

Adam P Summers

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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.

128 papers	3,188 citations	33 h-index	49 g-index
187 ext. papers	3,861 ext. citations	6.3 avg, IF	5.51 L-index

#	Paper	IF	Citations
128	Stiffening the stingray skeleton - an investigation of durophagy in myliobatid stingrays (Chondrichthyes, batoidea, myliobatidae). <i>Journal of Morphology</i> , 2000 , 243, 113-26	1.6	121
127	Mineralized cartilage in the skeleton of chondrichthyan fishes. <i>Zoology</i> , 2006 , 109, 164-8	1.7	117
126	Linkage mechanics and power amplification of the mantis shrimp's strike. <i>Journal of Experimental Biology</i> , 2007 , 210, 3677-88	3	99
125	Batoid wing skeletal structure: novel morphologies, mechanical implications, and phylogenetic patterns. <i>Journal of Morphology</i> , 2005 , 264, 298-313	1.6	93
124	Three-dimensional computer analysis of white shark jaw mechanics: how hard can a great white bite?. <i>Journal of Zoology</i> , 2008 , 276, 336-342	2	91
123	Stick tight: suction adhesion on irregular surfaces in the northern clingfish. <i>Biology Letters</i> , 2013 , 9, 20130034	0.34	89
122	Open data and digital morphology. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2017 , 284,	4.4	73
121	SPIDER DRAGLINE SILK: CORRELATED AND MOSAIC EVOLUTION IN HIGH-PERFORMANCE BIOLOGICAL MATERIALS. <i>Evolution; International Journal of Organic Evolution</i> , 2006 , 60, 2539-2551	3.8	71
120	Gumfooted lines in black widow cobwebs and the mechanical properties of spider capture silk. <i>Zoology</i> , 2005 , 108, 41-6	1.7	70
119	Structure and function of the horn shark (<i>Heterodontus francisci</i>) cranium through ontogeny: development of a hard prey specialist. <i>Journal of Morphology</i> , 2004 , 260, 1-12	1.6	67
118	Kinematic Analysis of Suction Feeding in the Nurse Shark, <i>Ginglymostoma cirratum</i> (Orectolobiformes, Ginglymostomatidae). <i>Copeia</i> , 2002 , 2002, 24-38	1.1	65
117	Ontogeny of the tessellated skeleton: insight from the skeletal growth of the round stingray <i>Urobatis halleri</i> . <i>Journal of Anatomy</i> , 2009 , 215, 227-39	2.9	58
116	Material properties and biochemical composition of mineralized vertebral cartilage in seven elasmobranch species (Chondrichthyes). <i>Journal of Experimental Biology</i> , 2006 , 209, 2920-8	3	58
115	Attachment to challenging substrates--fouling, roughness and limits of adhesion in the northern clingfish (<i>Gobiesox maeandricus</i>). <i>Journal of Experimental Biology</i> , 2014 , 217, 2548-54	3	57
114	The filter pads and filtration mechanisms of the devil rays: Variation at macro and microscopic scales. <i>Journal of Morphology</i> , 2013 , 274, 1026-43	1.6	57
113	The evolution of cranial design, diet, and feeding mechanisms in batoid fishes. <i>Integrative and Comparative Biology</i> , 2007 , 47, 70-81	2.8	56
112	Kinematics of aquatic and terrestrial prey capture in <i>Terrapene carolina</i> , with implications for the evolution of feeding in cryptodire turtles. <i>The Journal of Experimental Zoology</i> , 1998 , 281, 280-7		55

111	Maneuvering in juvenile carcharhinid and sphyrnid sharks: the role of the hammerhead shark cephalofoil. <i>Zoology</i> , 2003 , 106, 19-28	1.7	55
110	The material properties of acellular bone in a teleost fish. <i>Journal of Experimental Biology</i> , 2009 , 212, 1413-20	3	52
109	The evolution of tendon--morphology and material properties. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2002 , 133, 1159-70	2.6	52
108	Biomaterials: silk-like secretion from tarantula feet. <i>Nature</i> , 2006 , 443, 407	50.4	50
107	How to best smash a snail: the effect of tooth shape on crushing load. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20131053	4.1	43
106	Hard prey, soft jaws and the ontogeny of feeding mechanics in the spotted ratfish <i>Hydrolagus coliei</i> . <i>Journal of the Royal Society Interface</i> , 2008 , 5, 941-52	4.1	42
105	Response of the hammerhead shark olfactory epithelium to amino acid stimuli. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2009 , 195, 947-54	2.3	40
104	Extreme biomimetics: Preservation of molecular detail in centimeter-scale samples of biological meshes laid down by sponges. <i>Science Advances</i> , 2019 , 5, eaax2805	14.3	38
103	Aquatic versus terrestrial attachment: Water makes a difference. <i>Beilstein Journal of Nanotechnology</i> , 2014 , 5, 2424-39	3	38
102	Eating without hands or tongue: specialization, elaboration and the evolution of prey processing mechanisms in cartilaginous fishes. <i>Biology Letters</i> , 2005 , 1, 357-61	3.6	38
101	Olfactory morphology of carcharhinid and sphyrnid sharks: does the cephalofoil confer a sensory advantage?. <i>Journal of Morphology</i> , 2005 , 264, 253-63	1.6	38
100	2D or Not 2D? Testing the Utility of 2D Vs. 3D Landmark Data in Geometric Morphometrics of the Sculpin Subfamily Oligocottinae (Pisces; Cottoidea). <i>Anatomical Record</i> , 2018 , 301, 806-818	2.1	37
99	Functional morphology of the feeding apparatus, feeding constraints, and suction performance in the nurse shark <i>Ginglymostoma cirratum</i> . <i>Journal of Morphology</i> , 2008 , 269, 1041-55	1.6	37
98	Calcite Reinforced Silica-Silica Joints in the Biocomposite Skeleton of Deep-Sea Glass Sponges. <i>Advanced Functional Materials</i> , 2011 , 21, 3473-3481	15.6	34
97	Comparison of the structure and composition of the branchial filters in suspension feeding elasmobranchs. <i>Anatomical Record</i> , 2014 , 297, 701-15	2.1	33
96	A comparative study of locomotion in the caecilians <i>Dermophis mexicanus</i> and <i>Typhlonectes natans</i> (Amphibia: Gymnophiona). <i>Zoological Journal of the Linnean Society</i> , 1997 , 121, 65-76	2.4	33
95	Stingray jaws strut their stuff. <i>Nature</i> , 1998 , 395, 450-451	50.4	32
94	Bottles as models: predicting the effects of varying swimming speed and morphology on size selectivity and filtering efficiency in fishes. <i>Journal of Experimental Biology</i> , 2011 , 214, 1643-54	3	31

93	Assessing Science Training Programs: Structured Undergraduate Research Programs Make a Difference. <i>BioScience</i> , 2018 , 68, 529-534	5.7	31
92	Comparison of chela size and pincer force in scorpions; getting a first grip. <i>Journal of Zoology</i> , 2010 , 280, 319-325	2	29
91	Morphology does not predict performance: jaw curvature and prey crushing in durophagous stingrays. <i>Journal of Experimental Biology</i> , 2015 , 218, 3941-9	3	28
90	Morphology and kinematics of feeding in hagfish: possible functional advantages of jaws. <i>Journal of Experimental Biology</i> , 2007 , 210, 3897-909	3	28
89	Flexural stiffness and composition of the batoid propterygium as predictors of punting ability. <i>Journal of Experimental Biology</i> , 2012 , 215, 2003-12	3	27
88	Composite model of the shark's skeleton in bending: A novel architecture for biomimetic design of functional compression bias. <i>Materials Science and Engineering C</i> , 2010 , 30, 1077-1084	8.3	27
87	Metabolic rate of embryonic little skate, <i>Raja erinacea</i> (Chondrichthyes: Batoidea): The cost of active pumping. <i>The Journal of Experimental Zoology</i> , 1999 , 283, 13-18		27
86	The contribution of mineral to the material properties of vertebral cartilage from the smooth-hound shark <i>Mustelus californicus</i> . <i>Journal of Experimental Biology</i> , 2007 , 210, 3319-27	3	26
85	Modelling tooth-prey interactions in sharks: the importance of dynamic testing. <i>Royal Society Open Science</i> , 2016 , 3, 160141	3.3	25
84	Whole-body lift and ground effect during pectoral fin locomotion in the northern spearnose poacher (<i>Agonopsis vulsa</i>). <i>Zoology</i> , 2009 , 112, 393-402	1.7	24
83	The Evolution of the Functional Role of Trunk Muscles During Locomotion in Adult Amphibians. <i>American Zoologist</i> , 2000 , 40, 123-135		24
82	Learning from Northern clingfish (<i>Gobiesox maeandricus</i>): bioinspired suction cups attach to rough surfaces. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019 , 374, 20190204	5.8	23
81	Always chew your food: freshwater stingrays use mastication to process tough insect prey. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2016 , 283,	4.4	23
80	Specialized specialists and the narrow niche fallacy: a tale of scale-feeding fishes. <i>Royal Society Open Science</i> , 2018 , 5, 171581	3.3	22
79	Canaliculi in the tessellated skeleton of cartilaginous fishes. <i>Journal of Applied Ichthyology</i> , 2010 , 26, 263-267	0.9	22
78	The comparative hydrodynamics of rapid rotation by predatory appendages. <i>Journal of Experimental Biology</i> , 2016 , 219, 3399-3411	3	21
77	Locomotory transition from water to sand and its effects on undulatory kinematics in sand lances (<i>Ammodytidae</i>). <i>Journal of Experimental Biology</i> , 2011 , 214, 657-64	3	21
76	Caecilian jaw-closing mechanics: integrating two muscle systems. <i>Journal of the Royal Society Interface</i> , 2008 , 5, 1491-504	4.1	21

75	Skin and Bones, Sinew and Gristle: the Mechanical Behavior of Fish Skeletal Tissues. <i>Fish Physiology</i> , 2005 , 141-177	2	21
74	Gait transition speed, pectoral fin-beat frequency and amplitude in <i>Cymatogaster aggregata</i> , <i>Embiotoca lateralis</i> and <i>Damalichthys vacca</i> . <i>Journal of Fish Biology</i> , 2002 , 61, 1282-1293	1.9	21
73	Burrowing behavior, habitat, and functional morphology of the Pacific sand lance (<i>Ammodytes personatus</i>). <i>Fishery Bulletin</i> , 2016 , 114, 445-460	1.4	20
72	Stress relaxation behavior of tessellated cartilage from the jaws of blue sharks. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014 , 29, 68-80	4.1	19
71	Is solid always best? Cranial performance in solid and fenestrated caecilian skulls. <i>Journal of Experimental Biology</i> , 2012 , 215, 833-44	3	19
70	Uniform strain in broad muscles: active and passive effects of the twisted tendon of the spotted ratfish <i>Hydrolagus coliei</i> . <i>Journal of Experimental Biology</i> , 2007 , 210, 3395-406	3	18
69	A novel fibrocartilaginous tendon from an elasmobranch fish (<i>Rhinoptera bonasus</i>). <i>Cell and Tissue Research</i> , 2003 , 312, 221-7	4.2	17
68	Built for speed: strain in the cartilaginous vertebral columns of sharks. <i>Zoology</i> , 2014 , 117, 19-27	1.7	16
67	Inspired by Sharks: A Biomimetic Skeleton for the Flapping, Propulsive Tail of an Aquatic Robot. <i>Marine Technology Society Journal</i> , 2011 , 45, 119-129	0.5	16
66	The retro-articular process, streptostyly and the caecilian jaw closing system. <i>Zoology</i> , 2005 , 108, 307-15	1.7	16
65	Spatial segregation in eastern North Pacific skate assemblages. <i>PLoS ONE</i> , 2014 , 9, e109907	3.7	16
64	Ventilatory modes and mechanics of the hedgehog skate (<i>Leucoraja erinacea</i>): testing the continuous flow model. <i>Journal of Experimental Biology</i> , 2001 , 204, 1577-87	3	15
63	Ontogenetic scaling of the morphology and biomechanics of the feeding apparatus in the Pacific hagfish <i>Eptatretus stoutii</i> . <i>Journal of Fish Biology</i> , 2012 , 80, 86-99	1.9	14
62	A cryoSEM Method for Preservation and Visualization of Calcified Shark Cartilage (And Other Stubborn Heterogeneous Skeletal Tissues). <i>Microscopy Today</i> , 2008 , 16, 48-51	0.4	14
61	The sexually dimorphic cephalofoil of bonnethead sharks, <i>Sphyrna tiburo</i> . <i>Biological Bulletin</i> , 2005 , 209, 1-5	1.5	14
60	INTEGRATION OF VERSATILE FUNCTIONAL DESIGN, POPULATION ECOLOGY, ONTOGENY AND PHYLOGENY. <i>Animal Biology</i> , 2000 , 50, 245-259		14
59	TopoAngler: Interactive Topology-Based Extraction of Fishes. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2018 , 24, 812-821	4	13
58	Biomaterials: Properties, variation and evolution. <i>Integrative and Comparative Biology</i> , 2009 , 49, 15-20	2.8	13

57	Spadefoot Toads (<i>Scaphiopus holbrookii holbrookii</i>) in an Urban Landscape: Effects of Nonnatural Substrates on Burrowing in Adults and Juveniles. <i>Journal of Herpetology</i> , 2001 , 35, 141	1.1	13
56	Tooth and consequences: Heterodonty and dental replacement in piranhas and pacus (Serrasalminae). <i>Evolution & Development</i> , 2019 , 21, 278-293	2.6	12
55	The Natural Historian's Guide to the CT Galaxy: Step-by-Step Instructions for Preparing and Analyzing Computed Tomographic (CT) Data Using Cross-Platform, Open Access Software. <i>Integrative Organismal Biology</i> , 2020 , 2, obaa009	2.3	12
54	Mechanical properties of the hyomandibula in four shark species. <i>Journal of Experimental Zoology</i> , 2015 , 323, 1-9		12
53	The Evolution of the Functional Role of Trunk Muscles During Locomotion in Adult Amphibians1. <i>American Zoologist</i> , 2000 , 40, 123-135		12
52	Performance of teeth of lingcod, <i>Ophiodon elongatus</i> , over ontogeny. <i>Journal of Experimental Zoology</i> , 2016 , 325, 99-105		12
51	Pairwise modulation of jaw muscle activity in two species of elasmobranchs. <i>Journal of Zoology</i> , 2010 , 281, no-no	2	11
50	Bio-inspired geotechnical engineering: principles, current work, opportunities and challenges. <i>Geotechnique</i> , 1-19	3.4	11
49	A New Genus and Species of Clingfish (Teleostei: Gobiesocidae) from Western Australia. <i>Copeia</i> , 2017 , 105, 128-140	1.1	10
48	From smooth to rough, from water to air: the intertidal habitat of Northern clingfish (<i>Gobiesox maeandricus</i>). <i>Die Naturwissenschaften</i> , 2017 , 104, 33	2	10
47	Killing them softly: Ontogeny of jaw mechanics and stiffness in mollusk-feeding freshwater stingrays. <i>Journal of Morphology</i> , 2019 , 280, 796-808	1.6	10
46	A soft origin for a forceful bite: motor patterns of the feeding musculature in Atlantic hagfish, <i>Myxine glutinosa</i> . <i>Zoology</i> , 2010 , 113, 259-68	1.7	10
45	The evolution of underwater flight: The redistribution of pectoral fin rays, in manta rays and their relatives (Myliobatidae). <i>Journal of Morphology</i> , 2018 , 279, 1155-1170	1.6	9
44	Distribution, composition and functions of gelatinous tissues in deep-sea fishes. <i>Royal Society Open Science</i> , 2017 , 4, 171063	3.3	9
43	Morphology and Ultrastructure of Prismatic Calcified Cartilage. <i>Microscopy and Microanalysis</i> , 2005 , 11,	0.5	9
42	Body shape separates guilds of rheophilic herbivores (Myleinae: Serrasalminae) better than feeding morphology. <i>Proceedings of the Academy of Natural Sciences of Philadelphia</i> , 2019 , 166, 1	1.1	9
41	Mechanical properties of harbor seal skin and blubber - a test of anisotropy. <i>Zoology</i> , 2018 , 126, 137-144	1.7	8
40	Benthic walking, bounding, and maneuvering in flatfishes (Pleuronectiformes: Pleuronectidae): New vertebrate gaits. <i>Zoology</i> , 2018 , 130, 19-29	1.7	8

39	A force-speed trade-off is not absolute. <i>Biology Letters</i> , 2011 , 7, 880-881	3.6	8
38	SPIDER DRAGLINE SILK: CORRELATED AND MOSAIC EVOLUTION IN HIGH-PERFORMANCE BIOLOGICAL MATERIALS. <i>Evolution; International Journal of Organic Evolution</i> , 2006 , 60, 2539	3.8	8
37	Molecular Phylogenetics of the Clingfishes (Teleostei: Gobiesocidae) Implications for Classification. <i>Copeia</i> , 2020 , 108,	1.1	8
36	Not your father's homodonty-stress, tooth shape, and the functional homodont. <i>Journal of Anatomy</i> , 2020 , 237, 837-848	2.9	8
35	Undulation frequency affects burial performance in living and model flatfishes. <i>Zoology</i> , 2016 , 119, 75-80.	0.7	8
34	Tooth occlusal morphology in the durophagous marine reptiles, Placodontia (Reptilia: Sauropterygia). <i>Paleobiology</i> , 2017 , 43, 114-128	2.6	7
33	Heterochrony in fringeheads (Neoclinus) and amplification of an extraordinary aggressive display in the Sarcastic Fringehead (Teleostei: Blenniiformes). <i>Journal of Morphology</i> , 2018 , 279, 626-635	1.6	7
32	Applying x-ray tomography in the field of vertebrate biology: form, function, and evolution of the skull of caecilians (Lissamphibia: Gymnophiona) 2008 ,		7
31	Confirmation of the Passive Exhalation Hypothesis for a Terrestrial Caecilian, <i>Dermophis mexicanus</i> . <i>Copeia</i> , 1999 , 1999, 206	1.1	7
30	Structure and Function of the Armored Keel in Piranhas, Pacus, and their Allies. <i>Anatomical Record</i> , 2020 , 303, 30-43	2.1	7
29	Have Niche, Will Travel. New Means of Linking Diet and Ecomorphology Reveals Niche Conservatism in Freshwater Cottoid Fishes. <i>Integrative Organismal Biology</i> , 2019 , 1, obz023	2.3	6
28	Long-axis twisting during locomotion of elongate fishes. <i>Journal of Experimental Biology</i> , 2017 , 220, 3633-3640	3.6	6
27	Biomechanics: Boxed up and ready to go. <i>Nature</i> , 2015 , 517, 274-5	50.4	6
26	A new genus and species of clingfish from the Rangitīua Kermadec Islands of New Zealand (Teleostei, Gobiesocidae). <i>ZooKeys</i> , 2018 , 75-104	1.2	6
25	A new species of sea urchin associating clingfish of the genus from New Zealand (Teleostei, Gobiesocidae). <i>ZooKeys</i> , 2018 , 77-95	1.2	6
24	Flaccid skin protects hagfishes from shark bites. <i>Journal of the Royal Society Interface</i> , 2017 , 14,	4.1	5
23	Very low pressures drive ventilatory flow in chimaeroid fishes. <i>Journal of Morphology</i> , 2012 , 273, 461-79	1.6	5
22	Gorb et al. reply. <i>Nature</i> , 2009 , 461, E9-E10	50.4	5

21	A new genus and two new species of miniature clingfishes from temperate southern Australia (Teleostei, Gobiesocidae). <i>ZooKeys</i> , 2019 , 864, 35-65	1.2	5
20	The Evolutionary Continuum of Functional Homodonty to Heterodonty in the Dentition of Halichoeres Wrasses. <i>Integrative and Comparative Biology</i> , 2020 ,	2.8	5
19	Functional coupling in the evolution of suction feeding and gill ventilation of sculpins (Perciformes: Cottoidei). <i>Integrative and Comparative Biology</i> , 2019 , 59, 394-409	2.8	4
18	Linkage mechanics and power amplification of the mantis shrimp's strike. <i>Journal of Experimental Biology</i> , 2010 , 213, 3941-3941	3	3
17	Arrested in Glass: Actin within Sophisticated Architectures of Biosilica in Sponges.. <i>Advanced Science</i> , 2022 , e2105059	13.6	3
16	Grand Challenges in Comparative Tooth Biology. <i>Integrative and Comparative Biology</i> , 2020 , 60, 563-580	2.8	2
15	Ontogeny and potential function of poacher armor (Actinopterygii: Agonidae). <i>Journal of Morphology</i> , 2020 , 281, 1018-1028	1.6	2
14	Swimming and defence: competing needs across ontogeny in armoured fishes (Agonidae). <i>Journal of the Royal Society Interface</i> , 2020 , 17, 20200301	4.1	2
13	Foretelling the Flex-Vertebral Shape Predicts Behavior and Ecology of Fishes. <i>Integrative and Comparative Biology</i> , 2021 , 61, 414-426	2.8	2
12	Shark spiral intestines may operate as Tesla valves. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2021 , 288, 20211359	4.4	2
11	SlicerMorph: An open and extensible platform to retrieve, visualize and analyse 3D morphology. <i>Methods in Ecology and Evolution</i> , 2021 , 12, 1816	7.7	2
10	Effects of organism and substrate size on burial mechanics of English sole,. <i>Journal of Experimental Biology</i> , 2018 , 221,	3	1
9	Frontiers in aquatic physiology - grand challenge. <i>Frontiers in Physiology</i> , 2010 , 1, 6	4.6	1
8	Unwind: Interactive Fish Straightening 2020 ,		1
7	The moment of tooth: rate, fate and pattern of Pacific lingcod dentition revealed by pulse-chase. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2021 , 288, 20211436	4.4	1
6	Habitat influences skeletal morphology and density in the snailfishes (family Liparidae). <i>Frontiers in Zoology</i> , 2021 , 18, 16	2.8	1
5	SegmentGeometry: A Tool for Measuring Second Moment of Area in 3D Slicer.. <i>Integrative Organismal Biology</i> , 2022 , 4, obac009	2.3	1
4	Invertebrate biomechanics. <i>Current Biology</i> , 2017 , 27, R371-R375	6.3	0

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| 3 | Scale performance and composition in a small Amazonian armored catfish, <i>Corydoras trilineatus</i> . <i>Acta Biomaterialia</i> , 2021 , 121, 359-370 | 10.8 | 0 |
| 2 | Clarification Regarding the Holotype of <i>Caecilia volcani</i> (Amphibia: Gymnophiona). <i>Copeia</i> , 2001 , 2001, 561-562 | 1.1 | |
| 1 | Biomaterials: Sharks shift their spine into high gear. <i>Nature</i> , 2016 , 540, 532-533 | 50.4 | |