David J Mckenzie

List of Publications by Year
in descending order

122 papers	5,841 citations	66343 42 h-index	95266 68 g-index
127 all docs	127 docs citations	127 times ranked	4478 citing authors

#	Article	IF	Citations
1	Environmental stressors alter relationships between physiology and behaviour. Trends in Ecology and Evolution, 2013, 28, 651-658.	8.7	291
2	Oxygen- and capacity-limited thermal tolerance: blurring ecology and physiology. Journal of Experimental Biology, 2018, 221, .	1.7	204
3	Fish swimming in schools save energy regardless of their spatial position. Behavioral Ecology and Sociobiology, 2015, 69, 219-226.	1.4	195
4	Fuel, fasting, fear: routine metabolic rate and food deprivation exert synergistic effects on risk-taking in individual juvenile European sea bass. Journal of Animal Ecology, 2011, 80, 1024-1033.	2.8	172
5	Linking swimming performance, cardiac pumping ability and cardiac anatomy in rainbow trout. Journal of Experimental Biology, 2005, 208, 1775-1784.	1.7	170
6	Aerobic capacity influences the spatial position of individuals within fish schools. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 357-364.	2.6	147
7	A relationship between metabolic rate and riskâ€taking behaviour is revealed during hypoxia in juvenile European sea bass. Functional Ecology, 2012, 26, 134-143.	3.6	139
8	A new analysis of hypoxia tolerance in fishes using a database of critical oxygen level (P_{crit}). , 2016, 4, cow012.		133
9	Root Effect Hemoglobin May Have Evolved to Enhance General Tissue Oxygen Delivery. Science, 2013, 340, 1327-1329.	12.6	130
10	Individual variation and repeatability in aerobic and anaerobic swimming performance of European sea bass,Dicentrarchus labrax. Journal of Experimental Biology, 2010, 213, 26-32.	1.7	123
11	Models projecting the fate of fish populations under climate change need to be based on valid physiological mechanisms. Global Change Biology, 2017, 23, 3449-3459.	9.5	123
12	Title is missing!. Fish Physiology and Biochemistry, 1998, 19, 111-122.	2.3	98
13	Physiological mechanisms underlying a trade-off between growth rate and tolerance of feed deprivation in the European sea bass (Dicentrarchus labrax). Journal of Experimental Biology, 2010, 213, 1143-1152.	1.7	94
14	Conservation physiology of marine fishes: state of the art and prospects for policy. , 2016, 4, cow046.		89
15	Effects of growth hormone transgenesis on metabolic rate, exercise performance and hypoxia tolerance in tilapia hybrids. Journal of Fish Biology, 2003, 63, 398-409.	1.6	86
16	Reflex Cardioventilatory Responses to Hypoxia in the Flathead Gray Mullet (Mugil cephalus) and Their Behavioral Modulation by Perceived Threat of Predation and Water Turbidity. Physiological and Biochemical Zoology, 2005, 78, 744-755.	1.5	81
17	The Effects of Branchial Denervation and Pseudobranch Ablation on Cardioventilatory Control in an Air-Breathing Fish. Journal of Experimental Biology, 1991, 161, 347-365.	1.7	80
18	Behavioural and kinematic components of the fast-start escape response in fish: individual variation and temporal repeatability. Journal of Experimental Biology, 2011, 214, 3102-3110.	1.7	78

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19	Effects of stocking density and sustained aerobic exercise on growth, energetics and welfare of rainbow trout. Aquaculture, 2012, 338-341, 216-222.	3.5	78
20	Metabolic rate in fishes: definitions, methods and significance for conservation physiology. Journal of Fish Biology, 2016, 88, 1-9.	1.6	75
21	Chapter 2 Behavioral Responses and Ecological Consequences. Fish Physiology, 2009, , 25-77.	0.8	71
22	Highlights of the 3rd International Symposium on Sturgeon: Conclusions and Recommendations. Journal of Applied Ichthyology, 1999, 15, 1-6.	0.7	69
23	Intraspecific variation in tolerance of warming in fishes. Journal of Fish Biology, 2021, 98, 1536-1555.	1.6	69
24	Title is missing!. Fish Physiology and Biochemistry, 1998, 19, 123-134.	2.3	68
25	Effects of acclimation to brackish water on the growth, respiratory metabolism, and swimming performance of young-of-the-year Adriatic sturgeon (Acipenser naccarii). Canadian Journal of Fisheries and Aquatic Sciences, 2001, 58, 1104-1112.	1.4	66
26	Complex physiological traits as biomarkers of the sub-lethal toxicological effects of pollutant exposure in fishes. Philosophical Transactions of the Royal Society B: Biological Sciences, 2007, 362, 2043-2059.	4.0	66
27	Tolerance of chronic hypercapnia by the European eelAnguilla anguilla. Journal of Experimental Biology, 2003, 206, 1717-1726.	1.7	65
28	Differential expression of the heat shock protein Hsp70 in natural populations of the tilapia, Sarotherodon melanotheron, acclimatised to a range of environmental salinities. BMC Ecology, 2010, 10, 11.	3.0	65
29	Anaemia only causes a small reduction in the upper critical temperature of sea bass: is oxygen delivery the limiting factor for tolerance of acute warming in fishes?. Journal of Experimental Biology, 2014, 217, 4275-8.	1.7	63
30	An Investigation of Metabolic Prioritization in the European Sea Bass,Dicentrarchus labrax. Physiological and Biochemical Zoology, 2010, 83, 68-77.	1.5	62
31	The effects of sustained exercise and hypoxia upon oxygen tensions in the red muscle of rainbow trout. Journal of Experimental Biology, 2004, 207, 3629-3637.	1.7	60
32	Environmental constraints upon locomotion and predatorâ€“prey interactions in aquatic organisms: an introduction. Philosophical Transactions of the Royal Society B: Biological Sciences, 2007, 362, 1929-1936.	4.0	60
33	Associations between tissue fatty acid composition and physiological traits of performance and metabolism in the seabass (Dicentrarchus labrax). Journal of Experimental Biology, 2006, 209, 3429-3439.	1.7	57
34	Guidelines for reporting methods to estimate metabolic rates by aquatic intermittent-flow respirometry. Journal of Experimental Biology, 2021, 224, .	1.7	57
35	Sub-lethal plasma ammonia accumulation and the exercise performance of salmonids. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2003, 135, 515-526.	1.8	54
36	Aspects of cardioventilatory control in the adriatic sturgeon (Acipenser naccarii). Respiration Physiology, 1995, 100, 45-53.	2.7	53

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37	Effects of changes in water salinity upon exercise and cardiac performance in the European seabass (Dicentrarchus labrax). Marine Biology, 2005, 147, 855-862.	1.5	53
38	Effects of feeding and hypoxia on cardiac performance and gastrointestinal blood flow during critical speed swimming in the sea bass Dicentrarchus labrax. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2009, 154, 233-240.	1.8	53
39	The autonomic control and functional significance of the changes in heart rate associated with air breathing in the jeju,Hoplerythrinus unitaeniatus. Journal of Experimental Biology, 2007, 210, 4224-4232.	1.7	52
40	Effects of diet on spontaneous locomotor activity and oxygen consumption in Adriatic sturgeon (Acipenser naccarii). Fish Physiology and Biochemistry, 1995, 14, 341-355.	2.3	51
41	Gastrointestinal Blood Flow and Postprandial Metabolism in Swimming Sea BassDicentrarchus labrax. Physiological and Biochemical Zoology, 2008, 81, 663-672.	1.5	51
42	The role of mechanistic physiology in investigating impacts of global warming on fishes. Journal of Experimental Biology, 2021, 224, .	1.7	50
43	Effects of dietary fatty acids on the respiratory and cardiovascular physiology of fish. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2001, 128, 605-619.	1.8	49
44	In modelling effects of global warming, invalid assumptions lead to unrealistic projections. Global Change Biology, 2018, 24, 553-556.	9.5	49
45	Control of respiration in fish, amphibians and reptiles. Brazilian Journal of Medical and Biological Research, 2010, 43, 409-424.	1.5	48
46	Understanding the individual to implement the ecosystem approach to fisheries management. , 2016, 4, cow005.		46
47	Relationships among Traits of Aerobic and Anaerobic Swimming Performance in Individual European Sea Bass Dicentrarchus labrax. PLoS ONE, 2013, 8, e72815.	2.5	46
48	Oxygen consumption and ventilatory reflex responses are influenced by dietary lipids in sturgeon. Fish Physiology and Biochemistry, 1997, 16, 365-379.	2.3	45
49	Ventilatory and Cardiovascular Responses to Blood pH, Plasma P<scp>co</scp>₂, Blood O₂Content, and Catecholamines in an Air-Breathing Fish, the Bowfin (Amia calva). Physiological Zoology, 1991, 64, 432-450.	1.5	43
50	Aspects of respiratory physiology and energetics in rainbow trout (Oncorhynchus mykiss) families with different size-at-age and condition factor. Aquaculture, 2007, 263, 280-294.	3.5	43
51	Conservation physiology of marine fishes: advancing the predictive capacity of models. Biology Letters, 2012, 8, 900-903.	2.3	43
52	Effects of glyphosate and the glyphosate based herbicides Roundup Original Â® and Roundup Transorb Â® on respiratory morphophysiology of bullfrog tadpoles. Chemosphere, 2016, 156, 37-44.	8.2	43
53	Some aspects of osmotic and ionic regulation in Adriatic sturgeon Acipenser naccarii. II: Morpho-physiological adjustments to hyperosmotic environments. Journal of Applied Ichthyology, 1999, 15, 61-66.	0.7	42
54	Essential fatty acids influence metabolic rate and tolerance of hypoxia in Dover sole (Solea solea) larvae and juveniles. Marine Biology, 2008, 154, 1041-1051.	1.5	42

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55	Sublethal Concentrations of Ammonia Impair Performance of the Teleost Fastâ€Start Escape Response. Physiological and Biochemical Zoology, 2009, 82, 353-362.	1.5	41
56	The effects of stocking density and low level sustained exercise on the energetic efficiency of rainbow trout (Oncorhynchus mykiss) reared at 19Â°C. Aquaculture, 2012, 324-325, 226-233.	3.5	41
57	A comparison of highly unsaturated fatty acid levels in wild and farmed eels (Anguilla Anguilla). Comparative Biochemistry and Physiology Part B: Comparative Biochemistry, 1992, 101, 79-81.	0.2	40
58	Effects of acclimation to brackish water on tolerance of salinity challenge by young-of-the-year Adriatic sturgeon (Acipenser naccarii). Canadian Journal of Fisheries and Aquatic Sciences, 2001, 58, 1113-1121.	1.4	40
59	Evolutionary and cardioâ€respiratory physiology of airâ€breathing and amphibious fishes. Acta Physiologica, 2020, 228, e13406.	3.8	40
60	Some aspects of osmotic and ionic regulation in Adriatic sturgeon Acipenser naccarii. I: Ontogenesis of salinity tolerance. Journal of Applied Ichthyology, 1999, 15, 57-60.	0.7	39
61	Effects of changes in plasma pH, CO2 and ammonia on ventilation in trout. Fish Physiology and Biochemistry, 1993, 10, 507-515.	2.3	37
62	Temporal stability of otolith elemental fingerprints discriminates among lagoon nursery habitats. Estuarine, Coastal and Shelf Science, 2013, 131, 182-193.	2.1	37
63	Fast growers sprint slower: effects of food deprivation and re-feeding on sprint swimming performance in individual juvenile European sea bass. Journal of Experimental Biology, 2014, 217, 859-65.	1.7	37
64	Conservation physiology across scales: insights from the marine realm. , 2014, 2, cou024-cou024.		37
65	To boldly gulp: standard metabolic rate and boldness have context-dependent influences on risk-taking to breathe air in a catfish. Journal of Experimental Biology, 2015, 218, 3762-3770.	1.7	37
66	Lagoon nurseries make a major contribution to adult populations of a highly prized coastal fish. Limnology and Oceanography, 2017, 62, 1219-1233.	3.1	37
67	Swimming alters responses to hypoxia in the Adriatic sturgeon Acipenser naccarii. Journal of Fish Biology, 2007, 70, 651-658.	1.6	36
68	Title is missing!. Fish Physiology and Biochemistry, 2000, 22, 281-296.	2.3	35
69	The role of dietary n-3 fatty acid and vitamin e supplements in growth of sturgeon (Acipenser) Tj ETQq1 1 0.784314 rgBT /Overlock 1	0.6	34
70	Tissue levels and biomarkers of organic contaminants in feral and caged chub (Leuciscus cephalus) from rivers in the West Midlands, UK. Aquatic Toxicology, 2005, 73, 394-405.	4.0	34
71	Recovery by the Norway lobster Nephrops norvegicus (L.) from the physiological stresses of trawling: Influence of season and live-storage position. Journal of Experimental Marine Biology and Ecology, 2009, 373, 124-132.	1.5	34
72	Abolition of reflex bradycardia by cardiac vagotomy has no effect on the regulation of oxygen uptake by Atlantic cod in progressive hypoxia. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2009, 153, 332-338.	1.8	32

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73	Aerobic swimming in intensive finfish aquaculture: applications for production, mitigation and selection. Reviews in Aquaculture, 2021, 13, 138-155.	9.0	32
74	Tolerance of acute hypercapnic acidosis by the European eel (Anguilla anguilla). Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2002, 172, 339-346.	1.5	31
75	Local Adaptation to Altitude Underlies Divergent Thermal Physiology in Tropical Killifishes of the Genus Aphyosemion. PLoS ONE, 2013, 8, e54345.	2.5	29
76	Food in the Sea: Size Also Matters for Pelagic Fish. Frontiers in Marine Science, 2019, 6, .	2.5	29
77	Getting a Good Start in Life? A Comparative Analysis of the Quality of Lagoons as Juvenile Habitats for the Gilthead Seabream Sparus aurata in the Gulf of Lions. Estuaries and Coasts, 2015, 38, 1937-1950.	2.2	28
78	Microcystin â€“ LR exposure causes cardiorespiratory impairments and tissue oxidative damage in trahira, Hoplias malabaricus. Ecotoxicology and Environmental Safety, 2019, 173, 436-443.	6.0	28
79	The contribution of air breathing to aerobic scope and exercise performance in the banded knifefishGymnotus carapoL.. Journal of Experimental Biology, 2012, 215, 1323-1330.	1.7	27
80	Autonomic regulation of the heart during digestion and aerobic swimming in the European sea bass (Dicentrarchus labrax). Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2010, 156, 463-468.	1.8	25
81	Using aerobic exercise to evaluate sub-lethal tolerance of acute warming in fishes. Journal of Experimental Biology, 2020, 223, .	1.7	25
82	Measuring oxygen uptake in fishes with bimodal respiration. Journal of Fish Biology, 2016, 88, 206-231.	1.6	24
83	Effects of global warming on fishes and fisheries. Journal of Fish Biology, 2021, 98, 1489-1492.	1.6	24
84	Venous responses during exercise in rainbow trout, Oncorhynchus mykiss: Î±-adrenergic control and the antihypotensive function of the reninâ€“angiotensin system. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2006, 144, 401-409.	1.8	23
85	Salinity-related variation in gene expression in wild populations of the black-chinned tilapia from various West African coastal marine, estuarine and freshwater habitats. Estuarine, Coastal and Shelf Science, 2011, 91, 102-109.	2.1	23
86	Physiological mechanisms underlying individual variation in tolerance of food deprivation in juvenile European sea bass, Dicentrarchus labrax. Journal of Experimental Biology, 2014, 217, 3283-3292.	1.7	23
87	Effects of diet on responses to exhaustive exercise in Nile tilapia (Oreochromis nilotica) acclimated to three different temperatures. Comparative Biochemistry and Physiology A, Comparative Physiology, 1996, 114, 43-50.	0.6	21
88	Changes in foraging mode caused by a decline in prey size have major bioenergetic consequences for a small pelagic fish. Journal of Animal Ecology, 2021, 90, 2289-2301.	2.8	21
89	Control of air-breathing in fishes: Central and peripheral receptors. Acta Histochemica, 2018, 120, 642-653.	1.8	20
90	Does Amia Calva aestivate?. Fish Physiology and Biochemistry, 1990, 8, 147-158.	2.3	19

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91	The influence of dietary fatty acid composition on the respiratory and cardiovascular physiology of Adriatic sturgeon (Acipenser naccarii): a review. Journal of Applied Ichthyology, 1999, 15, 265-269.	0.7	19
92	Swimming in airâ€breathing fishes. Journal of Fish Biology, 2014, 84, 661-681.	1.6	17
93	Muscle bioenergetics of two emblematic Mediterranean fish species: Sardina pilchardus and Sparus aurata. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2019, 235, 174-179.	1.8	17
94	Reflex bradycardia does not influence oxygen consumption during hypoxia in the European eel (Anguilla anguilla). Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2010, 180, 495-502.	1.5	16
95	Mechanisms of protein degradation in mantle muscle and proposed gill remodeling in starvedSepia officinalis. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2012, 303, R427-R437.	1.8	16
96	Cardiovascular responses to hypoxia in the Adriatic sturgeon (Acipenser naccarii). Journal of Applied Ichthyology, 1999, 15, 67-72.	0.7	15
97	Cardioventilatory responses to hypoxia and NaCN in the neotenous axolotl. Respiration Physiology, 1996, 106, 255-262.	2.7	13
98	Effects of water viscosity upon ventilation and metabolism of a flatfish, the common sole Solea solea (L.). Marine Biology, 2007, 152, 803-814.	1.5	12
99	Aggression supersedes individual oxygen demand to drive group airâ€breathing in a social catfish. Journal of Animal Ecology, 2018, 87, 223-234.	2.8	12
100	Interactive effects of mercury exposure and hypoxia on ECG patterns in two Neotropical freshwater fish species: MatrinxÃ£, Brycon amazonicus and traÃra, Hoplias malabaricus. Ecotoxicology, 2020, 29, 375-388.	2.4	12
101	Adrenergic receptors, Na + /H + exchange and volume regulation in lungfish erythrocytes. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2002, 172, 87-93.	1.5	11
102	Locomotion in Primitive Fishes. Fish Physiology, 2007, , 319-380.	0.8	11
103	Airâ€breathing fishes. Journal of Fish Biology, 2014, 84, 547-553.	1.6	11
104	Oxygen uptake, heart rate and activities of locomotor muscles during a critical swimming speed protocol in the gilthead sea bream Sparus aurata. Journal of Fish Biology, 2021, 98, 886-890.	1.6	11
105	The role of the autonomic nervous system in control of cardiac and air-breathing responses to sustained aerobic exercise in the African sharptooth catfish Clarias gariepinus. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2017, 203, 273-280.	1.8	9
106	Effects of Plasma Total Ammonia Content and pH on Urea Excretion in Nile Tilapia. Physiological and Biochemical Zoology, 1999, 72, 116-125.	1.5	8
107	Identifying adverse outcome pathways (AOP) for Amsterdam city fish by integrated field monitoring. Environmental Toxicology and Pharmacology, 2020, 74, 103301.	4.0	7
108	Variations in isotope incorporation rates and trophic discrimination factors of carbon and nitrogen stable isotopes in scales from three European sea bass (Dicentrarchus labrax) populations. Journal of Experimental Marine Biology and Ecology, 2020, 533, 151468.	1.5	7

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109	Cardiac and behavioural responses to hypoxia and warming in free-swimming gilthead seabream, Sparus aurata. Journal of Experimental Biology, 2021, 224, .	1.7	7
110	Candidate gene variation in gilthead sea bream reveals complex spatiotemporal selection patterns between marine and lagoon habitats. Marine Ecology - Progress Series, 2016, 558, 115-127.	1.9	7
111	Anion exchange in the giant erythrocytes of African lungfish. Journal of Fish Biology, 2003, 62, 1044-1052.	1.6	6
112	Effects of oleic acid on the high threshold barium current in seabass Dicentrarchus labrax ventricular myocytes. Journal of Experimental Biology, 2006, 209, 4033-4039.	1.7	6
113	Physiological determinants of individual variation in sensitivity to an organophosphate pesticide in Nile tilapia Oreochromis niloticus. Aquatic Toxicology, 2017, 189, 108-114.	4.0	6
114	An investigation of links between metabolic rate and feed efficiency in European sea bass Dicentrarchus labrax. Journal of Animal Science, 2021, 99, .	0.5	5
115	Settleable atmospheric particulate matter induces stress and affects the oxygen-carrying capacity and innate immunity in Nile tilapia (Oreochromis niloticus). Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2022, 257, 109330.	2.6	5
116	Social dynamics obscure the effect of temperature on air breathing in Corydoras catfish. Journal of Experimental Biology, 2020, 223, .	1.7	4
117	Is starvation a cause of overmortality of the Mediterranean sardine?. Marine Environmental Research, 2021, 170, 105441.	2.5	3
118	Use of complex physiological traits as ecotoxicological biomarkers in tropical freshwater fishes. Journal of Experimental Zoology Part A: Ecological and Integrative Physiology, 2021, 335, 745-760.	1.9	3
119	Correlations between aerobic and anaerobic performance in individual European sea bass. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2009, 153, S99-S100.	1.8	0
120	Effects of stocking density on the energetics and welfare of rainbow trout. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2009, 153, S140.	1.8	0
121	Swim more, weigh less: Linking physiological energetic and behavioural ecology in individual European seabass. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2009, 153, S146-S147.	1.8	0
122	Noisy waters. Journal of Fish Biology, 2019, 94, 691-691.	1.6	0