Mark W Westneat

List of Publications by Year
in descending order

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	The Evolutionary Continuum of Functional Homodonty to Heterodonty in the Dentition of Halichoeres Wrasses. Integrative and Comparative Biology, 2023, 63, 176-187.	2.0	9
2	Suction feeding biomechanics of Polypterus bichir: investigating linkage mechanisms and the contributions of cranial kinesis to oral cavity volume change. Journal of Experimental Biology, 2022, 225, .	1.7	5
3	The impact of paleoclimatic changes on body size evolution in marine fishes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	14
4	Wing Shape in Waterbirds: Morphometric Patterns Associated with Behavior, Habitat, Migration, and Phylogenetic Convergence. Integrative Organismal Biology, 2021, 3, obab011.	1.8	8
5	Phylogeny of the damselfishes (Pomacentridae) and patterns of asymmetrical diversification in body size and feeding ecology. PLoS ONE, 2021, 16, e0258889.	2.5	15
6	Pectoral fin kinematics and motor patterns are shaped by fin ray mechanosensation during steady swimming in Scarus quoyi. Journal of Experimental Biology, 2020, 223, .	1.7	11
7	Piranha Predation Could Not Have Driven the Evolution of ArapaimaÂgigasÂScales. Matter, 2020, 3, 1976-1978.	10.0	6
8	Feeding kinematics and morphology of the alligator gar (Atractosteus spatula, LacÃ©pÃ¨de, 1803). Journal of Morphology, 2019, 280, 1548-1570.	1.2	8
9	Do Coral Reefs Promote Morphological Diversification? Exploration of Habitat Effects on Labrid Pharyngeal Jaw Evolution in the Era of Big Data. Integrative and Comparative Biology, 2019, 59, 696-704.	2.0	20
10	Functional morphology of endurance swimming performance and gait transition strategies in balistoid fishes. Journal of Experimental Biology, 2019, 222, .	1.7	14
11	Quantitative color profiling of digital images with earth moverâ€™s distance using the R package colordistance. PeerJ, 2019, 7, e6398.	2.0	55
12	The relationship between pectoral fin ray stiffness and swimming behavior in Labridae: insights into design, performance, and ecology. Journal of Experimental Biology, 2018, 221, .	1.7	18
13	A comparison of pectoral fin ray morphology and its impact on fin ray flexural stiffness in labriform swimmers. Journal of Morphology, 2018, 279, 1031-1044.	1.2	12
14	Burrowing fishes: Kinematics, morphology and phylogeny of sandâ€diving wrasses (Labridae). Journal of Fish Biology, 2018, 93, 860-873.	1.6	15
15	Fins as Mechanosensors for Movement and Touch-Related Behaviors. Integrative and Comparative Biology, 2018, 58, 844-859.	2.0	14
16	Phylogenetic analysis of symbiont transmission mechanisms reveal evolutionary patterns in thermotolerance and host specificity that enhance bleaching resistance among vertically transmitted Symbiodinium. European Journal of Phycology, 2018, 53, 443-459.	2.0	12
17	The evolution of jaw protrusion mechanics has been tightly coupled to bentho-pelagic divergence in damselfishes (Pomacentridae). Journal of Experimental Biology, 2017, 220, 652-666.	1.7	32
18	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

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19	Dirt-sifting devilfish: winnowing in the geophagine cichlid Satanoperca daemon and evolutionary implications. Zoomorphology, 2017, 136, 45-59.	0.8	11
20	Bioinspiration From Flexible Propulsors: Organismal Design, Mechanical Properties, Kinematics and Neurobiology of Pectoral Fins in Labrid Fishes. Marine Technology Society Journal, 2017, 51, 23-34.	0.4	7
21	Evolutionary patterns of shape and functional diversification in the skull and jaw musculature of triggerfishes (Teleostei: Balistidae). Journal of Morphology, 2016, 277, 737-752.	1.2	11
22	Linkage mechanisms in the vertebrate skull: Structure and function of threeâ€dimensional, parallel transmission systems. Journal of Morphology, 2016, 277, 1570-1583.	1.2	33
23	Skeletal light-scattering accelerates bleaching response in reef-building corals. BMC Ecology, 2016, 16, 10.	3.0	43
24	On the origin of endemic species in the Red Sea. Journal of Biogeography, 2016, 43, 13-30.	3.0	133
25	A review of contemporary patterns of endemism for shallow water reef fauna in the Red Sea. Journal of Biogeography, 2016, 43, 423-439.	3.0	150
26	Phylogenetic relationships and the evolution of BMP4 in triggerfishes and filefishes (Balistoidea). Molecular Phylogenetics and Evolution, 2016, 94, 397-409.	2.7	20
27	How fish power suction feeding. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8525-8526.	7.1	9
28	StereoMorph: an R package for the collection of 3D landmarks and curves using a stereo camera setâ€up. Methods in Ecology and Evolution, 2015, 6, 351-356.	5.2	116
29	Re-description and Reassignment of the DamselfishAbudefduf luridus(Cuvier, 1830) Using Both Traditional and Geometric Morphometric Approaches. Copeia, 2014, 2014, 473-480.	1.3	9
30	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. Proceedings of the Academy of Natural Sciences of Philadelphia, 2013, 162, 61-87.	0.5	0
31	Shark Tooth Weapons from the 19th Century Reflect Shifting Baselines in Central Pacific Predator Assemblies. PLoS ONE, 2013, 8, e59855.	2.5	31
32	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. Zootaxa, 2013, 3640, 88-94.	0.5	4
33	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
34	Systematics Agenda 2020: The Mission Evolves. Systematic Biology, 2012, 61, 549-552.	5.6	14
35	Form and function of damselfish skulls: rapid and repeated evolution into a limited number of trophic niches. BMC Evolutionary Biology, 2009, 9, 24.	3.2	137
36	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

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37	A biomechanical model of feeding kinematics forDunkleosteus terrelli(Arthrodira, Placodermi). Paleobiology, 2009, 35, 251-269.	2.0	26
38	Phylogenetic relationships and the evolution of regulatory gene sequences in the parrotfishes. Molecular Phylogenetics and Evolution, 2008, 49, 136-152.	2.7	58
39	Functional morphology of bite mechanics in the great barracuda (Sphyraena barracuda). Zoology, 2008, 111, 16-29.	1.2	71
40	Feeding biomechanics of juvenile red snapper (Lutjanus campechanus) from the northwestern Gulf of Mexico. Journal of Experimental Biology, 2008, 211, 3826-3835.	1.7	16
41	Advances in Biological Structure, Function, and Physiology Using Synchrotron X-Ray Imaging. Annual Review of Physiology, 2008, 70, 119-142.	13.1	126
42	Correlated patterns of tracheal compression and convective gas exchange in a carabid beetle. Journal of Experimental Biology, 2008, 211, 3409-3420.	1.7	70
43	The Phylogenetic Affinities of the Mysterious Anguilliform Genera Coloconger and Thalassenchelys as Supported by mTDNA Sequences. Copeia, 2007, 2007, 959-966.	1.3	16
44	Scarus maculipinna, a new species of parrotfish (Perciformes, Scaridae) from the eastern Indian Ocean. Zootaxa, 2007, 1628, .	0.5	3
45	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
46	Twice bitten. Nature, 2007, 449, 33-34.	27.8	2
47	Four-bar linkage modelling in teleost pharyngeal jaws: computer simulations of bite kinetics. Journal of Anatomy, 2006, 209, 79-92.	1.5	16
48	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
49	Pectoral fin coordination and gait transitions in steadily swimming juvenile reef fishes. Journal of Experimental Biology, 2006, 209, 3708-3718.	1.7	39
50	Hyperâ€development of the tracheal system in larger insects. FASEB Journal, 2006, 20, LB24.	0.5	0
51	Phylogenetic relationships and evolutionary history of the reef fish family Labridae. Molecular Phylogenetics and Evolution, 2005, 36, 370-390.	2.7	256
52	Diversity of pectoral fin structure and function in fishes with labriform propulsion. Journal of Morphology, 2005, 263, 133-150.	1.2	67
53	Local phylogenetic divergence and global evolutionary convergence of skull function in reef fishes of the family Labridae. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 993-1000.	2.6	111
54	Coordination of feeding, locomotor and visual systems in parrotfishes(Teleostei: Labridae). Journal of Experimental Biology, 2005, 208, 3503-3518.	1.7	64

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55	Mechanics of Pectoral Fin Swimming in Fishes. Fish Physiology, 2005, 23, 369-423.	0.8	23
56	A functional morphospace for the skull of labrid fishes: patterns of diversity in a complex biomechanical system. Biological Journal of the Linnean Society, 2004, 82, 1-25.	1.6	224
57	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
58	Relationships of the temperate Australasian labrid fish tribe Odacini (Perciformes; Teleostei). Molecular Phylogenetics and Evolution, 2004, 32, 575-587.	2.7	49
59	Evolution of Levers and Linkages in the Feeding Mechanisms of Fishes. Integrative and Comparative Biology, 2004, 44, 378-389.	2.0	213
60	Tracheal Respiration in Insects Visualized with Synchrotron X-ray Imaging. Science, 2003, 299, 558-560.	12.6	212
61	A biomechanical model for analysis of muscle force, power output and lower jaw motion in fishes. Journal of Theoretical Biology, 2003, 223, 269-281.	1.7	164
62	VERTEBRATE FUNCTIONAL MORPHOLOGY: HORIZON OF RESEARCH IN THE 21ST CENTURY. Copeia, 2003, 2003, 210-212.	1.3	0
63	Kinematics, Dynamics, and Energetics of Rowing and Flapping Propulsion in Fishes. Integrative and Comparative Biology, 2002, 42, 1032-1043.	2.0	80
64	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
65	Ecomorphology of Locomotion in Labrid Fishes. Environmental Biology of Fishes, 2002, 65, 47-62.	1.0	187
66	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
67	Performance limits of labriform propulsion and correlates with fin shape and motion. Journal of Experimental Biology, 2002, 205, 177-187.	1.7	135
68	Performance limits of labriform propulsion and correlates with fin shape and motion. Journal of Experimental Biology, 2002, 205, 177-87.	1.7	87
69	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
70	Motor Control Across Trophic Strategies: Muscle Activity of Biting and Suction Feeding Fishes. American Zoologist, 2001, 41, 1266-1279.	0.7	41
71	Modulation of prey capture kinematics in the cheeklined wrasseOxycheilinus digrammus (Teleostei:) Tj ETQq1 1 0.784314 rgBT /Over	1.4	40
72	7. Mechanical design for swimming: muscle, tendon, and bone. Fish Physiology, 2001, 19, 271-311.	0.8	46

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73	Mechanical performance of aquatic rowing and flying. Proceedings of the Royal Society B: Biological Sciences, 2000, 267, 1875-1881.	2.6	180
74	Motor Patterns of Herbivorous Feeding: Electromyographic Analysis of Biting in the Parrotfishes Cetoscarus bicolor and Scarus iseri. Brain, Behavior and Evolution, 1999, 54, 205-222.	1.7	31
75	Electromyographic Analysis of Oral Habituation in Rat Pups. Physiology and Behavior, 1998, 63, 197-203.	2.1	9
76	Vertebrates: Comparative Anatomy, Function, Evolution.â€" Kenneth V. Kardong. 1998. Second Edition. McGraw-Hill, Boston, Massachusetts. Systematic Biology, 1998, 47, 762-763.	5.6	16
77	Functional Morphology of Aquatic Flight in Fishes: Kinematics, Electromyography, and Mechanical Modeling of Labriform Locomotion. American Zoologist, 1996, 36, 582-598.	0.7	80
78	Biomechanics of cranial kinesis in birds: Testing linkage models in the white-throated sparrow (Zonotrichia albicollis). , 1996, 227, 305-320.		28
79	Feeding, Function, and Phylogeny: Analysis of Historical Biomechanics in Labrid Fishes Using Comparative Methods. Systematic Biology, 1995, 44, 361-383.	5.6	140
80	The horizontal septum: Mechanisms of force transfer in locomotion of scombrid fishes (Scombridae,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.2	130
81	Birdsong: motor function and the evolution of communication. Seminars in Neuroscience, 1992, 4, 385-390.	2.2	71
82	Linkage Biomechanics and Evolution of the Unique Feeding Mechanism of Epibulus Insidiator (Labridae: Teleostei). Journal of Experimental Biology, 1991, 159, 165-184.	1.7	59
83	Feeding mechanics of teleost fishes (Labridae; Perciformes): A test of four-bar linkage models. Journal of Morphology, 1990, 205, 269-295.	1.2	199
84	Feeding mechanism ofEpibulus insidiator (Labridae; Teleostei): Evolution of a novel functional system. Journal of Morphology, 1989, 202, 129-150.	1.2	131
85	Predation on coral spawn by planktivorous fish. Coral Reefs, 1988, 7, 89-92.	2.2	49
86	Diversification of coordination patterns during feeding behaviour in cheiline wrasses. Biological Journal of the Linnean Society, 0, 93, 289-308.	1.6	15
87	Taxonomy and biogeography of the coastal fishes of Juan FernÃ¡ndez Archipelago and Desventuradas Islands, Chile. Revista De Biologia Marina Y Oceanografia, 0, 45, 589-617.	0.2	28
88	Air Breathing and Suction Feeding Kinematics in the West African Lungfish, Protopterus Annectens. Integrative and Comparative Biology, 0, , .	2.0	4