Evolution of a Single Toe in Horses: Causes, Consequences, and the Way Forward. <i>Integrative and Comparative Biology</i> , 2019, 59, 638-655.	0.9	15
50	Patterns of Limb and Epaxial Muscle Activity During Walking in the Fire Salamander, <i>Salamandra salamandra</i> . <i>Integrative Organismal Biology</i> , 2020, 2, obaa015.	0.9	15
51	Feeding structures in the ray-finned fish <i>Eurynotus crenatus</i> (Actinopterygii: Eurynotiformes): implications for trophic diversification among Carboniferous actinopterygians. <i>Earth and Environmental Science Transactions of the Royal Society of Edinburgh</i> , 2018, 109, 33-47.	0.3	14
52	Shoulder Muscle Architecture in the Echidna (Monotremata: <i>Tachyglossus aculeatus</i>) Indicates Conserved Functional Properties. <i>Journal of Mammalian Evolution</i> , 2020, 27, 591-603.	1.0	14
53	Homogenization of sample absorption for the imaging of large and dense fossils with synchrotron microtomography. <i>Nature Protocols</i> , 2013, 8, 1708-1717.	5.5	13
54	Axial allometry in a neutrally buoyant environment: effects of the terrestrial-aquatic transition on vertebral scaling. <i>Journal of Evolutionary Biology</i> , 2016, 29, 594-601.	0.8	13

#	ARTICLE	IF	CITATIONS
55	An exceptionally preserved Sphenodon-like sphenodontian reveals deep time conservation of the tuatara skeleton and ontogeny. <i>Communications Biology</i> , 2022, 5, 195.	2.0	13
56	Validation of an Echidna Forelimb Musculoskeletal Model Using XROMM and diceCT. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 751518.	2.0	12
57	Intercentrum versus pleurocentrum growth in early tetrapods: A paleohistological approach. <i>Journal of Morphology</i> , 2017, 278, 1262-1283.	0.6	11
58	How (and why) fins turn into limbs: insights from anglerfish. <i>Earth and Environmental Science Transactions of the Royal Society of Edinburgh</i> , 2018, 109, 87-103.	0.3	11
59	Cranial and endocranial anatomy of a three-dimensionally preserved teleosauroid thalattosuchian skull. <i>Anatomical Record</i> , 2022, 305, 2620-2653.	0.8	11
60	Whole-limb scaling of muscle mass and force-generating capacity in amniotes. <i>PeerJ</i> , 2021, 9, e12574.	0.9	11
61	Niche modeling reveals lack of broad-scale habitat partitioning in extinct horses of North America. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2018, 511, 103-118.	1.0	10
62	AutoBend: An Automated Approach for Estimating Intervertebral Joint Function from Bone-Only Digital Models. <i>Integrative Organismal Biology</i> , 2021, 3, obab026.	0.9	10
63	Developmental origins of the crocodylian skull table and platyrostral face. <i>Anatomical Record</i> , 2022, 305, 2838-2853.	0.8	9
64	Frontoparietal Bone in Extinct Palaeobatrachidae (Anura): Its Variation and Taxonomic Value. <i>Anatomical Record</i> , 2015, 298, 1848-1863.	0.8	8
65	An Overview of Xenarthran Developmental Studies with a Focus on the Development of the Xenarthrous Vertebrae. <i>Journal of Mammalian Evolution</i> , 2018, 25, 507-523.	1.0	8
66	Spatiotemporal Distributions of Non-ophidian Ophidiomorphs, With Implications for Their Origin, Radiation, and Extinction. <i>Frontiers in Earth Science</i> , 2019, 7, .	0.8	6
67	A New Look at Carboniferous Rhizodontid Humeri (Sarcopterygii; Tetrapodomorpha) Citation for this article: Johanson, Z., J. Jeffery, T. Challands, S. E. Pierce, and J. A. Clack. 2020. A new look at Carboniferous rhizodontid humeri (Sarcopterygii; Tetrapodomorpha). <i>Journal of Vertebrate Paleontology</i> , DOI: 10.1080/02724634.2020.1813150. <i>Journal of Vertebrate Paleontology</i> , 2020, 40, .	0.4	2
68	Osteohistology of <i>Greererpeton</i> provides insight into the life history of an early Carboniferous tetrapod. <i>Journal of Anatomy</i> , 2021, 239, 1256-1272.	0.9	2
69	Size and shape regional differentiation during the development of the spine in the nine-banded armadillo (<i>Dasyus novemcinctus</i>). <i>Evolution & Development</i> , 2021, 23, 496-512.	1.1	2
70	Comparison of Hindlimb Muscle Architecture Properties in Small-Bodied, Generalist Mammals Suggests Similarity in Soft Tissue Anatomy. <i>Journal of Mammalian Evolution</i> , 2022, 29, 477-491.	1.0	1
71	Iterative Habitat Transitions are Associated with Morphological Convergence of the Backbone in Delphinoids. <i>Journal of Mammalian Evolution</i> , 0, .	1.0	1
72	A Protocol for Prolonged Surgical Anaesthesia with Recovery in Fire Salamanders Using Tricaine Mesylate (MS-222): A Case Series. <i>Laboratory Animals</i> , 2022, 56, 540-549.	0.5	1

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73	Evolutionary Origins of Mammalian Axial Function Revealed through Digital Bending Experiments. FASEB Journal, 2022, 36, .	0.2	0