Graham R Scott

List of Publications by Year
in descending order

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Version: 2024-02-01

118 papers	5,933 citations	81900 39 h-index	82547 72 g-index
125 all docs	125 docs citations	125 times ranked	4796 citing authors

#	Article	IF	Citations
1	Genetic variation in haemoglobin is associated with evolved changes in breathing in high-altitude deer mice. Journal of Experimental Biology, 2022, 225, .	1.7	6
2	Adrenergic control of the cardiovascular system in deer mice native to high altitude. Current Research in Physiology, 2022, 5, 83-92.	1.7	5
3	Temperature modulates the impacts of wastewater exposure on the physiology and behaviour of fathead minnow. Chemosphere, 2022, 294, 133738.	8.2	2
4	Adaptive increases in respiratory capacity and O ₂ affinity of subsarcolemmal mitochondria from skeletal muscle of highâ€altitude deer mice. FASEB Journal, 2022, 36, .	0.5	5
5	Genetic variation in HIFâ€2Î± attenuates ventilatory sensitivity and carotid body growth in chronic hypoxia in highâ€altitude deer mice. Journal of Physiology, 2022, 600, 4207-4225.	2.9	5
6	Life-long exposure to hypoxia affects metabolism and respiratory physiology across life stages in high-altitude deer mice (Peromyscus maniculatus). Journal of Experimental Biology, 2021, 224, .	1.7	8
7	Municipal wastewater as an ecological trap: Effects on fish communities across seasons. Science of the Total Environment, 2021, 759, 143430.	8.0	22
8	Phenotypic plasticity, genetic assimilation, and genetic compensation in hypoxia adaptation of high-altitude vertebrates. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2021, 253, 110865.	1.8	24
9	Flight muscle and heart phenotypes in the high-flying ruddy shelduck. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2021, 191, 563-573.	1.5	1
10	Evolution and developmental plasticity of lung structure in high-altitude deer mice. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2021, 191, 385-396.	1.5	14
11	Pulmonary hypertension is attenuated and ventilation-perfusion matching is maintained during chronic hypoxia in deer mice native to high altitude. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2021, 320, R800-R811.	1.8	7
12	Fish living near two wastewater treatment plants have unaltered thermal tolerance but show changes in organ and tissue traits. Journal of Great Lakes Research, 2021, 47, 522-533.	1.9	15
13	The adaptive benefit of evolved increases in hemoglobin-O2 affinity is contingent on tissue O2 diffusing capacity in high-altitude deer mice. BMC Biology, 2021, 19, 128.	3.8	13
14	Astrocyte-mediated disruption of ROS homeostasis in Fragile X mouse model. Neurochemistry International, 2021, 146, 105036.	3.8	10
15	Physiological insight into the evolution of complex phenotypes: aerobic performance and the O2 transport pathway of vertebrates. Journal of Experimental Biology, 2021, 224, .	1.7	9
16	Distinct Mechanisms Underlie Developmental Plasticity and Adult Acclimation of Thermogenic Capacity in High-Altitude Deer Mice. Frontiers in Physiology, 2021, 12, 718163.	2.8	6
17	Exposure to wastewater effluent disrupts hypoxia responses in killifish (Fundulus heteroclitus). Environmental Pollution, 2021, 284, 117373.	7.5	8
18	Choosing source populations for conservation reintroductions: lessons from variation in thermal tolerance among populations of the imperilled redside dace¹. Canadian Journal of Fisheries and Aquatic Sciences, 2021, 78, 1347-1355.	1.4	9

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19	Commentary: Hierarchical reductionism approach to understanding adaptive variation in animal performance. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2021, 256, 110636.	1.6	3
20	Rapid and reversible modulation of blood haemoglobin content during diel cycles of hypoxia in killifish (Fundulus heteroclitus). Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2021, 261, 111054.	1.8	6
21	Parental Males of the Plainfin Midshipman Are Physiologically Resilient to the Challenges of the Intertidal Zone. Physiological and Biochemical Zoology, 2020, 93, 111-128.	1.5	7
22	Thermal tolerance depends on season, age and body condition in imperilled redside dace Clinostomus elongatus. , 2020, 8, coaa062.		40
23	Chronic cold exposure induces mitochondrial plasticity in deer mice native to high altitudes. Journal of Physiology, 2020, 598, 5411-5426.	2.9	28
24	Coordinated changes across the O 2 transport pathway underlie adaptive increases in thermogenic capacity in high-altitude deer mice. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20192750.	2.6	36
25	Hypoxia acclimation alters reactive oxygen species homeostasis and oxidative status in estuarine killifish (Fundulus heteroclitus). Journal of Experimental Biology, 2020, 223, .	1.7	11
26	Life history predicts flight muscle phenotype and function in birds. Journal of Animal Ecology, 2020, 89, 1262-1276.	2.8	14
27	Cardiovascular responses to progressive hypoxia in ducks native to high altitude in the Andes. Journal of Experimental Biology, 2020, 223, .	1.7	11
28	Ontogenesis of evolved changes in respiratory physiology in deer mice native to high altitude. Journal of Experimental Biology, 2020, 223, .	1.7	17
29	Interspecific variation in hypoxia tolerance and hypoxia acclimation responses in killifish from the family Fundulidae. Journal of Experimental Biology, 2020, 223, .	1.7	13
30	Convergent changes in muscle metabolism depend on duration of high-altitude ancestry across Andean waterfowl. ELife, 2020, 9, .	6.0	15
31	Metabolic implications of exposure to wastewater effluent in bluegill sunfish. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2019, 224, 108562.	2.6	20
32	Evolution of physiological performance capacities and environmental adaptation: insights from high-elevation deer mice (Peromyscus maniculatus). Journal of Mammalogy, 2019, 100, 910-922.	1.3	51
33	Municipal wastewater effluent affects fish communities: A multi-year study involving two wastewater treatment plants. Environmental Pollution, 2019, 252, 1730-1741.	7.5	35
34	Regulation of catecholamine release from the adrenal medulla is altered in deer mice (Peromyscus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf Comparative Physiology, 2019, 317, R407-R417.	1.8	12
35	Characterizing the influence of chronic hypobaric hypoxia on diaphragmatic myofilament contractile function and phosphorylation in high-altitude deer mice and low-altitude white-footed mice. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2019, 189, 489-499.	1.5	0
36	Physiological and genomic evidence that selection on the transcription factor Epas1 has altered cardiovascular function in high-altitude deer mice. PLoS Genetics, 2019, 15, e1008420.	3.5	52

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37	Life Ascending: Mechanism and Process in Physiological Adaptation to High-Altitude Hypoxia. Annual Review of Ecology, Evolution, and Systematics, 2019, 50, 503-526.	8.3	74
38	Nesting on high: reproductive and physiological consequences of breeding across an intertidal gradient. Evolutionary Ecology, 2019, 33, 21-36.	1.2	11
39	Control of breathing and respiratory gas exchange in ducks native to high altitude in the Andes. Journal of Experimental Biology, 2019, 222, .	1.7	11
40	Tackling the Tibetan Plateau in a down suit: insights into thermoregulation by bar-headed geese during migration. Journal of Experimental Biology, 2019, 222, .	1.7	13
41	Proximity to wastewater effluent alters behaviour in bluegill sunfish (Lepomis machrochirus). Behaviour, 2019, 156, 1495-1517.	0.8	4
42	Evolved Mechanisms of Aerobic Performance and Hypoxia Resistance in High-Altitude Natives. Annual Review of Physiology, 2019, 81, 561-583.	13.1	67
43	Validation of a Pulse Oximetry System for High-Altitude Waterfowl by Examining the Hypoxia Responses of the Andean Goose (Chloephaga melanoptera). Physiological and Biochemical Zoology, 2018, 91, 859-867.	1.5	7
44	Effects of chronic hypoxia on diaphragm function in deer mice native to high altitude. Acta Physiologica, 2018, 223, e13030.	3.8	37
45	Effects of hypoxia at different life stages on locomotory muscle phenotype in deer mice native to high altitudes. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2018, 224, 98-104.	1.6	20
46	Metabolic Costs of Exposure to Wastewater Effluent Lead to Compensatory Adjustments in Respiratory Physiology in Bluegill Sunfish. Environmental Science & Technology, 2018, 52, 801-811.	10.0	40
47	The Preference for Social Affiliation Renders Fish Willing to Accept Lower O2 Levels. Physiological and Biochemical Zoology, 2018, 91, 716-724.	1.5	8
48	Distinct metabolic adjustments arise from acclimation to constant hypoxia and intermittent hypoxia in estuarine killifish (Fundulus heteroclitus). Journal of Experimental Biology, 2018, 221, .	1.7	28
49	Maladaptive phenotypic plasticity in cardiac muscle growth is suppressed in highâ€altitude deer mice. Evolution; International Journal of Organic Evolution, 2018, 72, 2712-2727.	2.3	55
50	Evolved changes in breathing and CO2 sensitivity in deer mice native to high altitudes. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2018, 315, R1027-R1037.	1.8	16
51	The Mitochondrial Contribution to Animal Performance, Adaptation, and Life-History Variation. Integrative and Comparative Biology, 2018, 58, 480-485.	2.0	39
52	The Mitochondrial Basis for Adaptive Variation in Aerobic Performance in High-Altitude Deer Mice. Integrative and Comparative Biology, 2018, 58, 506-518.	2.0	33
53	In situ exposure to wastewater effluent reduces survival but has little effect on the behaviour or physiology of an invasive Great Lakes fish. Aquatic Toxicology, 2017, 184, 37-48.	4.0	21
54	Relationship between oxidative stress and brain swelling in goldfish (Carassius auratus) exposed to high environmental ammonia. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2017, 312, R114-R124.	1.8	26

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55	Evolved changes in the intracellular distribution and physiology of muscle mitochondria in highâ€altitude native deer mice. Journal of Physiology, 2017, 595, 4785-4801.	2.9	79
56	Hybridization increases mitochondrial production of reactive oxygen species in sunfish. Evolution; International Journal of Organic Evolution, 2017, 71, 1643-1652.	2.3	27
57	Flying High: The Unique Physiology of Birds that Fly at High Altitudes. , 2017, , 113-128.		6
58	Acclimation to hypoxia increases carbohydrate use during exercise in high-altitude deer mice. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2017, 312, R400-R411.	1.8	43
59	Respiratory mechanics of eleven avian species resident at high and low altitude. Journal of Experimental Biology, 2017, 220, 1079-1089.	1.7	23
60	Circulatory mechanisms underlying adaptive increases in thermogenic capacity in high-altitude deer mice. Journal of Experimental Biology, 2017, 220, 3616-3620.	1.7	64
61	Divergent respiratory and cardiovascular responses to hypoxia in bar-headed geese and Andean birds. Journal of Experimental Biology, 2017, 220, 4186-4194.	1.7	34
62	Control of breathing and ventilatory acclimatization to hypoxia in deer mice native to high altitudes. Acta Physiologica, 2017, 221, 266-282.	3.8	59
63	Ventilatory acclimatization to hypoxia in mice: Methodological considerations. Respiratory Physiology and Neurobiology, 2017, 235, 95-103.	1.6	26
64	Air breathing and aquatic gas exchange during hypoxia in armoured catfish. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2017, 187, 117-133.	1.5	27
65	Do Bar-Headed Geese Train for High Altitude Flights?. Integrative and Comparative Biology, 2017, 57, 240-251.	2.0	8
66	Highâ€altitude Adaptation and Hypoxia Signaling in Deer Mice. FASEB Journal, 2017, 31, 1075.2.	0.5	0
67	Interspecific and environment-induced variation in hypoxia tolerance in sunfish. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2016, 198, 59-71.	1.8	27
68	Amphibious fish jump better on land after acclimation to a terrestrial environment. Journal of Experimental Biology, 2016, 219, 3204-3207.	1.7	20
69	Mitochondrial physiology in the skeletal and cardiac muscles is altered in torrent ducks, Merganetta armata, from high altitudes in the Andes. Journal of Experimental Biology, 2016, 219, 3719-3728.	1.7	24
70	Mitochondrial physiology and reactive oxygen species production are altered by hypoxia acclimation in killifish (Fundulus heteroclitus). Journal of Experimental Biology, 2016, 219, 1130-8.	1.7	52
71	Biochemical correlates of aggressive behavior in the <scp>S</scp>iamese fighting fish. Journal of Zoology, 2015, 297, 99-107.	1.7	13
72	The roller coaster flight strategy of bar-headed geese conserves energy during Himalayan migrations. Science, 2015, 347, 250-254.	12.6	165

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73	High-altitude ancestry and hypoxia acclimation have distinct effects on exercise capacity and muscle phenotype in deer mice. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2015, 308, R779-R791.	1.8	101
74	Distinct physiological strategies are used to cope with constant hypoxia and intermittent hypoxia in killifish (Fundulus heteroclitus). Journal of Experimental Biology, 2015, 218, 1198-211.	1.7	80
75	How Bar-Headed Geese Fly Over the Himalayas. Physiology, 2015, 30, 107-115.	3.1	104
76	Adaptive Modifications of Muscle Phenotype in High-Altitude Deer Mice Are Associated with Evolved Changes in Gene Regulation. Molecular Biology and Evolution, 2015, 32, 1962-1976.	8.9	105
77	Early insights into the evolution of respiratory and cardiovascular physiology in vertebrates. Journal of Experimental Biology, 2015, 218, 2818-2820.	1.7	2
78	Physiological tradeoffs may underlie the evolution of hypoxia tolerance and exercise performance in sunfish (Centrarchidae). Journal of Experimental Biology, 2015, 218, 3264-75.	1.7	37
79	Control of breathing and the circulation in high-altitude mammals and birds. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2015, 186, 66-74.	1.8	64
80	Control of Breathing and Adaptation to Highâ€altitude Hypoxia in Deer Mice (Peromyscus maniculatus). FASEB Journal, 2015, 29, 686.4.	0.5	0
81	Physiological Tradeoffs Underlie the Evolution of Hypoxia Tolerance and Exercise Performance in Fish. FASEB Journal, 2015, 29, 982.4.	0.5	0
82	Temperature during embryonic development has persistent effects on metabolic enzymes in the muscle of zebrafish. Journal of Experimental Biology, 2014, 217, 1370-80.	1.7	84
83	Maximum Running Speed of Captive Bar-Headed Geese Is Unaffected by Severe Hypoxia. PLoS ONE, 2014, 9, e94015.	2.5	30
84	Interactions between hypoxia tolerance and food deprivation in Amazonian oscars, Astronotus ocellatus (Agassiz). Journal of Experimental Biology, 2013, 216, 4590-600.	1.7	48
85	Evolution of salinity tolerance from transcriptome to physiological system. Molecular Ecology, 2013, 22, 3656-3658.	3.9	7
86	Temperature during embryonic development has persistent effects on thermal acclimation capacity in zebrafish. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14247-14252.	7.1	263
87	Embryonic temperature produces persistent effects on the capacity for thermal acclimation in adult zebrafish. FASEB Journal, 2012, 26, 1072.5.	0.5	0
88	Elevated performance: the unique physiology of birds that fly at high altitudes. Journal of Experimental Biology, 2011, 214, 2455-2462.	1.7	128
89	Point: High Altitude is for the Birds!. Journal of Applied Physiology, 2011, 111, 1514-1515.	2.5	13
90	Last Word on Point:Counterpoint: High altitude is/is not for the birds!. Journal of Applied Physiology, 2011, 111, 1525-1525.	2.5	0

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91	Gill morphology and acute hypoxia: responses of mitochondria-rich, pavement, and mucous cells in the Amazonian oscar (Astronotus ocellatus) and the rainbow trout (Oncorhynchus) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Journal of Zoology, 2011, 89, 307-324.	1.6	56
92	The trans-Himalayan flights of bar-headed geese (Anser indicus). Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9516-9519.	7.1	135
93	Molecular Evolution of Cytochrome c Oxidase Underlies High-Altitude Adaptation in the Bar-Headed Goose. Molecular Biology and Evolution, 2011, 28, 351-363.	8.9	196
94	Phenotypic plasticity and genetic adaptation to high-altitude hypoxia in vertebrates. Journal of Experimental Biology, 2010, 213, 4125-4136.	1.7	347
95	Regulation of gill transcellular permeability and renal function during acute hypoxia in the Amazonian oscar (Astronotus ocellatus): new angles to the osmorespiratory compromise. Journal of Experimental Biology, 2009, 212, 1949-1964.	1.7	63
96	Control of respiration in flight muscle from the high-altitude bar-headed goose and low-altitude birds. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2009, 297, R1066-R1074.	1.8	33
97	The Role of Size in Synchronous Air Breathing ofHoplosternum littorale. Physiological and Biochemical Zoology, 2009, 82, 625-634.	1.5	20
98	Evolution of muscle phenotype for extreme high altitude flight in the bar-headed goose. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 3645-3653.	2.6	87
99	Oxygen dependence of mitochondrial respiration in high and low altitude birds. FASEB Journal, 2009, 23, 598.14.	0.5	0
100	Body temperature depression and peripheral heat loss accompany the metabolic and ventilatory responses to hypoxia in low and high altitude birds. Journal of Experimental Biology, 2008, 211, 1326-1335.	1.7	70
101	Respiratory responses to progressive hypoxia in the Amazonian oscar, Astronotus ocellatus. Respiratory Physiology and Neurobiology, 2008, 162, 109-116.	1.6	59
102	Have wing morphology or flight kinematics evolved for extreme high altitude migration in the bar-headed goose?. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2008, 148, 324-331.	2.6	21
103	SIMPLE STEPS TO BUILDING A LUNG. Journal of Experimental Biology, 2008, 211, v-vi.	1.7	0
104	Physiological and molecular mechanisms of osmoregulatory plasticity in killifish after seawater transfer. Journal of Experimental Biology, 2008, 211, 2450-2459.	1.7	85
105	Control of mitochondrial respiration in flight muscle of barâ€headed geese. FASEB Journal, 2008, 22, 757.8.	0.5	0
106	Rapid regulation of Na+ fluxes and ammonia excretion in response to acute environmental hypoxia in the Amazonian oscar, Astronotus ocellatus. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2007, 292, R2048-R2058.	1.8	52
107	Control of breathing and adaptation to high altitude in the bar-headed goose. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2007, 293, R379-R391.	1.8	87
108	Ventilatory roll off during sustained hypercapnia is gender specific in pekin ducks. Respiratory Physiology and Neurobiology, 2007, 156, 47-60.	1.6	14

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109	Flying high: A theoretical analysis of the factors limiting exercise performance in birds at altitude. Respiratory Physiology and Neurobiology, 2006, 154, 284-301.	1.6	88
110	Plasticity of osmoregulatory function in the killifish intestine:drinking rates, salt and water transport, and gene expression after freshwater transfer. Journal of Experimental Biology, 2006, 209, 4040-4050.	1.7	71
111	Tribute to R. G. Boutilier: The effect of size on the physiological and behavioural responses of oscar, Astronotus ocellatus, to hypoxia. Journal of Experimental Biology, 2006, 209, 1197-1205.	1.7	90
112	Intraspecific variation in gene expression after seawater transfer in gills of the euryhaline killifish Fundulus heteroclitus. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2005, 141, 176-182.	1.8	58
113	Effects of spironolactone and RU486 on gene expression and cell proliferation after freshwater transfer in the euryhaline killifish. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2005, 175, 499-510.	1.5	44
114	Gene expression after freshwater transfer in gills and opercular epithelia of killifish: insight into divergent mechanisms of ion transport. Journal of Experimental Biology, 2005, 208, 2719-2729.	1.7	120
115	Changes in gene expression in gills of the euryhaline killifishFundulus heteroclitusafter abrupt salinity transfer. American Journal of Physiology - Cell Physiology, 2004, 287, C300-C309.	4.6	207
116	Intraspecific divergence of ionoregulatory physiology in the euryhaline teleost Fundulus heteroclitus: possible mechanisms of freshwater adaptation. Journal of Experimental Biology, 2004, 207, 3399-3410.	1.7	111
117	The effects of environmental pollutants on complex fish behaviour: integrating behavioural and physiological indicators of toxicity. Aquatic Toxicology, 2004, 68, 369-392.	4.0	834
118	Cadmium disrupts behavioural and physiological responses to alarm substance in juvenile rainbow trout (Oncorhynchus mykiss). Journal of Experimental Biology, 2003, 206, 1779-1790.	1.7	169