Peter B Frappell

List of Publications by Year
in descending order

111 papers	3,668 citations	126907 33 h-index	149698 56 g-index
111 all docs	111 docs citations	111 times ranked	3378 citing authors

#	Article	IF	Citations
1	Siah2 Regulates Stability of Prolyl-Hydroxylases, Controls HIF1Î± Abundance, and Modulates Physiological Responses to Hypoxia. Cell, 2004, 117, 941-952.	28.9	381
2	The roller coaster flight strategy of bar-headed geese conserves energy during Himalayan migrations. Science, 2015, 347, 250-254.	12.6	165
3	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
4	Estimating energy expenditure of animals using the accelerometry technique: activity, inactivity and comparison with the heart-rate technique. Journal of Experimental Biology, 2009, 212, 471-482.	1.7	123
5	Simultaneous biologging of heart rate and acceleration, and their relationships with energy expenditure in free-swimming sockeye salmon (Oncorhynchus nerka). Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2010, 180, 673-684.	1.5	116
6	Accelerometry to Estimate Energy Expenditure during Activity: Best Practice with Data Loggers. Physiological and Biochemical Zoology, 2009, 82, 396-404.	1.5	115
7	Metabolic cold adaptation in fishes occurs at the level of whole animal, mitochondria and enzyme. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 1740-1747.	2.6	112
8	Birth weight and altitude: A study in Peruvian communities. Journal of Pediatrics, 2000, 136, 324-329.	1.8	108
9	How Bar-Headed Geese Fly Over the Himalayas. Physiology, 2015, 30, 107-115.	3.1	104
10	Marsupial uncoupling protein 1 sheds light on the evolution of mammalian nonshivering thermogenesis. Physiological Genomics, 2008, 32, 161-169.	2.3	76
11	The paradox of extreme high-altitude migration in bar-headed geeseAnser indicus. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20122114.	2.6	75
12	Scaling of Respiratory Variables and the Breathing Pattern in Birds: An Allometric and Phylogenetic Approach. Physiological and Biochemical Zoology, 2001, 74, 75-89.	1.5	71
13	Ventilatory Responses to Changes in Temperature in Mammals and Other Vertebrates. Annual Review of Physiology, 2000, 62, 847-874.	13.1	68
14	Breathing through skin in a newborn mammal. Nature, 1999, 397, 660-660.	27.8	67
15	Physiological Responses of Free-Swimming Adult Coho Salmon to Simulated Predator and Fisheries Encounters. Physiological and Biochemical Zoology, 2010, 83, 973-983.	1.5	61
16	Minimal Metabolic Rate, What It Is, Its Usefulness, and Its Relationship to the Evolution of Endothermy: A Brief Synopsis. Physiological and Biochemical Zoology, 2004, 77, 865-868.	1.5	58
17	Factorial Aerobic Scope Is Independent of Temperature and Primarily Modulated by Heart Rate in Exercising Murray Cod (Maccullochella peelii peelii). Physiological and Biochemical Zoology, 2005, 78, 347-355.	1.5	58
18	On the barometric method for measurements of ventilation, and its use in small animals. Canadian Journal of Physiology and Pharmacology, 1998, 76, 937-944.	1.4	58

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19	Understanding respirometry chambers: What goes in must come out. Journal of Theoretical Biology, 1989, 138, 479-494.	1.7	55
20	Ventilatory and Metabolic Responses to Acute Hyperoxia in Newborns. The American Review of Respiratory Disease, 1992, 146, 11-15.	2.9	55
21	Metabolism during normoxia, hypoxia and recovery in the newborn kitten. Respiration Physiology, 1991, 86, 115-124.	2.7	53
22	Respiratory function in a newborn marsupial with skin gas exchange. Respiration Physiology, 2000, 120, 35-45.	2.7	52
23	Moving with the beat: heart rate and visceral temperature of free-swimming and feeding bluefin tuna. Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 2841-2850.	2.6	43
24	Associations between Resting, Activity, and Daily Metabolic Rate in Free-Living Endotherms: No Universal Rule in Birds and Mammals. Physiological and Biochemical Zoology, 2016, 89, 251-261.	1.5	41
25	Oxygen transfer during aerobic exercise in a varanid lizardVaranus mertensiis limited by the circulation. Journal of Experimental Biology, 2002, 205, 2725-2736.	1.7	41
26	Sex differences in circulatory oxygen transport parameters of sockeye salmon (Oncorhynchus nerka) on the spawning ground. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2009, 179, 663-671.	1.5	39
27	Hamsters vs. rats: metabolic and ventilatory response to development in chronic hypoxia. Journal of Applied Physiology, 1994, 77, 2748-2752.	2.5	37
28	The relationship between heart rate and rate of oxygen consumption in Galapagos marine iguanas (Amblyrhynchus cristatus)at two different temperatures. Journal of Experimental Biology, 2002, 205, 1917-1924.	1.7	37
29	An information-theoretic approach to evaluating the size and temperature dependence of metabolic rate. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 3616-3621.	2.6	36
30	Temperature effects on ventilation and metabolism in the lizard, Ctenophorus nuchalis. Respiration Physiology, 1991, 86, 257-270.	2.7	35
31	Response to Cooling Temperature in Infants Born at an Altitude of 4,330 Meters. American Journal of Respiratory and Critical Care Medicine, 1998, 158, 1751-1756.	5.6	35
32	Changes in metabolic rates and blood respiratory characteristics during pouch development of a marsupial, Macropus eugenii. Respiration Physiology, 1988, 72, 219-228.	2.7	34
33	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
34	The Influence of Haemoglobin on Behavioural Thermoregulation and Oxygen Consumption inDaphnia carinata. Physiological and Biochemical Zoology, 2000, 73, 153-160.	1.5	33
35	Development of mechanics and pulmonary reflexes. Respiratory Physiology and Neurobiology, 2005, 149, 143-154.	1.6	33
36	Development of the respiratory system in marsupials. Respiratory Physiology and Neurobiology, 2006, 154, 252-267.	1.6	33

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37	Metabolism during normoxia, hyperoxia, and recovery in newborn rats. Canadian Journal of Physiology and Pharmacology, 1992, 70, 408-411.	1.4	31
38	Phylogenetic differences of mammalian basal metabolic rate are not explained by mitochondrial basal proton leak. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 185-193.	2.6	30
39	Maximum Running Speed of Captive Bar-Headed Geese Is Unaffected by Severe Hypoxia. PLoS ONE, 2014, 9, e94015.	2.5	30
40	Scaling of respiratory variables and the breathing pattern in adult marsupials. Respiration Physiology, 1995, 100, 83-90.	2.7	29
41	Factors influencing the prediction of metabolic rate in a reptile. Functional Ecology, 2006, 20, 105-113.	3.6	28
42	Energetics of terrestrial locomotion of the platypus Ornithorhynchus anatinus. Journal of Experimental Biology, 2001, 204, 797-803.	1.7	28
43	Ventilatory, cardiovascular and metabolic responses to hypoxia and hypercapnia in the armadillo. Respiration Physiology, 1998, 113, 101-109.	2.7	27
44	The relationship between heart rate and rate of oxygen consumption in Galapagos marine iguanas (Amblyrhynchus cristatus) at two different temperatures. Journal of Experimental Biology, 2002, 205, 1917-24.	1.7	27
45	Absence of adaptive nonshivering thermogenesis in a marsupial, the fat-tailed dunnart (Sminthopsis) Tj ETQq1 1 0.784314 rgBT /Over Physiology, 2012, 182, 393-401.	1.5	26
46	Measurements of air ventilation in small vertebrates. Respiratory Physiology and Neurobiology, 2013, 186, 197-205.	1.6	26
47	Ventilation and Oxygen Consumption in Agamid Lizards. Physiological Zoology, 1991, 64, 985-1001.	1.5	25
48	Mechanics of the respiratory system in the newborn tammar wallaby. Journal of Experimental Biology, 2002, 205, 533-538.	1.7	25
49	Oxygen transfer during aerobic exercise in a varanid lizard Varanus mertensi is limited by the circulation. Journal of Experimental Biology, 2002, 205, 2725-36.	1.7	24
50	Predicting the rate of oxygen consumption from heart rate in barnacle geeseBranta leucopsis: effects of captivity and annual changes in body condition. Journal of Experimental Biology, 2009, 212, 2941-2948.	1.7	23
51	Respiratory mechanics of eleven avian species resident at high and low altitude. Journal of Experimental Biology, 2017, 220, 1079-1089.	1.7	23
52	Structural and Functional Development of the Respiratory System in a Newborn Marsupial with Cutaneous Gas Exchange. Physiological and Biochemical Zoology, 2011, 84, 634-649.	1.5	22
53	The accessory role of the diaphragmaticus muscle in lung ventilation in the estuarine crocodile Crocodylus porosus. Journal of Experimental Biology, 2012, 215, 845-852.	1.7	22
54	Respiratory mechanics in small newborn mammals. Respiration Physiology, 1989, 76, 25-36.	2.7	21

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55	The Effects of Environmental Temperature, Hypoxia, and Hypercapnia on the Breathing Pattern of Saltwater Crocodiles (Crocodylus porosus). Physiological Zoology, 1998, 71, 267-273.	1.5	21
56	Convection requirement is established by total metabolic rate in the newborn tammar wallaby. Respiration Physiology, 2001, 126, 221-231.	2.7	20
57	Ventilation and Metabolism in a Large Semifossorial Marsupial:The Effect of Graded Hypoxia and Hypercapnia. Physiological and Biochemical Zoology, 2002, 75, 77-82.	1.5	20
58	The respiratory system in varanid lizards: determinants of O2 transfer. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2002, 133, 239-258.	1.8	20
59	Does Incubation Temperature Fluctuation Influence Hatchling Phenotypes in Reptiles? A Test Using Parthenogenetic Geckos. Physiological and Biochemical Zoology, 2010, 83, 597-607.	1.5	19
60	An increase in minimum metabolic rate and not activity explains field metabolic rate changes in a breeding seabird. Journal of Experimental Biology, 2013, 216, 1726-35.	1.7	18
61	Developmental Hypoxia Has Negligible Effects on Long-Term Hypoxia Tolerance and Aerobic Metabolism of Atlantic Salmon (<i>Salmo salar</i>). Physiological and Biochemical Zoology, 2017, 90, 494-501.	1.5	18
62	Mechanics of the respiratory system in the newborn tammar wallaby. Journal of Experimental Biology, 2002, 205, 533-8.	1.7	18
63	Physiological Response to Feeding in Little Penguins. Physiological and Biochemical Zoology, 2006, 79, 1088-1097.	1.5	17
64	Ontogeny and allometry of metabolic rate and ventilation in the marsupial: Matching supply and demand from ectothermy to endothermy. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2008, 150, 181-188.	1.8	16
65	Impacts of â€œsupermoonâ€•events on the physiology of a wild bird. Ecology and Evolution, 2019, 9, 7974-7984.	1.9	16
66	Energetics of swimming by the platypus Ornithorhynchus anatinus: metabolic effort associated with rowing. Journal of Experimental Biology, 1997, 200, 2647-52.	1.7	16
67	Behavioral thermoregulation in obese and lean Zucker rats in a thermal gradient. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2001, 281, R1675-R1680.	1.8	15
68	How stiff is the armadillo?. Respiration Physiology, 1998, 113, 111-122.	2.7	14
69	Digestive state influences the heart rate hysteresis and rates of heat exchange in the varanid lizard Varanus rosenbergi. Journal of Experimental Biology, 2005, 208, 2269-2276.	1.7	13
70	Point: High Altitude is for the Birds!. Journal of Applied Physiology, 2011, 111, 1514-1515.	2.5	13
71	Experimental Biology 1997 Symposium on Neurobiology of Thermoregulation: Role of Stress: HYPOTHERMIA AND PHYSIOLOGICAL CONTROL: THE RESPIRATORY SYSTEM. Clinical and Experimental Pharmacology and Physiology, 1998, 25, 159-164.	1.9	12
72	Ventilation and metabolic rate in the platypus: insights into the evolution of the mammalian breathing pattern. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2003, 136, 943-955.	1.8	12

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73	Automated Non-invasive Video-Microscopy of Oyster Spat Heart Rate during Acute Temperature Change: Impact of Acclimation Temperature. Frontiers in Physiology, 2016, 7, 236.	2.8	12
74	Physiological effects of dissolved oxygen are stage-specific in incubating Atlantic salmon (Salmo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7 2019, 189, 109-120.	1.5	12
75	The effects of constant and cyclical hypoxia on the survival, growth and metabolic physiology of incubating Atlantic salmon (Salmo salar). Aquaculture, 2020, 527, 735449.	3.5	12
76	Novel method for conscious airway resistance and ventilation estimation in neonatal rodents using plethysmography and a mechanical lung. Respiratory Physiology and Neurobiology, 2014, 201, 75-83.	1.6	11
77	The maternal effect of differences in egg size influence metabolic rate and hypoxia induced hatching in Atlantic salmon eggs: implications for respiratory gas exchange across the egg capsule. Canadian Journal of Fisheries and Aquatic Sciences, 2016, 73, 1173-1181.	1.4	11
78	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
79	Cardiovascular responses to progressive hypoxia in ducks native to high altitude in the Andes. Journal of Experimental Biology, 2020, 223, .	1.7	11
80	Ventilatory and metabolic responses to hypoxia in the echidna, Tachyglossus aculeatus. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 1994, 267, R1510-R1515.	1.8	10
81	Oxygen transport at high altitudeâ€"An integrated perspective. Respiratory Physiology and Neurobiology, 2007, 158, 115-120.	1.6	10
82	Growth hormone transgenesis and polyploidy increase metabolic rate, alter the cardiorespiratory response and influence HSP expression to acute hypoxia in Atlantic salmon (Salmo salar) yolk-sac alevins. Journal of Experimental Biology, 2014, 217, 2268-76.	1.7	9
83	Improving the Precision and Accuracy for Estimating Energy Expenditure Using the Heart Rate Method. Physiological and Biochemical Zoology, 2007, 80, 551-555.	1.5	8
84	Do Bar-Headed Geese Train for High Altitude Flights?. Integrative and Comparative Biology, 2017, 57, 240-251.	2.0	8
85	Do implanted data-loggers affect the time spent at sea by Little Penguins (Eudyptula minor) during winter?. Emu, 2010, 110, 71-77.	0.6	7
86	Different strategies for convective O2 transport in high altitude birds: A graphical analysis. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2021, 253, 110871.	1.8	7
87	The influence of locomotion on air-sac pressures in little penguins. Journal of Experimental Biology, 2001, 204, 3581-6.	1.7	7
88	Hypothermia and hypoxia inhibit the Hering-BreÃ¼er reflex in the marsupial newborn. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2004, 286, R857-R864.	1.8	6
89	Central nitric oxide synthase inhibition restores behaviorally mediated lipopolysaccharide induced fever in near-term rats. Physiology and Behavior, 2008, 94, 630-634.	2.1	6
90	Respirometry: Correcting for Diffusion and Validating the Use of Plastic Multiwell Plates with Integrated Optodes. Physiological and Biochemical Zoology, 2013, 86, 588-592.	1.5	6

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91	Pregnancy limits lung function during exercise and depresses metabolic rate in the skink Tiliqua nigrolutea. Journal of Experimental Biology, 2015, 218, 931-939.	1.7	6
92	Phase Contrast Imaging Reveals Low Lung Volumes and Surface Areas in the Developing Marsupial. PLoS ONE, 2013, 8, e53805.	2.5	6
93	Phenotypic differences in terrestrial frog embryos: effect of water potential and phase. Journal of Experimental Biology, 2008, 211, 3800-3807.	1.7	5
94	Acid-base balance in the developing marsupial: from ectotherm to endotherm. Journal of Applied Physiology, 2014, 116, 1210-1219.	2.5	5
95	Fluctuations in oxygen influence facultative endothermy in bumblebees. Journal of Experimental Biology, 2014, 217, 3834-3842.	1.7	5
96	Acute but not chronic hyperoxia increases metabolic rate without altering the cardiorespiratory response in Atlantic salmon alevins. Aquaculture, 2019, 502, 189-195.	3.5	5
97	Do lizards breathe through their mouths while running?. Experimental Biology Online, 1999, 4, 1-46.	1.0	4
98	The ventilatory response to hypoxia and hypercapnia is absent in the neonatal fat-tailed dunnart. Journal of Experimental Biology, 2012, 215, 4242-7.	1.7	4
99	Respiratory characteristics of the tammar wallaby pouch young and functional limitations in a newborn with skin gas exchange. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2021, 191, 995-1006.	1.5	4
100	Passive body movement and gas exchange in the frilled lizard (Chlamydosaurus kingii) and goanna (Varanus gouldii).. Journal of Experimental Biology, 1998, 201, 2307-2311.	1.7	4
101	Prenatal nicotine exposure increases hyperventilation in Î±4-knock-out mice during mild asphyxia. Respiratory Physiology and Neurobiology, 2015, 208, 29-36.	1.6	3
102	Passive body movement and gas exchange in the frilled lizard (Chlamydosaurus kingii) and goanna (Varanus gouldii). Journal of Experimental Biology, 1998, 201, 2307-11.	1.7	3
103	Heart rate variability in 1-day-old infants born at 4330 m altitude. Clinical Science, 1999, 96, 147-153.	4.3	2
104	Î±4-Containing nicotinic receptors contribute to the effects of perinatal nicotine on ventilatory and metabolic responses of neonatal mice to ambient cooling. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2016, 311, R727-R734.	1.8	2
105	Aerobic and anaerobic movement energetics of hybrid and pure parental abalone. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2021, 191, 1111-1124.	1.5	2
106	Use beer to calibrate your CO2 analyser: celebrate!. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2021, 191, 979-982.	1.5	1
107	Characterizing the breathâ€toâ€breath hypercapnic ventilatory response in neonatal rats. FASEB Journal, 2008, 22, 955.9.	0.5	1
108	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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109	Conditional expression of central respiratory rhythm in developing fatâ€tailed dunnarts (Marsupialia:) Tj ETQq1 1 0.784314 rgBT /Overlo	0.5	0
110	Fluctuations in oxygen influences facultative endothermy in bumblebees. FASEB Journal, 2012, 26, 1071.4.	0.5	0
111	Video Microscopy Detection of Oyster Spat Heart Rate (HR): Acclimation temperature alters HR response to acute temperature change. FASEB Journal, 2013, 27, 714.9.	0.5	0