

Andreas Fahlman

List of Publications by Year in descending order

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Version: 2024-02-01

127
papers

3,277
citations

147801

31
h-index

206112

48
g-index

131
all docs

131
docs citations

131
times ranked

2382
citing authors

#	ARTICLE	IF	CITATIONS
1	Estimates for energy expenditure in free-living animals using acceleration proxies: A reappraisal. <i>Journal of Animal Ecology</i> , 2020, 89, 161-172.	2.8	148
2	Modeling Tissue and Blood Gas Kinetics in Coastal and Offshore Common Bottlenose Dolphins, <i>Tursiops truncatus</i> . <i>Frontiers in Physiology</i> , 2018, 9, 838.	2.8	122
3	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.	1.4	105
4	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.	2.6	99
5	Electron Spectroscopy and Chemical Binding. <i>Nature</i> , 1966, 210, 4-8.	27.8	97
6	Wearable multifunctional printed graphene sensors. <i>Npj Flexible Electronics</i> , 2019, 3, .	10.7	84
7	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.	1.6	83
8	Activity and diving metabolism correlate in Steller sea lion <i>Eumetopias jubatus</i> . <i>Aquatic Biology</i> , 2008, 2, 75-84.	1.4	77
9	Gene Up-Regulation in Heart during Mammalian Hibernation. <i>Cryobiology</i> , 2000, 40, 332-342.	0.7	74
10	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.	1.7	73
11	Heart rate and energetics of free-ranging king penguins (<i>Aptenodytes patagonicus</i>). <i>Journal of Experimental Biology</i> , 2004, 207, 3917-3926.	1.7	72
12	Could beaked whales get the bends?. <i>Respiratory Physiology and Neurobiology</i> , 2009, 167, 235-246.	1.6	71
13	Tracheal compression delays alveolar collapse during deep diving in marine mammals. <i>Respiratory Physiology and Neurobiology</i> , 2008, 161, 298-305.	1.6	69
14	Comparative Respiratory Physiology in Cetaceans. <i>Frontiers in Physiology</i> , 2020, 11, 142.	2.8	66
15	Advances in research on the impacts of anti-submarine sonar on beaked whales. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019, 286, 20182533.	2.6	65
16	Lung mechanics and pulmonary function testing in cetaceans. <i>Journal of Experimental Biology</i> , 2015, 218, 2030-2038.	1.7	64
17	Bottlenose dolphins modify behavior to reduce metabolic effect of tag attachment. <i>Journal of Experimental Biology</i> , 2014, 217, 4229-4236.	1.7	63
18	Deep diving mammals: Dive behavior and circulatory adjustments contribute to bends avoidance. <i>Respiratory Physiology and Neurobiology</i> , 2006, 153, 66-77.	1.6	59

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19	Respiratory function and mechanics in pinnipeds and cetaceans. <i>Journal of Experimental Biology</i> , 2017, 220, 1761-1773.	1.7	59
20	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.	2.8	56
21	Hyperbaric computed tomographic measurement of lung compression in seals and dolphins. <i>Journal of Experimental Biology</i> , 2011, 214, 2390-2397.	1.7	53
22	Extreme diving in mammals: first estimates of behavioural aerobic dive limits in Cuvier's beaked whales. <i>Journal of Experimental Biology</i> , 2020, 223, .	1.7	53
23	Respiratory Function in Voluntary Participating Patagonia Sea Lions (<i>Otaria flavescens</i>) in Sternal Recumbency. <i>Frontiers in Physiology</i> , 2016, 7, 528.	2.8	51
24	Patterns of respiration in diving penguins: is the last gasp an inspired tactic?. <i>Journal of Experimental Biology</i> , 2003, 206, 1751-1763.	1.7	47
25	Static inflation and deflation pressure-volume curves from excised lungs of marine mammals. <i>Journal of Experimental Biology</i> , 2011, 214, 3822-3828.	1.7	47
26	Estimating energetics in cetaceans from respiratory frequency: why we need to understand physiology. <i>Biology Open</i> , 2016, 5, 436-442.	1.2	47
27	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.	1.8	43
28	Pulmonary ventilation-perfusion mismatch: a novel hypothesis for how diving vertebrates may avoid the bends. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2018, 285, 20180482.	2.6	42
29	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.	2.8	37
30	Implanted Nanosensors in Marine Organisms for Physiological Biologging: Design, Feasibility, and Species Variability. <i>ACS Sensors</i> , 2019, 4, 32-43.	7.8	36
31	Effect of fasting on the V̇ _O ₂ -f _H relationship in king penguins, <i>Aptenodytes patagonicus</i> . <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2004, 287, R870-R877.	1.8	33
32	How man-made interference might cause gas bubble emboli in deep diving whales. <i>Frontiers in Physiology</i> , 2014, 5, 13.	2.8	33
33	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.	1.4	33
34	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.	1.8	32
35	Bubbles in live-stranded dolphins. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2012, 279, 1396-1404.	2.6	31
36	How accurately can we estimate energetic costs in a marine top predator, the king penguin?. <i>Zoology</i> , 2007, 110, 81-92.	1.2	30

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37	A comparative analysis of marine mammal tracheas. <i>Journal of Experimental Biology</i> , 2014, 217, 1154-66.	1.7	29
38	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.	2.5	27
39	Field energetics and lung function in wild bottlenose dolphins, <i>Tursiops truncatus</i> , in Sarasota Bay Florida. <i>Royal Society Open Science</i> , 2018, 5, 171280.	2.4	27
40	To what extent might N ₂ limit dive performance in king penguins?. <i>Journal of Experimental Biology</i> , 2007, 210, 3344-3355.	1.7	26
41	Defining risk variables causing gas embolism in loggerhead sea turtles (<i>Caretta caretta</i>) caught in trawls and gillnets. <i>Scientific Reports</i> , 2017, 7, 2739.	3.3	25
42	Decompression sickness in breath-hold divers: A review. <i>Journal of Sports Sciences</i> , 2009, 27, 1519-1534.	2.0	24
43	New Approach to Structure Studies in Organic Chemistry. <i>Nature</i> , 1967, 213, 70-71.	27.8	23
44	Ventilation and gas exchange before and after voluntary static surface breath-holds in clinically healthy bottlenose dolphins, <i>Tursiops truncatus</i> . <i>Journal of Experimental Biology</i> , 2019, 222, .	1.7	23
45	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.	0.6	22
46	Re-evaluating the significance of the dive response during voluntary surface apneas in the bottlenose dolphin, <i>Tursiops truncatus</i> . <i>Scientific Reports</i> , 2019, 9, 8613.	3.3	22
47	Conditioned Variation in Heart Rate During Static Breath-Holds in the Bottlenose Dolphin (<i>Tursiops</i>)	2.8	22
48	Structure studies of sulphur compounds by esca. <i>Chemical Physics Letters</i> , 1968, 1, 557-559.	2.6	21
49	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.	1.7	21
50	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.	1.4	21
51	Dehydration effects on the risk of severe decompression sickness in a swine model. <i>Aviation, Space, and Environmental Medicine</i> , 2006, 77, 102-6.	0.5	21
52	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, .	2.5	20
53	Diving Behavior and Fine-Scale Kinematics of Free-Ranging Risso's Dolphins Foraging in Shallow and Deep-Water Habitats. <i>Frontiers in Ecology and Evolution</i> , 2019, 7, .	2.2	19
54	Pharmacological Interventions to Decompression Sickness in Rats: Comparison of Five Agents. <i>Aviation, Space, and Environmental Medicine</i> , 2008, 79, 7-13.	0.5	18

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55	Shifts in Electron Spectra of Nitrogen in Organic Molecules. <i>Nature</i> , 1967, 214, 481-482.	27.8	17
56	On the likelihood of decompression sickness during H2 biochemical decompression in pigs. <i>Journal of Applied Physiology</i> , 2001, 91, 2720-2729.	2.5	17
57	Resting Metabolic Rate and Lung Function in Wild Offshore Common Bottlenose Dolphins, <i>Tursiops truncatus</i> , Near Bermuda. <i>Frontiers in Physiology</i> , 2018, 9, 886.	2.8	17
58	Using Respiratory Sinus Arrhythmia to Estimate Inspired Tidal Volume in the Bottlenose Dolphin (<i>Tursiops truncatus</i>). <i>Frontiers in Physiology</i> , 2019, 10, 128.	2.8	17
59	Cardiorespiratory coupling in cetaceans; a physiological strategy to improve gas exchange?. <i>Journal of Experimental Biology</i> , 2020, 223, .	1.7	17
60	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.	1.9	17
61	Electron spectroscopic evidence of the thiol-sulphonate structure of cystine S-dioxide. <i>Spectrochimica Acta Part A: Molecular Spectroscopy</i> , 1967, 23, 2015-2020.	0.1	16
62	Behavioral and Physiological Significance of Minimum Resting Metabolic Rate in King Penguins. <i>Physiological and Biochemical Zoology</i> , 2008, 81, 74-86.	1.5	16
63	Increasing activity of H2-metabolizing microbes lowers decompression sickness risk in pigs during H2dives. <i>Journal of Applied Physiology</i> , 2001, 91, 2713-2719.	2.5	15
64	Swimming Energy Economy in Bottlenose Dolphins Under Variable Drag Loading. <i>Frontiers in Marine Science</i> , 2018, 5, .	2.5	15
65	Deciphering function of the pulmonary arterial sphincters in loggerhead sea turtles (<i>Caretta caretta</i>). <i>Journal of Experimental Biology</i> , 2017, 230, 1743-1752.	1.7	15
66	Whistling is metabolically cheap for communicating bottlenose dolphins (<i>Tursiops truncatus</i>). <i>Journal of Experimental Biology</i> , 2020, 223, .	1.7	15
67	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.	4.0	15
68	Treatment of decompression sickness in swine with intravenous perfluorocarbon emulsion. <i>Aviation, Space, and Environmental Medicine</i> , 2004, 75, 301-5.	0.5	15
69	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.	1.2	14
70	Inflation and deflation pressure-volume loops in anesthetized pinnipeds confirms compliant chest and lungs. <i>Frontiers in Physiology</i> , 2014, 5, 433.	2.8	14
71	The Genetic Component of the Forced Diving Bradycardia Response in Mammals. <i>Frontiers in Physiology</i> , 2011, 2, 63.	2.8	13
72	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.	2.8	13

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73	Updating a gas dynamics model using estimates for California sea lions (<i>Zalophus californianus</i>). <i>Respiratory Physiology and Neurobiology</i> , 2016, 234, 1-8.	1.6	13
74	Allometric scaling of decompression sickness risk in terrestrial mammals; cardiac output explains risk of decompression sickness. <i>Scientific Reports</i> , 2017, 7, 40918.	3.3	13
75	Characterizing respiratory capacity in belugas (<i>Delphinapterus leucas</i>). <i>Respiratory Physiology and Neurobiology</i> , 2019, 260, 63-69.	1.6	13
76	The New Era of Physio-Logging and Their Grand Challenges. <i>Frontiers in Physiology</i> , 2021, 12, 669158.	2.8	13
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.	1.9	13
78	Drag, but not buoyancy, affects swim speed in captive Steller sea lions. <i>Biology Open</i> , 2014, 3, 379-386.	1.2	12
79	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.	4.0	12
80	Phosphatidylcholine composition of pulmonary surfactant from terrestrial and marine diving mammals. <i>Respiratory Physiology and Neurobiology</i> , 2015, 211, 29-36.	1.6	11
81	Improving estimates of diving lung volume in air-breathing marine vertebrates. <i>Journal of Experimental Biology</i> , 2020, 223, .	1.7	11
82	Pulmonary Function and Resting Metabolic Rates in California Sea Lions (<i>Zalophus californianus</i>) on Land and in Water. <i>Aquatic Mammals</i> , 2020, 46, 67-79.	0.7	11
83	A simple breathing circuit to maintain isocapnia during measurements of the hypoxic ventilatory response. <i>Respiratory Physiology and Neurobiology</i> , 2002, 133, 259-270.	1.6	10
84	Gas Bubble Disease in the Brain of a Living California Sea Lion (<i>Zalophus californianus</i>). <i>Frontiers in Physiology</i> , 2013, 4, 5.	2.8	10
85	Fasting affects the surface and diving metabolic rates of Steller sea lions <i>Eumetopias jubatus</i> . <i>Aquatic Biology</i> , 2009, 8, 71-82.	1.4	10
86	An "orientation sphere" visualization for examining animal head movements. <i>Ecology and Evolution</i> , 2020, 10, 4291-4302.	1.9	9
87	Respiratory sinus arrhythmia and submersion bradycardia in bottlenose dolphins (<i>Tursiops</i>) Tj ETQq1 1 0.784314.rgBT /Overlock 101	1.7	9
88	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.	1.8	8
89	Hyperbaric tracheobronchial compression in cetaceans and pinnipeds. <i>Journal of Experimental Biology</i> , 2020, 223, .	1.7	8
90	Dynamic body acceleration as a proxy to predict the cost of locomotion in bottlenose dolphins. <i>Journal of Experimental Biology</i> , 2022, 225, .	1.7	8

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91	Modeling the Marine Resources Consumed in Raising a King Penguin Chick: An Energetics Approach. <i>Physiological and Biochemical Zoology</i> , 2008, 81, 856-867.	1.5	7
92	The use of Diagnostic Imaging for Identifying Abnormal Gas Accumulations in Cetaceans and Pinnipeds. <i>Frontiers in Physiology</i> , 2012, 3, 181.	2.8	7
93	Editorial: Ecology and Behaviour of Free-Ranging Animals Studied by Advanced Data-Logging and Tracking Techniques. <i>Frontiers in Ecology and Evolution</i> , 2020, 8, .	2.2	7
94	Near-Infrared Spectroscopy as a Tool for Marine Mammal Research and Care. <i>Frontiers in Physiology</i> , 2021, 12, 816701.	2.8	7
95	Prophylactic high dose methylprednisolone fails to treat severe decompression sickness in swine. <i>Aviation, Space, and Environmental Medicine</i> , 2003, 74, 21-8.	0.5	7
96	Probabilistic Modelling for Estimating Gas Kinetics and Decompression Sickness Risk in Pigs During H2 Biochemical Decompression. <i>Bulletin of Mathematical Biology</i> , 2003, 65, 747-766.	1.9	6
97	Measurement reliability of highly variable physiological responses to experimentally-manipulated gas fractions. <i>Physiological Measurement</i> , 2004, 25, 1189-1197.	2.1	6
98	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.	2.5	6
99	Impact of gas emboli and hyperbaric treatment on respiratory function of loggerhead sea turtles (<i>Caretta caretta</i>). , 2018, 6, cox074.		6
100	Behavioral Biomarkers for Animal Health: A Case Study Using Animal-Attached Technology on Loggerhead Turtles. <i>Frontiers in Ecology and Evolution</i> , 2020, 7, .	2.2	6
101	Pulmonary function testing as a diagnostic tool to assess respiratory health in bottlenose dolphins <i>Tursiops truncatus</i> . <i>Diseases of Aquatic Organisms</i> , 2020, 138, 17-27.	1.0	6
102	Decompression sickness risk reduced by native intestinal flora in pigs after H2 dives. <i>Undersea and Hyperbaric Medicine</i> , 2001, 28, 89-97.	0.3	6
103	Onshore energetics in penguins: Theory, estimation and ecological implications. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2007, 147, 1009-1014.	1.8	5
104	INTRAPERITONEAL DEXTROSE ADMINISTRATION AS AN ALTERNATIVE EMERGENCY TREATMENT FOR HYPOGLYCEMIC YEARLING CALIFORNIA SEA LIONS (<i>ZALOPHUS CALIFORNIANUS</i>). <i>Journal of Zoo and Wildlife Medicine</i> , 2016, 47, 76-82.	0.6	5
105	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.	1.8	5
106	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.	2.5	5
107	Myoglobin Concentration and Oxygen Stores in Different Functional Muscle Groups from Three Small Cetacean Species. <i>Animals</i> , 2021, 11, 451.	2.3	4
108	What is physiologging? Introduction to the theme issue, part 2. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20210028.	4.0	4

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109	A Baseline Model For Estimating the Risk of Gas Embolism in Sea Turtles During Routine Dives. <i>Frontiers in Physiology</i> , 2021, 12, 678555.	2.8	4
110	Subsurface swimming and stationary diving are metabolically cheap in adult Pacific walrus (<i>Odobenus rosmarus divergens</i>). <i>Journal of Experimental Biology</i> , 2021, 224, .	1.7	4
111	Calorimetry and respirometry in guinea pigs in hydrox and heliox at 10–60Âatm. <i>Pflugers Archiv European Journal of Physiology</i> , 2000, 440, 843-851.	2.8	3
112	Recovery from Swimmingâ€­Induced Hypothermia in King Penguins: Effects of Nutritional Condition. <i>Physiological and Biochemical Zoology</i> , 2008, 81, 434-441.	1.5	3
113	The physiological consequences of breath-hold diving in marine mammals: the Scholander legacy. <i>Frontiers in Physiology</i> , 2012, 3, 473.	2.8	3
114	Response to â€­On the importance of understanding physiology when estimating energetics in cetaceansâ€­. <i>Biology Open</i> , 2017, 6, 307-308.	1.2	3
115	The degradation of proteins in pinniped skeletal muscle: viability of post-mortem tissue in physiological research. , 2015, 3, cov019.		2
116	Response to: The metabolic cost of whistling is low but measurable in dolphins. <i>Journal of Experimental Biology</i> , 2020, 223, .	1.7	2
117	RESPIRATORY CHANGES IN STRANDED BOTTLENOSE DOLPHINS (<i>TURSIOPS TRUNCATUS</i>). <i>Journal of Zoo and Wildlife Medicine</i> , 2021, 52, 49-56.	0.6	2
118	Activity of loggerhead turtles during the U-shaped dive: insights using angular velocity metrics. <i>Endangered Species Research</i> , 2021, 45, 1-12.	2.4	2
119	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.	0.5	2
120	Comparative High Pressure Biology. Phillipe Sebert, Editor.. <i>Integrative and Comparative Biology</i> , 2010, 50, 691-691.	2.0	1
121	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, .	1.7	1
122	Modulation of decompression sickness risk in pigs with caffeine during H2biochemical decompression. <i>Journal of Applied Physiology</i> , 2002, 93, 1583-1589.	2.5	0
123	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.	1.8	0
124	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.	1.8	0
125	Human Disturbances Might Cause Dangerous Gas Bubbles to Form in Deep-Diving Whales. <i>Frontiers for Young Minds</i> , 0, 5, .	0.8	0
126	The influence of buoyancy on diving metabolism of Steller sea lions (<i>Eumetopias jubatus</i>). <i>FASEB Journal</i> , 2007, 21, A593.	0.5	0

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127	Swimming versus gliding during dives to depth in Steller sea lions (<i>Eumetopias jubatus</i>). FASEB Journal, 2007, 21, A593.	0.5	0