

Brian Douglas Metscher

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

65
papers

2,299
citations

24
h-index

47
g-index

75
ext. papers

2,784
ext. citations

3.6
avg, IF

5.76
L-index

#	Paper	IF	Citations
65	MicroCT for comparative morphology: simple staining methods allow high-contrast 3D imaging of diverse non-mineralized animal tissues. <i>BMC Physiology</i> , 2009 , 9, 11	0	642
64	MicroCT for developmental biology: a versatile tool for high-contrast 3D imaging at histological resolutions. <i>Developmental Dynamics</i> , 2009 , 238, 632-40	2.9	416
63	Zebrafish in context: uses of a laboratory model in comparative studies. <i>Developmental Biology</i> , 1999 , 210, 1-14	3.1	87
62	Open data and digital morphology. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2017 , 284,	4.4	73
61	An ancient dental gene set governs development and continuous regeneration of teeth in sharks. <i>Developmental Biology</i> , 2016 , 415, 347-370	3.1	60
60	Expression of Hoxa-11 and Hoxa-13 in the pectoral fin of a basal ray-finned fish, <i>Polyodon spathula</i> : implications for the origin of tetrapod limbs. <i>Evolution & Development</i> , 2005 , 7, 186-95	2.6	54
59	Relationship between swim bladder morphology and hearing abilities--a case study on Asian and African cichlids. <i>PLoS ONE</i> , 2012 , 7, e42292	3.7	53
58	A New Dimension in Documenting New Species: High-Detail Imaging for Myriapod Taxonomy and First 3D Cyberotype of a New Millipede Species (Diplopoda, Julida, Julidae). <i>PLoS ONE</i> , 2015 , 10, e0135243	3.7	47
57	Dental cell type atlas reveals stem and differentiated cell types in mouse and human teeth. <i>Nature Communications</i> , 2020 , 11, 4816	17.4	42
56	Structure and sensory physiology of the leg scolopidial organs in Mantophasmatodea and their role in vibrational communication. <i>Arthropod Structure and Development</i> , 2010 , 39, 230-41	1.8	40
55	Sox2+ progenitors in sharks link taste development with the evolution of regenerative teeth from denticles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 14769-14774	11.5	40
54	MicroCT for molecular imaging: quantitative visualization of complete three-dimensional distributions of gene products in embryonic limbs. <i>Developmental Dynamics</i> , 2011 , 240, 2301-8	2.9	39
53	The function and phylogenetic implications of the tentorium in adult Neuroptera (Insecta). <i>Arthropod Structure and Development</i> , 2011 , 40, 571-82	1.8	37
52	Development and evolution of dentition pattern and tooth order in the skates and rays (batoidea; chondrichthyes). <i>PLoS ONE</i> , 2015 , 10, e0122553	3.7	37
51	X-ray microtomographic imaging of intact vertebrate embryos. <i>Cold Spring Harbor Protocols</i> , 2011 , 2011, 1462-71	1.2	35
50	One proboscis, two tasks: adaptations to blood-feeding and nectar-extracting in long-proboscid horse flies (Tabanidae, Philoliche). <i>Arthropod Structure and Development</i> , 2014 , 43, 403-13	1.8	34
49	Functional morphology of the feeding apparatus and evolution of proboscis length in metalmark butterflies (Lepidoptera: Riodinidae). <i>Biological Journal of the Linnean Society</i> , 2013 , 110, 291-304	1.9	34

48	A unique swim bladder-inner ear connection in a teleost fish revealed by a combined high-resolution microtomographic and three-dimensional histological study. <i>BMC Biology</i> , 2013 , 11, 75	7.3	30
47	Testing hypotheses of bat baculum function with 3D models derived from microCT. <i>Journal of Anatomy</i> , 2015 , 226, 229-35	2.9	29
46	Past climate change on Sky Islands drives novelty in a core developmental gene network and its phenotype. <i>BMC Evolutionary Biology</i> , 2015 , 15, 183	3	27
45	Showing their true colors: a practical approach to volume rendering from serial sections. <i>BMC Developmental Biology</i> , 2010 , 10, 41	3.1	27
44	Homeobox genes in axolotl lateral line placodes and neuromasts. <i>Development Genes and Evolution</i> , 1997 , 207, 287-295	1.8	27
43	Micro-CT in cephalopod research: Investigating the internal anatomy of a sepiolid squid using a non-destructive technique with special focus on the ganglionic system. <i>Journal of Experimental Marine Biology and Ecology</i> , 2013 , 447, 140-148	2.1	26
42	Sensory epithelia of the fish inner ear in 3D: studied with high-resolution contrast enhanced microCT. <i>Frontiers in Zoology</i> , 2013 , 10, 63	2.8	24
41	Microscopic dual-energy CT (microDECT): a flexible tool for multichannel ex vivo 3D imaging of biological specimens. <i>Journal of Microscopy</i> , 2017 , 267, 3-26	1.9	22
40	Dispersal of thermophilic beetles across the intercontinental Arctic forest belt during the early Eocene. <i>Scientific Reports</i> , 2017 , 7, 12972	4.9	22
39	Time management and nectar flow: flower handling and suction feeding in long-proboscid flies (Nemestrinidae: Prosoeca). <i>Die Naturwissenschaften</i> , 2013 , 100, 1083-93	2	20
38	Correlative 3D-imaging of Pipistrellus penis micromorphology: Validating quantitative microCT images with undecalcified serial ground section histomorphology. <i>Journal of Morphology</i> , 2015 , 276, 695-706	1.6	19
37	Are accessory hearing structures linked to inner ear morphology? Insights from 3D orientation patterns of ciliary bundles in three cichlid species. <i>Frontiers in Zoology</i> , 2014 , 11, 25	2.8	19
36	Histomorphology of the penis bone (Baculum) in the gray long-eared bat <i>Plecotus austriacus</i> (Chiroptera, Vespertilionidae). <i>Anatomical Record</i> , 2010 , 293, 1248-58	2.1	19
35	Pre-oral gut contributes to facial structures in non-teleost fishes. <i>Nature</i> , 2017 , 547, 209-212	50.4	17
34	Studying developmental variation with Geometric Morphometric Image Analysis (GMIA). <i>PLoS ONE</i> , 2014 , 9, e115076	3.7	17
33	Clidicostigus gen. nov., the first Mesozoic genus of Mastigini (Coleoptera: Staphylinidae: Scydmaeninae) from Cenomanian Burmese amber. <i>Cretaceous Research</i> , 2017 , 72, 110-116	1.8	16
32	Evolutionary trajectories of tooth histology patterns in modern sharks (Chondrichthyes, Elasmobranchii). <i>Journal of Anatomy</i> , 2020 , 236, 753-771	2.9	15
31	The Developmental Pattern of the Musculature Associated with the Mandibular and Hyoid Arches in the Longnose Gar, <i>Lepisosteus osseus</i> (Actinopterygii, Ginglymodi, Lepisosteiformes). <i>Copeia</i> , 2015 , 103, 920-932	1.1	13

30	MicroCT Imaging Reveals Morphometric Baculum Differences for Discriminating the Cryptic Species <i>Pipistrellus pipistrellus</i> and <i>P. pygmaeus</i> . <i>Acta Chiropterologica</i> , 2014 , 16, 157-168	1	12
29	Photon detection with cooled avalanche photodiodes. <i>Applied Physics Letters</i> , 1987 , 51, 1493-1494	3.4	12
28	Volume analysis of heat-induced cracks in human molars: A preliminary study. <i>Journal of Forensic Dental Sciences</i> , 2014 , 6, 139-44	0.8	12
27	Secondary ossification center induces and protects growth plate structure. <i>ELife</i> , 2020 , 9,	8.9	11
26	Shifts of sensory modalities in early life history stage estuarine fishes (Sciaenidae) from the Chesapeake Bay using X-ray micro computed tomography. <i>Environmental Biology of Fishes</i> , 2016 , 99, 361-375	1.6	11
25	Heterochrony and early left-right asymmetry in the development of the cardiorespiratory system of snakes. <i>PLoS ONE</i> , 2015 , 10, e116416	3.7	9
24	Micro-computed tomography for natural history specimens: a handbook of best practice protocols. <i>European Journal of Taxonomy</i> , 2019 ,	1.7	9
23	Bichir external gills arise via heterochronic shift that accelerates hyoid arch development. <i>ELife</i> , 2019 , 8,	8.9	9
22	The lateral mesodermal divide: an epigenetic model of the origin of paired fins. <i>Evolution & Development</i> , 2014 , 16, 38-48	2.6	7
21	Thumbs down: a molecular-morphogenetic approach to avian digit homology. <i>Journal of Experimental Zoology Part B: Molecular and Developmental Evolution</i> , 2014 , 322, 1-12	1.8	7
20	New avatars for Myriapods: Complete 3D morphology of type specimens transcends conventional species description (Myriapoda, Chilopoda). <i>PLoS ONE</i> , 2018 , 13, e0200158	3.7	7
19	Unusual pharyngeal dentition in the African Chedrin fishes (Teleostei: Cyprinidae): Significance for phylogeny and character evolution. <i>Zoologischer Anzeiger</i> , 2015 , 255, 85-102	1.1	5
18	Internal head morphology of minor workers and soldiers in the hyperdiverse ant genus <i>Pheidole</i> . <i>Canadian Journal of Zoology</i> , 2018 , 96, 383-392	1.5	5
17	Hard and soft X-ray imaging to resolve human ovarian cortical structures. <i>Journal of Synchrotron Radiation</i> , 2019 , 26, 1322-1329	2.4	4
16	Delivery of Iron Oxide Nanoparticles into Primordial Germ Cells in Sturgeon. <i>Biomolecules</i> , 2019 , 9,	5.9	3
15	First record of an upper deciduous molar in <i>Desmanella</i> (Uropsilinae, Talpidae, Mammalia). <i>Geobios</i> , 2013 , 46, 503-510	1.5	2
14	Three-dimensional acousto-optic spectrum analysis. <i>Optics Letters</i> , 1990 , 15, 1245-6	3	2
13	Secondary ossification center induces and protects growth plate structure		2

12	A simple nuclear contrast staining method for microCT-based 3D histology using lead(II) acetate. <i>Journal of Anatomy</i> , 2021 , 238, 1036-1041	2.9	2
11	Embryology of the naso-palatal complex in Gekkota based on detailed 3D analysis in <i>Lepidodactylus lugubris</i> and <i>Eublepharis macularius</i> . <i>Journal of Anatomy</i> , 2021 , 238, 249-287	2.9	2
10	Laboratory-based X-ray NanoCT Explores Morphology of a Zebrafish Embryo. <i>Microscopy and Microanalysis</i> , 2018 , 24, 184-185	0.5	2
9	Postcards from The Wedge: review and commentary on Explore Evolution: The Arguments For and Against Neo-Darwinism by Steven C. Meyer et al.. <i>Evolution & Development</i> , 2009 , 11, 124-125	2.6	1
8	X-ray micro-computed tomography of postmortem brain tissue using potassium dichromate as a contrast agent. <i>Archives Italiennes De Biologie</i> , 2018 , 156, 48-53	1.1	1
7	A Simple Nuclear Contrast Staining Method for MicroCT-Based 3D Histology Using Lead(II) Acetate		1
6	Development of the squamate naso-palatal complex: detailed 3D analysis of the vomeronasal organ and nasal cavity in the brown anole (Squamata: Iguania). <i>Frontiers in Zoology</i> , 2020 , 17, 28	2.8	1
5	Do all geckos hatch in the same way? Histological and 3D studies of egg tooth morphogenesis in the geckos <i>Eublepharis macularius</i> Blyth 1854 and <i>Lepidodactylus lugubris</i> Duméril & Bibron 1836. <i>Journal of Morphology</i> , 2020 , 281, 1313-1327	1.6	1
4	Experimental considerations for 2-D acoustooptic spectrum analysis. <i>Applied Optics</i> , 1990 , 29, 5317-9	1.7	0
3	<i>Wallaceochromis</i> gen. nov, a new chromidotilapiine cichlid genus (Pisces: Perciformes) from West Africa. <i>Zootaxa</i> , 2016 , 4144, 124-30	0.5	
2	Quantitative Immunostaining: 3D X-ray Microscopy for Visualizing and Measuring Protein Distribution in Three Dimensions. <i>FASEB Journal</i> , 2013 , 27, 532.6	0.9	
1	Ultrastructural studies of developing egg tooth in grass snake <i>Natrix natrix</i> (Squamata, Serpentes) embryos, supported by X-ray microtomography analysis. <i>Zoology</i> , 2021 , 146, 125913	1.7	