Andrew J Esbaugh

List of Publications by Year
in descending order

95 papers	3,737 citations	136740 32 h-index	143772 57 g-index
95 all docs	95 docs citations	95 times ranked	2883 citing authors

#	Article	IF	Citations
1	Deepwater Horizon crude oil impacts the developing hearts of large predatory pelagic fish. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1510-8.	3.3	359
2	Oxygen- and capacity-limited thermal tolerance: blurring ecology and physiology. Journal of Experimental Biology, 2018, 221, .	0.8	204
3	Acute Embryonic or Juvenile Exposure to Deepwater Horizon Crude Oil Impairs the Swimming Performance of Mahi-Mahi (Coryphaena hippurus). Environmental Science & Technology, 2014, 48, 7053-7061.	4.6	200
4	The effects of weathering and chemical dispersion on Deepwater Horizon crude oil toxicity to mahi-mahi (Coryphaena hippurus) early life stages. Science of the Total Environment, 2016, 543, 644-651.	3.9	159
5	Impacts of ocean acidification on respiratory gas exchange and acidâ€“base balance in a marine teleost, Opsanus beta. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2012, 182, 921-934.	0.7	157
6	The structure and function of carbonic anhydrase isozymes in the respiratory system of vertebrates. Respiratory Physiology and Neurobiology, 2006, 154, 185-198.	0.7	133
7	Oxygen-dependence of upper thermal limits in fishes. Journal of Experimental Biology, 2016, 219, 3376-3383.	0.8	110
8	Branchial expression and localization of SLC9A2 and SLC9A3 sodium/hydrogen exchangers and their possible role in acidâ€“base regulation in freshwater rainbow trout (Oncorhynchus mykiss). Journal of Experimental Biology, 2008, 211, 2467-2477.	0.8	108
9	Corresponding morphological and molecular indicators of crude oil toxicity to the developing hearts of mahi mahi. Scientific Reports, 2015, 5, 17326.	1.6	93
10	Larval Red Drum (Sciaenops ocellatus) Sublethal Exposure to Weathered Deepwater Horizon Crude Oil: Developmental and Transcriptomic Consequences. Environmental Science & Technology, 2017, 51, 10162-10172.	4.6	91
11	Cardiac function and survival are affected by crude oil in larval red drum, Sciaenops ocellatus. Science of the Total Environment, 2017, 579, 797-804.	3.9	87
12	Physiological implications of ocean acidification for marine fish: emerging patterns and new insights. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2018, 188, 1-13.	0.7	80
13	Sustained impairment of respiratory function and swim performance following acute oil exposure in a coastal marine fish. Aquatic Toxicology, 2017, 187, 82-89.	1.9	73
14	Respiratory plasticity is insufficient to alleviate blood acidâ€“base disturbances after acclimation to ocean acidification in the estuarine red drum, Sciaenops ocellatus. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2016, 186, 97-109.	0.7	67
15	The involvement of SLC26 anion transporters in chloride uptake in zebrafish (Danio rerio) larvae. Journal of Experimental Biology, 2009, 212, 3283-3295.	0.8	66
16	Cytoplasmic carbonic anhydrase isozymes in rainbow trout Oncorhynchus mykiss: comparative physiology and molecular evolution. Journal of Experimental Biology, 2005, 208, 1951-1961.	0.8	64
17	Oil exposure disrupts early life-history stages of coral reef fishes via behavioural impairments. Nature Ecology and Evolution, 2017, 1, 1146-1152.	3.4	60
18	Impact of Oil Spills on Marine Life in the Gulf of Mexico: Effects on Plankton, Nekton, and Deep-Sea Benthos. Oceanography, 2016, 29, 174-181.	0.5	58

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19	Effects of Deepwater Horizon crude oil on ocular development in two estuarine fish species, red drum (Sciaenops ocellatus) and sheepshead minnow (Cyprinodon variegatus). Ecotoxicology and Environmental Safety, 2018, 166, 186-191.	2.9	58
20	Regulation of apical H⁺-ATPase activity and intestinal HCO₃^{â˜’}secretion in marine fish osmoregulation. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2011, 301, R1682-R1691.	0.9	55
21	Acid-base physiology and CO2 homeostasis: Regulation and compensation in response to elevated environmental CO2. Fish Physiology, 2019, , 69-132.	0.2	49
22	Intestinal transport following transfer to increased salinity in an anadromous fish (Oncorhynchus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 159, 150-158.	0.8	46
23	Physiological impacts of Deepwater Horizon oil on fish. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2019, 224, 108558.	1.3	46
24	Modulation of hypothalamicâ€“pituitaryâ€“interrenal axis function by social status in rainbow trout. General and Comparative Endocrinology, 2012, 176, 201-210.	0.8	44
25	The toxicity and physiological effects of copper on the freshwater pulmonate snail, Lymnaea stagnalis. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2011, 154, 261-267.	1.3	41
26	Ocean Acidification Leads to Counterproductive Intestinal Base Loss in the Gulf Toadfish (Opsanus) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.6	39
27	Effects of hypoxia and ocean acidification on the upper thermal niche boundaries of coral reef fishes. Biology Letters, 2017, 13, 20170135.	1.0	38
28	Comparative physiology and molecular evolution of carbonic anhydrase in the erythrocytes of early vertebrates. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2003, 136, 259-269.	0.8	37
29	Comparative physiology and molecular analysis of carbonic anhydrase from the red blood cells of teleost fish. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2004, 174, 429-38.	0.7	36
30	Osmoregulation and branchial plasticity after acute freshwater transfer in red drum, Sciaenops ocellatus. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2014, 178, 82-89.	0.8	34
31	Detecting the Unexpected: A Research Framework for Ocean Acidification. Environmental Science & Technology, 2014, 48, 9982-9994.	4.6	34
32	Hypoxia tolerance decreases with body size in red drum Sciaenops ocellatus. Journal of Fish Biology, 2016, 89, 1488-1493.	0.7	34
33	Hyperventilation and blood acidâ€“base balance in hypercapnia exposed red drum (Sciaenops ocellatus). Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2016, 186, 447-460.	0.7	34
34	Development and validation of a biotic ligand model for predicting chronic toxicity of lead to Ceriodaphnia dubia. Environmental Toxicology and Chemistry, 2014, 33, 394-403.	2.2	32
35	Acclimation to prolonged hypoxia alters hemoglobin isoform expression and increases hemoglobin oxygen affinity and aerobic performance in a marine fish. Scientific Reports, 2017, 7, 7834.	1.6	31
36	The early life stages of an estuarine fish, the red drum (Sciaenops ocellatus), are tolerant to high pCO2. ICES Journal of Marine Science, 2017, 74, 1042-1050.	1.2	30

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37	Mechanisms of acidâ€“base regulation in the African lungfish Protopterus annectens. Journal of Experimental Biology, 2007, 210, 1944-1959.	0.8	29
38	Investigations into the mechanism of lead toxicity to the freshwater pulmonate snail, Lymnaea stagnalis. Aquatic Toxicology, 2012, 106-107, 147-156.	1.9	29
39	mRNA-miRNA-Seq Reveals Neuro-Cardio Mechanisms of Crude Oil Toxicity in Red Drum (Sciaenops) Tj ETQq1 1 0.784314 rgBT /Ov	4.6	29
40	A review of the toxicology of oil in vertebrates: what we have learned following the Deepwater Horizon oil spill. Journal of Toxicology and Environmental Health - Part B: Critical Reviews, 2021, 24, 355-394.	2.9	28
41	Carbonic anhydrase expression and CO2 excretion during early development in zebrafishDanio rerio. Journal of Experimental Biology, 2009, 212, 3837-3845.	0.8	27
42	A novel system for embryo-larval toxicity testing of pelagic fish: Applications for impact assessment of Deepwater Horizon crude oil. Chemosphere, 2016, 162, 261-268.	4.2	27
43	Oil exposure alters social group cohesion in fish. Scientific Reports, 2019, 9, 13520.	1.6	27
44	Compensatory regulation of acidâ€“base balance during salinity transfer in rainbow trout (Oncorhynchus mykiss). Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2012, 182, 259-274.	0.7	26
45	Intestinal Na ⁺ , K ⁺ , 2Cl ^{â^'} cotransporter 2 plays a crucial role in hyperosmotic transitions of a euryhaline teleost. Physiological Reports, 2016, 4, e13028.	0.7	26
46	Multi-linear regression analysis, preliminary biotic ligand modeling, and cross species comparison of the effects of water chemistry on chronic lead toxicity in invertebrates. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2012, 155, 423-431.	1.3	25
47	Effects of salinity and hypoxia-induced hyperventilation on oxygen consumption and cost of osmoregulation in the estuarine red drum (Sciaenops ocellatus). Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2018, 222, 52-59.	0.8	25
48	The effects of oil induced respiratory impairment on two indices of hypoxia tolerance in Atlantic croaker (Micropogonias undulatus). Chemosphere, 2018, 200, 143-150.	4.2	25
49	Using aerobic exercise to evaluate sub-lethal tolerance of acute warming in fishes. Journal of Experimental Biology, 2020, 223, .	0.8	25
50	Membrane-associated carbonic anhydrase in the respiratory system of the Pacific hagfish (Eptatretus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.7	23
51	Carbon dioxide induced plasticity of branchial acid-base pathways in an estuarine teleost. Scientific Reports, 2017, 7, 45680.	1.6	23
52	Gas Transport and Gill Function in Water-Breathing Fish. , 2009, , 5-42.		22
53	Tribute to R. G. Boutilier: Evidence of a high activity carbonic anhydrase isozyme in the red blood cells of an ancient vertebrate, the sea lamprey Petromyzon marinus. Journal of Experimental Biology, 2006, 209, 1169-1178.	0.8	21
54	Influences of water chemistry on the acute toxicity of lead to Pimephales promelas and Ceriodaphnia dubia. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2011, 153, 82-90.	1.3	21

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55	The additive effects of oil exposure and hypoxia on aerobic performance in red drum (Sciaenops) Tj ETQq1 1 0.784314 rgBT /Overlock 1	3.9	21
56	Guanylin peptides regulate electrolyte and fluid transport in the Gulf toadfish (Opsanus beta) posterior intestine. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2014, 307, R1167-R1179.	0.9	20
57	Social competition in red drum (Sciaenops ocellatus) is influenced by crude oil exposure. Aquatic Toxicology, 2018, 203, 194-201.	1.9	20
58	Hypoxia-inducible carbonic anhydrase IX expression is insufficient to alleviate intracellular metabolic acidosis in the muscle of zebrafish,Danio rerio. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2009, 296, R150-R160.	0.9	19
59	Esophageal desalination is mediated by Na+, H+ exchanger-2 in the gulf toadfish (Opsanus beta). Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2014, 171, 57-63.	0.8	19
60	Characterization and expression of a myosin heavyâ€“chain isoform in juvenile walleye Sander vitreus. Journal of Fish Biology, 2009, 75, 1048-1062.	0.7	16
61	Evidence for transcriptional regulation of the urea transporter in the gill of the Gulf toadfish, Opsanus beta. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2011, 160, 72-80.	0.7	16
62	Implications of pH manipulation methods for metal toxicity: Not all acidic environments are created equal. Aquatic Toxicology, 2013, 130-131, 27-30.	1.9	16
63	Transport, Fate and Impacts of the Deep Plume of Petroleum Hydrocarbons Formed During the Macondo Blowout. Frontiers in Marine Science, 2020, 7, .	1.2	16
64	Revisiting the effects of crowding and feeding in the gulf toadfish, Opsanus beta: the role of Rhesus glycoproteins in nitrogen metabolism and excretion. Journal of Experimental Biology, 2012, 215, 301-313.	0.8	13
65	A methodological evaluation of the determination of critical oxygen threshold in an estuarine teleost. Biology Open, 2019, 8, .	0.6	13
66	Aggression supersedes individual oxygen demand to drive group airâ€breathing in a social catfish. Journal of Animal Ecology, 2018, 87, 223-234.	1.3	12
67	A solution to nature's haemoglobin knockout: a plasma-accessible carbonic anhydrase catalyses CO2 excretion in Antarctic icefish gills. Journal of Experimental Biology, 2018, 221, .	0.8	12
68	Na ⁺ K ⁺ ATPase isoform switching in zebrafish during transition to dilute freshwater habitats. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20190630.	1.2	12
69	Blood and Gill Carbonic Anhydrase in the Context of a Chondrichthyan Model of CO₂Excretion. Physiological and Biochemical Zoology, 2019, 92, 554-566.	0.6	12
70	The effects of acute crude oil exposure on growth and competition in red drum, Sciaenops ocellatus. Science of the Total Environment, 2021, 751, 141804.	3.9	12
71	Comparative evaluation of Na+ uptake in Cyprinodon variegatus variegatus (Lacepede) and Cyprinodon variegatus hubbsi (Carr) (Cyprinodontiformes, Teleostei): Evaluation of NHE function in high and low Na+ freshwater. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2015, 185, 115-124.	0.8	11
72	Oil toxicity and implications for environmental tolerance in fish. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2019, 220, 52-61.	1.3	11

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73	Evidence for a membrane-bound carbonic anhydrase in the heart of an ancient vertebrate, the sea lamprey (Petromyzon marinus). Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2004, 174, 399-406.	0.7	10
74	Multi-linear regression models predict the effects of water chemistry on acute lead toxicity to Ceriodaphnia dubia and Pimephales promelas. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2011, 154, 137-145.	1.3	10
75	Is hypoxia vulnerability in fishes a by-product of maximum metabolic rate?. Journal of Experimental Biology, 2021, 224, .	0.8	10
76	Identification of two glucocorticoid response elements in the promoter region of the ubiquitous isoform of glutamine synthetase in gulf toadfish, Opsanus beta. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2009, 297, R1075-R1081.	0.9	8
77	The effects of sustained aerobic swimming on osmoregulatory pathways in Atlantic salmon Salmo salar smolts. Journal of Fish Biology, 2014, 85, 1355-1368.	0.7	8
78	Red blood cell carbonic anhydrase mediates oxygen delivery via the Root effect in red drum. Journal of Experimental Biology, 2020, 223, .	0.8	8
79	The importance of a single amino acid substitution in reduced red blood cell carbonic anhydrase function of early-diverging fish. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2020, 190, 287-296.	0.7	8
80	Osmoregulatory plasticity during hypersaline acclimation in red drum, Sciaenops ocellatus. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2021, 191, 731-740.	0.7	8
81	Behavioral Changes in a Coastal Marine Fish Lead to Increased Predation Risk Following Oil Exposure. Environmental Science & Technology, 2021, 55, 8119-8127.	4.6	8
82	Physiological Responses of an Arctic Crustose Coralline Alga (Leptophytum foecundum) to Variations in Salinity. Frontiers in Plant Science, 2020, 11, 1272.	1.7	7
83	The effects of temperature on oil-induced respiratory impairment in red drum (Sciaenops ocellatus). Aquatic Toxicology, 2021, 233, 105773.	1.9	7
84	Evidence for a carbonic anhydrase-related protein in the brain of rainbow trout (Oncorhynchus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 30	0.4	5
85	Characterization of carbonic anhydrase XIII in the erythrocytes of the Burmese python, Python molurus bivittatus. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2015, 187, 71-77.	0.7	4
86	The effects of warming on red blood cell carbonic anhydrase activity and respiratory performance in a marine fish. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2021, 260, 111033.	0.8	4
87	Toxicity in Aquatic Environments: The Cocktail Effect. , 2018, , 203-234.		3
88	Assessment of hypoxia avoidance behaviours in a eurythermal fish at two temperatures using a modified shuttlebox system. Journal of Fish Biology, 2021, 99, 264-270.	0.7	3
89	Pyrene drives reduced brain size during early life exposure in an estuarine fish, the red drum (Sciaenops ocellatus). Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2022, 259, 109397.	1.3	3
90	Aspects of lymph-heart function inRana catesbeiana. Canadian Journal of Zoology, 2002, 80, 2125-2130.	0.4	2

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91	Renal plasticity in response to feeding in the Burmese python, Python molurus bivittatus. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2015, 188, 120-126.	0.8	2
92	Exposure to Deepwater Horizon crude oil increases free cholesterol in larval red drum (Sciaenops) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.9	2
93	Mechanisms of acid-base regulation following respiratory alkalosis in red drum (Sciaenops) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 2020, 250, 110779.	0.8	1
94	The early life stages of the orange-spotted grouper, Epinephelus coioides, exhibit robustness to hypercapnia. ICES Journal of Marine Science, 2020, 77, 1066-1074.	1.2	0
95	Early life-stage Deepwater Horizon crude oil exposure induces latent osmoregulatory defects in larval red drum (Sciaenops ocellatus). Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2022, 260, 109405.	1.3	0