

Andreas Fahlman

List of Publications by Year in descending order

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Version: 2024-02-01

127
papers

3,277
citations

147566

31
h-index

205818

48
g-index

131
all docs

131
docs citations

131
times ranked

2382
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic body acceleration as a proxy to predict the cost of locomotion in bottlenose dolphins. <i>Journal of Experimental Biology</i> , 2022, 225, .	0.8	8
2	Lung function assessment in the Pacific walrus (<i>Odobenus rosmarus divergens</i>) while resting on land and submerged in water. <i>Journal of Experimental Biology</i> , 2021, 224, .	0.8	1
3	How Do Marine Mammals Manage and Usually Avoid Gas Emboli Formation and Gas Embolic Pathology? Critical Clues From Studies of Wild Dolphins. <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	20
4	Myoglobin Concentration and Oxygen Stores in Different Functional Muscle Groups from Three Small Cetacean Species. <i>Animals</i> , 2021, 11, 451.	1.0	4
5	The New Era of Physio-Logging and Their Grand Challenges. <i>Frontiers in Physiology</i> , 2021, 12, 669158.	1.3	13
6	RESPIRATORY CHANGES IN STRANDED BOTTLENOSE DOLPHINS (<i>TURSIOPS TRUNCATUS</i>). <i>Journal of Zoo and Wildlife Medicine</i> , 2021, 52, 49-56.	0.3	2
7	Activity of loggerhead turtles during the U-shaped dive: insights using angular velocity metrics. <i>Endangered Species Research</i> , 2021, 45, 1-12.	1.2	2
8	Scaling of heart rate with breathing frequency and body mass in cetaceans. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20200223.	1.8	15
9	What is physiologging? Introduction to the theme issue, part 2. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20210028.	1.8	4
10	Introduction to the theme issue: Measuring physiology in free-living animals. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20200210.	1.8	12
11	A Baseline Model For Estimating the Risk of Gas Embolism in Sea Turtles During Routine Dives. <i>Frontiers in Physiology</i> , 2021, 12, 678555.	1.3	4
12	Respiratory sinus arrhythmia and submersion bradycardia in bottlenose dolphins (<i>Tursiops</i>) <i>Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302</i>	0.8	9
13	An integrated comparative physiology and molecular approach pinpoints mediators of breath-hold capacity in dolphins. <i>Evolution, Medicine and Public Health</i> , 2021, 9, 420-430.	1.1	5
14	Subsurface swimming and stationary diving are metabolically cheap in adult Pacific walruses (<i>Odobenus rosmarus divergens</i>). <i>Journal of Experimental Biology</i> , 2021, 224, .	0.8	4
15	Near-Infrared Spectroscopy as a Tool for Marine Mammal Research and Care. <i>Frontiers in Physiology</i> , 2021, 12, 816701.	1.3	7
16	Whistling is metabolically cheap for communicating bottlenose dolphins (<i>Tursiops truncatus</i>). <i>Journal of Experimental Biology</i> , 2020, 223, .	0.8	15
17	Estimates for energy expenditure in free-living animals using acceleration proxies: A reappraisal. <i>Journal of Animal Ecology</i> , 2020, 89, 161-172.	1.3	148
18	Extreme diving in mammals: first estimates of behavioural aerobic dive limits in Cuvier's beaked whales. <i>Journal of Experimental Biology</i> , 2020, 223, .	0.8	53

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19	Cardiorespiratory coupling in cetaceans; a physiological strategy to improve gas exchange?. Journal of Experimental Biology, 2020, 223, .	0.8	17
20	Conditioned Variation in Heart Rate During Static Breath-Holds in the Bottlenose Dolphin (Tursiops truncatus). Frontiers in Ecology and Evolution, 2020, 11, 142.	1.3	22
21	Response to: The metabolic cost of whistling is low but measurable in dolphins. Journal of Experimental Biology, 2020, 223, .	0.8	2
22	Editorial: Ecology and Behaviour of Free-Ranging Animals Studied by Advanced Data-Logging and Tracking Techniques. Frontiers in Ecology and Evolution, 2020, 8, .	1.1	7
23	Hyperbaric tracheobronchial compression in cetaceans and pinnipeds. Journal of Experimental Biology, 2020, 223, .	0.8	8
24	An orientation sphere visualization for examining animal head movements. Ecology and Evolution, 2020, 10, 4291-4302.	0.8	9
25	Comparative Respiratory Physiology in Cetaceans. Frontiers in Physiology, 2020, 11, 142.	1.3	66
26	Improving estimates of diving lung volume in air-breathing marine vertebrates. Journal of Experimental Biology, 2020, 223, .	0.8	11
27	Behavioral Biomarkers for Animal Health: A Case Study Using Animal-Attached Technology on Loggerhead Turtles. Frontiers in Ecology and Evolution, 2020, 7, .	1.1	6
28	Pulmonary Function and Resting Metabolic Rates in California Sea Lions (Zalophus californianus) on Land and in Water. Aquatic Mammals, 2020, 46, 67-79.	0.4	11
29	Pulmonary function testing as a diagnostic tool to assess respiratory health in bottlenose dolphins Tursiops truncatus. Diseases of Aquatic Organisms, 2020, 138, 17-27.	0.5	6
30	Wearable multifunctional printed graphene sensors. Npj Flexible Electronics, 2019, 3, .	5.1	84
31	Re-evaluating the significance of the dive response during voluntary surface apneas in the bottlenose dolphin, Tursiops truncatus. Scientific Reports, 2019, 9, 8613.	1.6	22
32	Using Respiratory Sinus Arrhythmia to Estimate Inspired Tidal Volume in the Bottlenose Dolphin (Tursiops truncatus). Frontiers in Physiology, 2019, 10, 128.	1.3	17
33	Ventilation and gas exchange before and after voluntary static surface breath-holds in clinically healthy bottlenose dolphins, Tursiops truncatus. Journal of Experimental Biology, 2019, 222, .	0.8	23
34	Advances in research on the impacts of anti-submarine sonar on beaked whales. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20182533.	1.2	65
35	Diving Behavior and Fine-Scale Kinematics of Free-Ranging Risso's Dolphins Foraging in Shallow and Deep-Water Habitats. Frontiers in Ecology and Evolution, 2019, 7, .	1.1	19
36	Characterizing respiratory capacity in belugas (Delphinapterus leucas). Respiratory Physiology and Neurobiology, 2019, 260, 63-69.	0.7	13

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37	Implanted Nanosensors in Marine Organisms for Physiological Biologging: Design, Feasibility, and Species Variability. ACS Sensors, 2019, 4, 32-43.	4.0	36
38	Pulmonary ventilationâ€“perfusion mismatch: a novel hypothesis for how diving vertebrates may avoid the bends. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20180482.	1.2	42
39	Field energetics and lung function in wild bottlenose dolphins, <i>Tursiops truncatus</i> , in Sarasota Bay Florida. Royal Society Open Science, 2018, 5, 171280.	1.1	27
40	Swimming Energy Economy in Bottlenose Dolphins Under Variable Drag Loading. Frontiers in Marine Science, 2018, 5, .	1.2	15
41	Deciphering function of the pulmonary arterial sphincters in loggerhead sea turtles (<i>Caretta</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T 5	0.8	15
42	Impact of gas emboli and hyperbaric treatment on respiratory function of loggerhead sea turtles (<i>Caretta caretta</i>). , 2018, 6, cov074.		6
43	Modeling Tissue and Blood Gas Kinetics in Coastal and Offshore Common Bottlenose Dolphins, <i>Tursiops truncatus</i> . Frontiers in Physiology, 2018, 9, 838.	1.3	122
44	Resting Metabolic Rate and Lung Function in Wild Offshore Common Bottlenose Dolphins, <i>Tursiops truncatus</i> , Near Bermuda. Frontiers in Physiology, 2018, 9, 886.	1.3	17
45	Allometric scaling of decompression sickness risk in terrestrial mammals; cardiac output explains risk of decompression sickness. Scientific Reports, 2017, 7, 40918.	1.6	13
46	Respiratory function and mechanics in pinnipeds and cetaceans. Journal of Experimental Biology, 2017, 220, 1761-1773.	0.8	59
47	Defining risk variables causing gas embolism in loggerhead sea turtles (<i>Caretta caretta</i>) caught in trawls and gillnets. Scientific Reports, 2017, 7, 2739.	1.6	25
48	Response to â€“On the importance of understanding physiology when estimating energetics in cetaceansâ€™. Biology Open, 2017, 6, 307-308.	0.6	3
49	Respiratory Function in Voluntary Participating Patagonia Sea Lions (<i>Otaria flavescens</i>) in Sternal Recumbency. Frontiers in Physiology, 2016, 7, 528.	1.3	51
50	INTRAPERITONEAL DEXTROSE ADMINISTRATION AS AN ALTERNATIVE EMERGENCY TREATMENT FOR HYPOGLYCEMIC YEARLING CALIFORNIA SEA LIONS (<i>ZALOPHUS CALIFORNIANUS</i>). Journal of Zoo and Wildlife Medicine, 2016, 47, 76-82.	0.3	5
51	Dive, food, and exercise effects on blood microparticles in Steller sea lions (<i>Eumetopias</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T 5 Regulatory Integrative and Comparative Physiology, 2016, 310, R596-R601.	0.9	5
52	Updating a gas dynamics model using estimates for California sea lions (<i>Zalophus californianus</i>). Respiratory Physiology and Neurobiology, 2016, 234, 1-8.	0.7	13
53	Estimating energetics in cetaceans from respiratory frequency: why we need to understand physiology. Biology Open, 2016, 5, 436-442.	0.6	47
54	The degradation of proteins in pinniped skeletal muscle: viability of post-mortem tissue in physiological research. , 2015, 3, cov019.		2

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55	Lung mechanics and pulmonary function testing in cetaceans. <i>Journal of Experimental Biology</i> , 2015, 218, 2030-2038.	0.8	64
56	Phosphatidylcholine composition of pulmonary surfactant from terrestrial and marine diving mammals. <i>Respiratory Physiology and Neurobiology</i> , 2015, 211, 29-36.	0.7	11
57	Evaluating cardiac physiology through echocardiography in bottlenose dolphins: using stroke volume and cardiac output to estimate systolic left ventricular function during rest and following exercise. <i>Journal of Experimental Biology</i> , 2015, 218, 3604-10.	0.8	21
58	A comparative analysis of marine mammal tracheas. <i>Journal of Experimental Biology</i> , 2014, 217, 1154-66.	0.8	29
59	How man-made interference might cause gas bubble emboli in deep diving whales. <i>Frontiers in Physiology</i> , 2014, 5, 13.	1.3	33
60	Inflation and deflation pressure-volume loops in anesthetized pinnipeds confirms compliant chest and lungs. <i>Frontiers in Physiology</i> , 2014, 5, 433.	1.3	14
61	Ontogenetic changes in skeletal muscle fiber type, fiber diameter and myoglobin concentration in the Northern elephant seal (<i>Mirounga angustirostris</i>). <i>Frontiers in Physiology</i> , 2014, 5, 217.	1.3	13
62	Drag, but not buoyancy, affects swim speed in captive Steller sea lions. <i>Biology Open</i> , 2014, 3, 379-386.	0.6	12
63	Behavioral impacts of disentanglement of a right whale under sedation and the energetic cost of entanglement. <i>Marine Mammal Science</i> , 2014, 30, 282-307.	0.9	43
64	Bottlenose dolphins modify behavior to reduce metabolic effect of tag attachment. <i>Journal of Experimental Biology</i> , 2014, 217, 4229-4236.	0.8	63
65	Gas Bubble Disease in the Brain of a Living California Sea Lion (<i>Zalophus californianus</i>). <i>Frontiers in Physiology</i> , 2013, 4, 5.	1.3	10
66	Activity as a proxy to estimate metabolic rate and to partition the metabolic cost of diving vs. breathing in pre- and post-fasted Steller sea lions. <i>Aquatic Biology</i> , 2013, 18, 175-184.	0.5	33
67	Changes in dive behavior during naval sonar exposure in killer whales, long-finned pilot whales, and sperm whales. <i>Frontiers in Physiology</i> , 2012, 3, 400.	1.3	56
68	Estimated tissue and blood N ₂ levels and risk of decompression sickness in deep-, intermediate-, and shallow-diving toothed whales during exposure to naval sonar. <i>Frontiers in Physiology</i> , 2012, 3, 125.	1.3	37
69	The use of Diagnostic Imaging for Identifying Abnormal Gas Accumulations in Cetaceans and Pinnipeds. <i>Frontiers in Physiology</i> , 2012, 3, 181.	1.3	7
70	Bubbles in live-stranded dolphins. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2012, 279, 1396-1404.	1.2	31
71	Deadly diving? Physiological and behavioural management of decompression stress in diving mammals. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2012, 279, 1041-1050.	1.2	99
72	The physiological consequences of breath-hold diving in marine mammals: the Scholander legacy. <i>Frontiers in Physiology</i> , 2012, 3, 473.	1.3	3

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73	Static inflation and deflation pressure-volume curves from excised lungs of marine mammals. <i>Journal of Experimental Biology</i> , 2011, 214, 3822-3828.	0.8	47
74	The Genetic Component of the Forced Diving Bradycardia Response in Mammals. <i>Frontiers in Physiology</i> , 2011, 2, 63.	1.3	13
75	Hyperbaric computed tomographic measurement of lung compression in seals and dolphins. <i>Journal of Experimental Biology</i> , 2011, 214, 2390-2397.	0.8	53
76	Comparative High Pressure Biology. Phillipe Sebert, Editor.. <i>Integrative and Comparative Biology</i> , 2010, 50, 691-691.	0.9	1
77	Changes in the foraging dive behaviour and energetics of king penguins through summer and autumn: a month by month analysis. <i>Marine Ecology - Progress Series</i> , 2010, 401, 279-289.	0.9	13
78	Decompression sickness in breath-hold divers: A review. <i>Journal of Sports Sciences</i> , 2009, 27, 1519-1534.	1.0	24
79	Estimating the effect of lung collapse and pulmonary shunt on gas exchange during breath-hold diving: The Scholander and Kooyman legacy. <i>Respiratory Physiology and Neurobiology</i> , 2009, 165, 28-39.	0.7	83
80	Could beaked whales get the bends?. <i>Respiratory Physiology and Neurobiology</i> , 2009, 167, 235-246.	0.7	71
81	Fasting affects the surface and diving metabolic rates of Steller sea lions <i>Eumetopias jubatus</i> . <i>Aquatic Biology</i> , 2009, 8, 71-82.	0.5	10
82	Recovery from Swimming-Induced Hypothermia in King Penguins: Effects of Nutritional Condition. <i>Physiological and Biochemical Zoology</i> , 2008, 81, 434-441.	0.6	3
83	Tracheal compression delays alveolar collapse during deep diving in marine mammals. <i>Respiratory Physiology and Neurobiology</i> , 2008, 161, 298-305.	0.7	69
84	Behavioral and Physiological Significance of Minimum Resting Metabolic Rate in King Penguins. <i>Physiological and Biochemical Zoology</i> , 2008, 81, 74-86.	0.6	16
85	Modeling the Marine Resources Consumed in Raising a King Penguin Chick: An Energetics Approach. <i>Physiological and Biochemical Zoology</i> , 2008, 81, 856-867.	0.6	7
86	Metabolic costs of foraging and the management of O ₂ and CO ₂ stores in Steller sea lions. <i>Journal of Experimental Biology</i> , 2008, 211, 3573-3580.	0.8	73
87	Pharmacological Interventions to Decompression Sickness in Rats: Comparison of Five Agents. <i>Aviation, Space, and Environmental Medicine</i> , 2008, 79, 7-13.	0.6	18
88	The pressure to understand the mechanism of lung compression and its effect on lung function. <i>Journal of Applied Physiology</i> , 2008, 104, 907-908.	1.2	6
89	Activity and diving metabolism correlate in Steller sea lion <i>Eumetopias jubatus</i> . <i>Aquatic Biology</i> , 2008, 2, 75-84.	0.5	77
90	Buoyancy does not affect diving metabolism during shallow dives in Steller sea lions <i>Eumetopias jubatus</i> . <i>Aquatic Biology</i> , 2008, 3, 147-154.	0.5	21

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91	To what extent might N ₂ limit dive performance in king penguins?. <i>Journal of Experimental Biology</i> , 2007, 210, 3344-3355.	0.8	26
92	Changes in dive profiles as an indicator of feeding success in king and Adelie penguins. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2007, 54, 248-255.	0.6	105
93	How accurately can we estimate energetic costs in a marine top predator, the king penguin?. <i>Zoology</i> , 2007, 110, 81-92.	0.6	30
94	Laboratory studies in wildlife conservation: The case of the Steller sea lion. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2007, 146, S84.	0.8	0
95	Onshore energetics in penguins: Theory, estimation and ecological implications. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2007, 147, 1009-1014.	0.8	5
96	7.P2. King penguins modulate their behaviour such that energy costs of foraging dives do not increase as winter approaches. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2007, 148, S31.	0.8	0
97	Fine-scale analyses of diving energetics in king penguins <i>Aptenodytes patagonicus</i> : how behaviour affects costs of a foraging dive. <i>Marine Ecology - Progress Series</i> , 2007, 344, 299-309.	0.9	17
98	The influence of buoyancy on diving metabolism of Steller sea lions (<i>Eumetopias jubatus</i>). <i>FASEB Journal</i> , 2007, 21, A593.	0.2	0
99	Swimming versus gliding during dives to depth in Steller sea lions (<i>Eumetopias jubatus</i>). <i>FASEB Journal</i> , 2007, 21, A593.	0.2	0
100	Deep diving mammals: Dive behavior and circulatory adjustments contribute to bends avoidance. <i>Respiratory Physiology and Neurobiology</i> , 2006, 153, 66-77.	0.7	59
101	Accounting for body condition improves allometric estimates of resting metabolic rates in fasting king penguins, <i>Aptenodytes patagonicus</i> . <i>Polar Biology</i> , 2006, 29, 609-614.	0.5	14
102	Dehydration effects on the risk of severe decompression sickness in a swine model. <i>Aviation, Space, and Environmental Medicine</i> , 2006, 77, 102-6.	0.6	21
103	Nitrogen load in rats exposed to 8 ATA from 10-35 degrees C does not influence decompression sickness risk. <i>Aviation, Space, and Environmental Medicine</i> , 2006, 77, 795-800.	0.6	2
104	The acute hypoxic ventilatory response: Testing the adaptive significance in human populations. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2005, 140, 349-362.	0.8	8
105	Reversible anaesthesia of free-ranging lions (<i>Panthera leo</i>) in Zimbabwe. <i>Journal of the South African Veterinary Association</i> , 2005, 76, 187-192.	0.2	22
106	Metabolism and thermoregulation during fasting in king penguins, <i>Aptenodytes patagonicus</i> , in air and water. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2005, 289, R670-R679.	0.9	32
107	Effect of fasting on the V̇O ₂ -fh relationship in king penguins, <i>Aptenodytes patagonicus</i> . <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2004, 287, R870-R877.	0.9	33
108	Measurement reliability of highly variable physiological responses to experimentally-manipulated gas fractions. <i>Physiological Measurement</i> , 2004, 25, 1189-1197.	1.2	6

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109	Heart rate and energetics of free-ranging king penguins (<i>Aptenodytes patagonicus</i>). <i>Journal of Experimental Biology</i> , 2004, 207, 3917-3926.	0.8	72
110	Treatment of decompression sickness in swine with intravenous perfluorocarbon emulsion. <i>Aviation, Space, and Environmental Medicine</i> , 2004, 75, 301-5.	0.6	15
111	Probabilistic Modelling for Estimating Gas Kinetics and Decompression Sickness Risk in Pigs During H ₂ Biochemical Decompression. <i>Bulletin of Mathematical Biology</i> , 2003, 65, 747-766.	0.9	6
112	Patterns of respiration in diving penguins: is the last gasp an inspired tactic?. <i>Journal of Experimental Biology</i> , 2003, 206, 1751-1763.	0.8	47
113	Prophylactic high dose methylprednisolone fails to treat severe decompression sickness in swine. <i>Aviation, Space, and Environmental Medicine</i> , 2003, 74, 21-8.	0.6	7
114	A simple breathing circuit to maintain isocapnia during measurements of the hypoxic ventilatory response. <i>Respiratory Physiology and Neurobiology</i> , 2002, 133, 259-270.	0.7	10
115	Modulation of decompression sickness risk in pigs with caffeine during H ₂ biochemical decompression. <i>Journal of Applied Physiology</i> , 2002, 93, 1583-1589.	1.2	0
116	On the likelihood of decompression sickness during H ₂ biochemical decompression in pigs. <i>Journal of Applied Physiology</i> , 2001, 91, 2720-2729.	1.2	17
117	Increasing activity of H ₂ -metabolizing microbes lowers decompression sickness risk in pigs during H ₂ dives. <i>Journal of Applied Physiology</i> , 2001, 91, 2713-2719.	1.2	15
118	Decompression sickness risk reduced by native intestinal flora in pigs after H ₂ dives. <i>Undersea and Hyperbaric Medicine</i> , 2001, 28, 89-97.	0.1	6
119	Calorimetry and respirometry in guinea pigs in hydrox and heliox at 10â€“60Â°atm. <i>Pflugers Archiv European Journal of Physiology</i> , 2000, 440, 843-851.	1.3	3
120	Natural history of severe decompression sickness after rapid ascent from air saturation in a porcine model. <i>Journal of Applied Physiology</i> , 2000, 89, 791-798.	1.2	27
121	Gene Up-Regulation in Heart during Mammalian Hibernation. <i>Cryobiology</i> , 2000, 40, 332-342.	0.3	74
122	Structure studies of sulphur compounds by esca. <i>Chemical Physics Letters</i> , 1968, 1, 557-559.	1.2	21
123	New Approach to Structure Studies in Organic Chemistry. <i>Nature</i> , 1967, 213, 70-71.	13.7	23
124	Shifts in Electron Spectra of Nitrogen in Organic Molecules. <i>Nature</i> , 1967, 214, 481-482.	13.7	17
125	Electron spectroscopic evidence of the thiolulphonate structure of cystine S-dioxide. <i>Spectrochimica Acta Part A: Molecular Spectroscopy</i> , 1967, 23, 2015-2020.	0.1	16
126	Electron Spectroscopy and Chemical Binding. <i>Nature</i> , 1966, 210, 4-8.	13.7	97

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127	Human Disturbances Might Cause Dangerous Gas Bubbles to Form in Deep-Diving Whales. Frontiers for Young Minds, 0, 5, .	0.8	0