

# Mark W Westneat

## List of Publications by Year in descending order

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88  
papers

5,298  
citations

71102

41  
h-index

88630

70  
g-index

101  
all docs

101  
docs citations

101  
times ranked

3654  
citing authors

#	ARTICLE	IF	CITATIONS
1	Phylogenetic relationships and evolutionary history of the reef fish family Labridae. <i>Molecular Phylogenetics and Evolution</i> , 2005, 36, 370-390.	2.7	256
2	A functional morphospace for the skull of labrid fishes: patterns of diversity in a complex biomechanical system. <i>Biological Journal of the Linnean Society</i> , 2004, 82, 1-25.	1.6	224
3	Evolution of Levers and Linkages in the Feeding Mechanisms of Fishes. <i>Integrative and Comparative Biology</i> , 2004, 44, 378-389.	2.0	213
4	Tracheal Respiration in Insects Visualized with Synchrotron X-ray Imaging. <i>Science</i> , 2003, 299, 558-560.	12.6	212
5	Feeding mechanics of teleost fishes (Labridae; Perciformes): A test of four-bar linkage models. <i>Journal of Morphology</i> , 1990, 205, 269-295.	1.2	199
6	Ecomorphology of Locomotion in Labrid Fishes. <i>Environmental Biology of Fishes</i> , 2002, 65, 47-62.	1.0	187
7	Mechanical performance of aquatic rowing and flying. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2000, 267, 1875-1881.	2.6	180
8	A biomechanical model for analysis of muscle force, power output and lower jaw motion in fishes. <i>Journal of Theoretical Biology</i> , 2003, 223, 269-281.	1.7	164
9	A review of contemporary patterns of endemism for shallow water reef fauna in the Red Sea. <i>Journal of Biogeography</i> , 2016, 43, 423-439.	3.0	150
10	Feeding, Function, and Phylogeny: Analysis of Historical Biomechanics in Labrid Fishes Using Comparative Methods. <i>Systematic Biology</i> , 1995, 44, 361-383.	5.6	140
11	Form and function of damselfish skulls: rapid and repeated evolution into a limited number of trophic niches. <i>BMC Evolutionary Biology</i> , 2009, 9, 24.	3.2	137
12	Performance limits of labriform propulsion and correlates with fin shape and motion. <i>Journal of Experimental Biology</i> , 2002, 205, 177-187.	1.7	135
13	On the origin of endemic species in the Red Sea. <i>Journal of Biogeography</i> , 2016, 43, 13-30.	3.0	133
14	Feeding mechanism of <i>Epibulus insidiator</i> (Labridae; Teleostei): Evolution of a novel functional system. <i>Journal of Morphology</i> , 1989, 202, 129-150.	1.2	131
15	The horizontal septum: Mechanisms of force transfer in locomotion of scombrid fishes (Scombridae). <i>TJ ETQq1 1 0.784314 rgBT /Ove</i>	1.2	130
16	Advances in Biological Structure, Function, and Physiology Using Synchrotron X-Ray Imaging. <i>Annual Review of Physiology</i> , 2008, 70, 119-142.	18.1	126
17	StereoMorph: an R package for the collection of 3D landmarks and curves using a stereo camera setâ€š. <i>Methods in Ecology and Evolution</i> , 2015, 6, 351-356.	5.2	116
18	Local phylogenetic divergence and global evolutionary convergence of skull function in reef fishes of the family Labridae. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2005, 272, 993-1000.	2.6	111

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19	Modulation of Light-Enhancement to Symbiotic Algae by Light-Scattering in Corals and Evolutionary Trends in Bleaching. PLoS ONE, 2013, 8, e61492.	2.5	106
20	Exploring the radiation of a diverse reef fish family: Phylogenetics of the damselfishes (Pomacentridae), with new classifications based on molecular analyses of all genera. Molecular Phylogenetics and Evolution, 2009, 52, 1-16.	2.7	105
21	Molecular phylogenetics of the butterflyfishes (Chaetodontidae): Taxonomy and biogeography of a global coral reef fish family. Molecular Phylogenetics and Evolution, 2007, 45, 50-68.	2.7	96
22	Fluid dynamics of flapping aquatic flight in the bird wrasse:three-dimensional unsteady computations with fin deformation. Journal of Experimental Biology, 2002, 205, 2997-3008.	1.7	87
23	Performance limits of labriform propulsion and correlates with fin shape and motion. Journal of Experimental Biology, 2002, 205, 177-87.	1.7	87
24	Functional Morphology of Aquatic Flight in Fishes: Kinematics, Electromyography, and Mechanical Modeling of Labriform Locomotion. American Zoologist, 1996, 36, 582-598.	0.7	80
25	Kinematics, Dynamics, and Energetics of Rowing and Flapping Propulsion in Fishes. Integrative and Comparative Biology, 2002, 42, 1032-1043.	2.0	80
26	Birdsong: motor function and the evolution of communication. Seminars in Neuroscience, 1992, 4, 385-390.	2.2	71
27	Functional morphology of bite mechanics in the great barracuda ( <i>Sphyræna barracuda</i> ). Zoology, 2008, 111, 16-29.	1.2	71
28	Correlated patterns of tracheal compression and convective gas exchange in a carabid beetle. Journal of Experimental Biology, 2008, 211, 3409-3420.	1.7	70
29	Mechanosensation is evolutionarily tuned to locomotor mechanics. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4459-4464.	7.1	68
30	Diversity of pectoral fin structure and function in fishes with labriform propulsion. Journal of Morphology, 2005, 263, 133-150.	1.2	67
31	Coordination of feeding, locomotor and visual systems in parrotfishes(Teleostei: Labridae). Journal of Experimental Biology, 2005, 208, 3503-3518.	1.7	64
32	Gene Rearrangements and Evolution of tRNA Pseudogenes in the Mitochondrial Genome of the Parrotfish (Teleostei: Perciformes: Scaridae). Journal of Molecular Evolution, 2004, 59, 287-297.	1.8	62
33	Linkage Biomechanics and Evolution of the Unique Feeding Mechanism of <i>Epibulus Insidiator</i> (Labridae: Teleostei). Journal of Experimental Biology, 1991, 159, 165-184.	1.7	59
34	Phylogenetic relationships and the evolution of regulatory gene sequences in the parrotfishes. Molecular Phylogenetics and Evolution, 2008, 49, 136-152.	2.7	58
35	Phylogenetic Relationships, Evolution of Broodcare Behavior, and Geographic Speciation in the Wrasse Tribe Labrini. Journal of Molecular Evolution, 2002, 55, 776-789.	1.8	56
36	Comparative and developmental functional morphology of the jaws of living and fossil gars (Actinopterygii: Lepisosteidae). Journal of Morphology, 2006, 267, 1017-1031.	1.2	55

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37	Quantitative color profiling of digital images with earth mover's distance using the R package colordistance. PeerJ, 2019, 7, e6398.	2.0	55
38	Predation on coral spawn by planktivorous fish. Coral Reefs, 1988, 7, 89-92.	2.2	49
39	Relationships of the temperate Australasian labrid fish tribe Odacini (Perciformes; Teleostei). Molecular Phylogenetics and Evolution, 2004, 32, 575-587.	2.7	49
40	7. Mechanical design for swimming: muscle, tendon, and bone. Fish Physiology, 2001, 19, 271-311.	0.8	46
41	Fluid dynamics of flapping aquatic flight in the bird wrasse: three-dimensional unsteady computations with fin deformation. Journal of Experimental Biology, 2002, 205, 2997-3008.	1.7	45
42	Skeletal light-scattering accelerates bleaching response in reef-building corals. BMC Ecology, 2016, 16, 10.	3.0	43
43	Motor Control Across Trophic Strategies: Muscle Activity of Biting and Suction Feeding Fishes. American Zoologist, 2001, 41, 1266-1279.	0.7	41
44	Modulation of prey capture kinematics in the cheeklined wrasse <i>Oxycheilinus digrammus</i> (Teleostei: Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.4	40
45	Pectoral fin coordination and gait transitions in steadily swimming juvenile reef fishes. Journal of Experimental Biology, 2006, 209, 3708-3718.	1.7	39
46	Linkage mechanisms in the vertebrate skull: Structure and function of three-dimensional, parallel transmission systems. Journal of Morphology, 2016, 277, 1570-1583.	1.2	33
47	The evolution of jaw protrusion mechanics has been tightly coupled to benthic-pelagic divergence in damselfishes (Pomacentridae). Journal of Experimental Biology, 2017, 220, 652-666.	1.7	32
48	Motor Patterns of Herbivorous Feeding: Electromyographic Analysis of Biting in the Parrotfishes <i>Cetoscarus bicolor</i> and <i>Scarus iseri</i> . Brain, Behavior and Evolution, 1999, 54, 205-222.	1.7	31
49	Shark Tooth Weapons from the 19th Century Reflect Shifting Baselines in Central Pacific Predator Assemblies. PLoS ONE, 2013, 8, e59855.	2.5	31
50	Biomechanics of cranial kinesis in birds: Testing linkage models in the white-throated sparrow ( <i>Zonotrichia albicollis</i> )., 1996, 227, 305-320.		28
51	Taxonomy and biogeography of the coastal fishes of Juan Fernandez Archipelago and Desventuradas Islands, Chile. Revista De Biologia Marina Y Oceanografia, 0, 45, 589-617.	0.2	28
52	A biomechanical model of feeding kinematics for <i>Dunkleosteus terrelli</i> (Arthrodira, Placodermi). Paleobiology, 2009, 35, 251-269.	2.0	26
53	Mechanics of Pectoral Fin Swimming in Fishes. Fish Physiology, 2005, 23, 369-423.	0.8	23
54	Phylogenetic relationships and the evolution of BMP4 in triggerfishes and filefishes (Balistoidea). Molecular Phylogenetics and Evolution, 2016, 94, 397-409.	2.7	20

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55	Do Coral Reefs Promote Morphological Diversification? Exploration of Habitat Effects on Labrid Pharyngeal Jaw Evolution in the Era of Big Data. <i>Integrative and Comparative Biology</i> , 2019, 59, 696-704.	2.0	20
56	The relationship between pectoral fin ray stiffness and swimming behavior in Labridae: insights into design, performance, and ecology. <i>Journal of Experimental Biology</i> , 2018, 221, .	1.7	18
57	Vertebrates: Comparative Anatomy, Function, Evolution.â€” Kenneth V. Kardong. 1998. Second Edition. McGraw-Hill, Boston, Massachusetts. <i>Systematic Biology</i> , 1998, 47, 762-763.	5.6	16
58	Four-bar linkage modelling in teleost pharyngeal jaws: computer simulations of bite kinetics. <i>Journal of Anatomy</i> , 2006, 209, 79-92.	1.5	16
59	The Phylogenetic Affinities of the Mysterious Anguilliform Genera <i>Coloconger</i> and <i>Thalassenchelys</i> as Supported by mtDNA Sequences. <i>Copeia</i> , 2007, 2007, 959-966.	1.3	16
60	Feeding biomechanics of juvenile red snapper ( <i>Lutjanus campechanus</i> ) from the northwestern Gulf of Mexico. <i>Journal of Experimental Biology</i> , 2008, 211, 3826-3835.	1.7	16
61	Diversification of coordination patterns during feeding behaviour in cheiline wrasses. <i>Biological Journal of the Linnean Society</i> , 0, 93, 289-308.	1.6	15
62	Burrowing fishes: Kinematics, morphology and phylogeny of sand-diving wrasses (Labridae). <i>Journal of Fish Biology</i> , 2018, 93, 860-873.	1.6	15
63	Phylogeny of the damselfishes (Pomacentridae) and patterns of asymmetrical diversification in body size and feeding ecology. <i>PLoS ONE</i> , 2021, 16, e0258889.	2.5	15
64	Systematics Agenda 2020: The Mission Evolves. <i>Systematic Biology</i> , 2012, 61, 549-552.	5.6	14
65	Fins as Mechanosensors for Movement and Touch-Related Behaviors. <i>Integrative and Comparative Biology</i> , 2018, 58, 844-859.	2.0	14
66	Functional morphology of endurance swimming performance and gait transition strategies in balistoid fishes. <i>Journal of Experimental Biology</i> , 2019, 222, .	1.7	14
67	The impact of paleoclimatic changes on body size evolution in marine fishes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	14
68	A comparison of pectoral fin ray morphology and its impact on fin ray flexural stiffness in labriform swimmers. <i>Journal of Morphology</i> , 2018, 279, 1031-1044.	1.2	12
69	Phylogenetic analysis of symbiont transmission mechanisms reveal evolutionary patterns in thermotolerance and host specificity that enhance bleaching resistance among vertically transmitted <i>Symbiodinium</i> . <i>European Journal of Phycology</i> , 2018, 53, 443-459.	2.0	12
70	Evolutionary patterns of shape and functional diversification in the skull and jaw musculature of triggerfishes (Teleostei: Balistidae). <i>Journal of Morphology</i> , 2016, 277, 737-752.	1.2	11
71	Dirt-sifting devilfish: winnowing in the geophagine cichlid <i>Satanoperca daemon</i> and evolutionary implications. <i>Zoomorphology</i> , 2017, 136, 45-59.	0.8	11
72	Pectoral fin kinematics and motor patterns are shaped by fin ray mechanosensation during steady swimming in <i>Scarus quoyi</i> . <i>Journal of Experimental Biology</i> , 2020, 223, .	1.7	11

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73	Electromyographic Analysis of Oral Habituation in Rat Pups. <i>Physiology and Behavior</i> , 1998, 63, 197-203.	2.1	9
74	Re-description and Reassignment of the Damselfish <i>Abudefduf luridus</i> (Cuvier, 1830) Using Both Traditional and Geometric Morphometric Approaches. <i>Copeia</i> , 2014, 2014, 473-480.	1.3	9
75	How fish power suction feeding. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 8525-8526.	7.1	9
76	The Evolutionary Continuum of Functional Homodonty to Heterodonty in the Dentition of <i>Halichoeres</i> Wrasses. <i>Integrative and Comparative Biology</i> , 2023, 63, 176-187.	2.0	9
77	Feeding kinematics and morphology of the alligator gar ( <i>Atractosteus spatula</i> , Lacépède, 1803). <i>Journal of Morphology</i> , 2019, 280, 1548-1570.	1.2	8
78	Wing Shape in Waterbirds: Morphometric Patterns Associated with Behavior, Habitat, Migration, and Phylogenetic Convergence. <i>Integrative Organismal Biology</i> , 2021, 3, obab011.	1.8	8
79	Bioinspiration From Flexible Propulsors: Organismal Design, Mechanical Properties, Kinematics and Neurobiology of Pectoral Fins in Labrid Fishes. <i>Marine Technology Society Journal</i> , 2017, 51, 23-34.	0.4	7
80	Piranha Predation Could Not Have Driven the Evolution of <i>Arapaima gigas</i> Scales. <i>Matter</i> , 2020, 3, 1976-1978.	10.0	6
81	Suction feeding biomechanics of <i>Polypterus bichir</i> : investigating linkage mechanisms and the contributions of cranial kinesis to oral cavity volume change. <i>Journal of Experimental Biology</i> , 2022, 225, .	1.7	5
82	A new species of <i>Suezichthys</i> (Teleostei: Perciformes: Labridae) from the south-eastern Pacific, with a redefinition of the genus and a key to species. <i>Zootaxa</i> , 2013, 3640, 88-94.	0.5	4
83	Air Breathing and Suction Feeding Kinematics in the West African Lungfish, <i>Protopterus annectens</i> . <i>Integrative and Comparative Biology</i> , 0, .	2.0	4
84	<i>Scarus maculipinna</i> , a new species of parrotfish (Perciformes, Scaridae) from the eastern Indian Ocean. <i>Zootaxa</i> , 2007, 1628, .	0.5	3
85	Twice bitten. <i>Nature</i> , 2007, 449, 33-34.	27.8	2
86	VERTEBRATE FUNCTIONAL MORPHOLOGY: HORIZON OF RESEARCH IN THE 21ST CENTURY. <i>Copeia</i> , 2003, 2003, 210-212.	1.3	0
87	Detection of Shifts in Coral Reef Fish Assemblage Structure Over 50 Years at Reefs of New Providence Island, the Bahamas Highlight the Value of the Academy of Natural Sciences' Collections in a Changing World. <i>Proceedings of the Academy of Natural Sciences of Philadelphia</i> , 2013, 162, 61-87.	0.5	0
88	Hyperdevelopment of the tracheal system in larger insects. <i>FASEB Journal</i> , 2006, 20, LB24.	0.5	0