

Pierre U. Blier

List of Publications by Year in descending order

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109
papers

3,809
citations

136950

32
h-index

149698

56
g-index

111
all docs

111
docs citations

111
times ranked

3667
citing authors

#	ARTICLE	IF	CITATIONS
1	The unusual system of doubly uniparental inheritance of mtDNA: isn't one enough?. Trends in Genetics, 2007, 23, 465-474.	6.7	294
2	Natural selection and the evolution of mtDNA-encoded peptides: evidence for intergenomic co-adaptation. Trends in Genetics, 2001, 17, 400-406.	6.7	237
3	Mitochondrial phylogenomics of the Bivalvia (Mollusca): searching for the origin and mitogenomic correlates of doubly uniparental inheritance of mtDNA. BMC Evolutionary Biology, 2010, 10, 50.	3.2	148
4	Comparative Analysis of Gender-Associated Complete Mitochondrial Genomes in Marine Mussels (<i>Mytilus</i> spp.). Genetics, 2006, 172, 1107-1119.	2.9	121
5	Comparative Mitochondrial Genomics of Freshwater Mussels (Bivalvia: Unionoida) With Doubly Uniparental Inheritance of mtDNA: Gender-Specific Open Reading Frames and Putative Origins of Replication. Genetics, 2009, 183, 1575-1589.	2.9	114
6	Thermal acclimation in fish: conservative and labile properties of swimming muscle. Canadian Journal of Zoology, 1988, 66, 1105-1115.	1.0	102
7	A Comparative Mitogenomic Analysis of the Potential Adaptive Value of Arctic Charr mtDNA Introgression in Brook Charr Populations (<i>Salvelinus fontinalis</i> Mitchell). Molecular Biology and Evolution, 2002, 19, 1902-1909.	8.9	96
8	Mitochondrial whims: metabolic rate, longevity and the rate of molecular evolution. Biology Letters, 2009, 5, 413-416.	2.3	90
9	Digestive capacity and compensatory growth in Atlantic cod (<i>Gadus morhua</i>). Fish Physiology and Biochemistry, 2002, 26, 121-128.	2.3	88
10	The extreme longevity of <i>Arctica islandica</i> is associated with increased peroxidation resistance in mitochondrial membranes. Aging Cell, 2012, 11, 845-855.	6.7	88
11	Bioenergetic and genetic parameters in relation to susceptibility of blue mussels, <i>Mytilus edulis</i> (L.) to summer mortality. Journal of Experimental Marine Biology and Ecology, 1998, 221, 27-58.	1.5	82
12	Remodeling pathway control of mitochondrial respiratory capacity by temperature in mouse heart: electron flow through the Q-junction in permeabilized fibers. Scientific Reports, 2017, 7, 2840.	3.3	82
13	Evolved genetic and phenotypic differences due to mitochondrial-nuclear interactions. PLoS Genetics, 2017, 13, e1006517.	3.5	81
14	NATURALLY OCCURRING MITOCHONDRIAL DNA HAPLOTYPES EXHIBIT METABOLIC DIFFERENCES: INSIGHT INTO FUNCTIONAL PROPERTIES OF MITOCHONDRIA. Evolution; International Journal of Organic Evolution, 2012, 66, 3189-3197.	2.3	79
15	Thermal tolerance and thermal sensitivity of heart mitochondria: Mitochondrial integrity and ROS production. Free Radical Biology and Medicine, 2018, 116, 11-18.	2.9	78
16	Geographical extent of Arctic char (<i>Salvelinus alpinus</i>) mtDNA introgression in brook char populations (<i>S. fontinalis</i>) from eastern Québec, Canada. Molecular Ecology, 1998, 7, 1655-1662.	3.9	72
17	Thermal sensitivity of mitochondrial metabolism in two distinct mitotypes of <i>Drosophila simulans</i> : evaluation of mitochondrial plasticity. Journal of Experimental Biology, 2010, 213, 1665-1675.	1.7	71
18	Biological and technical evaluation of the potential of marine and anadromous fish species for cold-water mariculture. Aquaculture Research, 2002, 33, 95-108.	1.8	69

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19	Holding our breath in our modern world: will mitochondria keep the pace with climate changes?. Canadian Journal of Zoology, 2014, 92, 591-601.	1.0	64
20	The impact of the thermal sensitivity of cytochrome c oxidase on the respiration rate of Arctic charr red muscle mitochondria. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2001, 171, 247-253.	1.5	62
21	Thermal sensitivity of mitochondrial functions in permeabilized muscle fibers from two populations of <i>Drosophila simulans</i> with divergent mitotypes. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2011, 301, R48-R59.	1.8	59
22	Metabolic responses to cold acclimation in the swimming musculature of lake whitefish, <i>Coregonus clupeaformis</i> . The Journal of Experimental Zoology, 1988, 246, 244-252.	1.4	58
23	Is the growth rate of fish set by digestive enzymes or metabolic capacity of the tissues? Insight from transgenic coho salmon. Aquaculture, 2002, 209, 379-384.	3.5	54
24	Docosapentaenoic acid monoacylglyceride reduces inflammation and vascular remodeling in experimental pulmonary hypertension. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 307, H574-H586.	3.2	53
25	Thermal sensitivity and phenotypic plasticity of cardiac mitochondrial metabolism in European perch, <i>Perca fluviatilis</i> . Journal of Experimental Biology, 2017, 220, 386-396.	1.7	52
26	Eicosapentaenoic acid and docosapentaenoic acid monoglycerides are more potent than docosahexaenoic acid monoglyceride to resolve inflammation in a rheumatoid arthritis model. Arthritis Research and Therapy, 2015, 17, 142.	3.5	49
27	Low hydrogen peroxide production in mitochondria of the long-lived <i>Arctia islandica</i> : underlying mechanisms for slow aging. Aging Cell, 2013, 12, 584-592.	6.7	48
28	Can multi-generational exposure to ocean warming and acidification lead to the adaptation of life-history and physiology in a marine metazoan?. Journal of Experimental Biology, 2017, 220, 551-563.	1.7	47
29	Nucleic acids and enzymes in Atlantic cod (<i>Gadus morhua</i>) differing in condition and growth rate trajectories. Canadian Journal of Fisheries and Aquatic Sciences, 1998, 55, 788-795.	1.4	44
30	Age Dependent Dysfunction of Mitochondrial and ROS Metabolism Induced by Mitonuclear Mismatch. Frontiers in Genetics, 2019, 10, 130.	2.3	41
31	Mitochondrial haplotype divergences affect specific temperature sensitivity of mitochondrial respiration. Journal of Bioenergetics and Biomembranes, 2013, 45, 25-35.	2.3	39
32	Thermal sensitivity of cardiac mitochondrial metabolism in an ectothermic species from a cold environment, Atlantic wolffish (<i>Anarhichas lupus</i>). Journal of Experimental Marine Biology and Ecology, 2010, 384, 113-118.	1.5	37
33	Inverse relationship between longevity and evolutionary rate of mitochondrial proteins in mammals and birds. Mitochondrion, 2009, 9, 51-57.	3.4	36
34	Thermal sensitivity of oxidative phosphorylation in rat heart mitochondria: Does pyruvate dehydrogenase dictate the response to temperature?. Journal of Thermal Biology, 2010, 35, 105-111.	2.5	31
35	Effects of pH and Temperature on the Kinetics of Pyruvate Oxidation by Muscle Mitochondria from Rainbow Trout (<i>Oncorhynchus mykiss</i>). Physiological Zoology, 1993, 66, 474-489.	1.5	30
36	The early ontogeny of digestive and metabolic enzyme activities in two commercial strains of arctic charr (<i>Salvelinus alpinus</i> L.). Journal of Experimental Zoology Part A, Comparative Experimental Biology, 2003, 299A, 151-160.	1.3	30

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37	Effect of docosahexaenoic acid monoacylglyceride on systemic hypertension and cardiovascular dysfunction. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2015, 309, H93-H102.	3.2	30
38	Gene by environmental interactions affecting oxidative phosphorylation and thermal sensitivity. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2016, 311, R157-R165.	1.8	30
39	What modulates animal longevity? Fast and slow aging in bivalves as a model for the study of lifespan. <i>Seminars in Cell and Developmental Biology</i> , 2017, 70, 130-140.	5.0	30
40	Energy metabolism and survival of the juvenile recruits of the American lobster (<i>Homarus</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td 143, 111-123.	2.5	30
41	Role of reversal of gender-associated mitochondrial DNA affects mitochondrial function in <i>Mytilus edulis</i> (Bivalvia: Mytilidae). <i>Journal of Experimental Zoology Part B: Molecular and Developmental Evolution</i> , 2009, 312B, 108-117.	1.3	29
42	Cardiac mitochondrial plasticity and thermal sensitivity in a fish inhabiting an artificially heated ecosystem. <i>Scientific Reports</i> , 2019, 9, 17832.	3.3	28
43	The influence of gene-environment interactions on GHR and IGF-1 expression and their association with growth in brook charr, <i>Salvelinus fontinalis</i> (Mitchill). <i>BMC Genetics</i> , 2007, 8, 87.	2.7	27
44	Functional conservatism in mitochondrial evolution: insight from hybridization of arctic and brook charrs. <i>Journal of Experimental Zoology Part B: Molecular and Developmental Evolution</i> , 2006, 306B, 425-432.	1.3	26
45	Tolerance, growth and haloplasticity of the Atlantic wolffish (<i>Anarhichas lupus</i>) exposed to various salinities. <i>Aquaculture</i> , 2004, 236, 659-675.	3.5	25
46	Protein synthesis is lowered while 20S proteasome activity is maintained following acclimation to low temperature in juvenile spotted wolffish (<i>Anarhichas minor</i> Olafsen). <i>Journal of Experimental Biology</i> , 2009, 212, 1294-1301.	1.7	25
47	Metabolic remodelling associated with mtDNA: insights into the adaptive value of doubly uniparental inheritance of mitochondria. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019, 286, 20182708.	2.6	25
48	North American range extension of the invasive Asian clam in a St. Lawrence River power station thermal plume. <i>Aquatic Invasions</i> , 2012, 7, 81-89.	1.6	24
49	Pyganodon (Bivalvia: Unionoida: Unionidae) phylogenetics: A male- and female-transmitted mitochondrial DNA perspective. <i>Molecular Phylogenetics and Evolution</i> , 2012, 63, 430-444.	2.7	23
50	Can digestive and metabolic enzyme activity levels predict growth rate and survival of newly hatched Atlantic wolffish (<i>Anarhichas lupus</i> Olafsen)? <i>Aquaculture Research</i> , 2004, 35, 608-613.	1.8	22
51	Linking paternally inherited mtDNA variants and sperm performance. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020, 375, 20190177.	4.0	22
52	Do protein hydrolysates improve survival and growth of newly-hatched spotted wolffish (<i>Anarhichas</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td 143, 111-123.	3.5	21
53	Metabolic and digestive enzyme activity profiles of newly hatched spotted wolffish (<i>Anarhichas</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 627 Td 143, 111-123.	1.8	21
54	Dietary fatty acids and oxidative stress in the heart mitochondria. <i>Mitochondrion</i> , 2011, 11, 97-103.	3.4	21

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55	Ontogenesis of catabolic and energy metabolism capacities during the embryonic development of spotted wolffish (<i>Anarhichas minor</i>). <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2008, 150, 200-206.	1.6	19
56	Fish Health: An Oxidative Stress Perspective. <i>Fisheries and Aquaculture Journal</i> , 2014, 05, .	0.2	19
57	Potential Application of Eicosapentaenoic Acid Monoacylglyceride in the Management of Colorectal Cancer. <i>Marine Drugs</i> , 2017, 15, 283.	4.6	19
58	Life-history trade-offs and limitations associated with phenotypic adaptation under future ocean warming and elevated salinity. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019, 374, 20180428.	4.0	19
59	Masculinization Events and Doubly Uniparental Inheritance of Mitochondrial DNA: A Model for Understanding the Evolutionary Dynamics of Gender-Associated mtDNA in Mussels. , 2009, , 163-173.		19
60	Epitoky in <i>Nereis (Neanthes) virens</i> (Polychaeta: Nereididae): A story about sex and death. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2008, 149, 202-208.	1.6	18
61	Ontogenetic effects of diet during early development on growth performance, myosin mRNA expression and metabolic enzyme activity in Atlantic cod juveniles reared at different salinities. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2010, 156, 102-109.	1.8	18
62	Sperm cryoconservation in <i>Anarhichas</i> sp., endangered cold-water aquaculture species with internal fertilization. <i>Aquaculture International</i> , 2008, 16, 273-279.	2.2	17
63	Thermal sensitivity of metabolic enzymes in subarctic and temperate freshwater mussels (Bivalvia): Tj ETQq1 1 0.784314 rgBT /Overlo	2.5	17
64	MAG-EPA reduces severity of DSS-induced colitis in rats. <i>American Journal of Physiology - Renal Physiology</i> , 2016, 310, G808-G821.	3.4	17
65	The effect of energetic condition on growth dynamics and health of Atlantic cod (<i>Gadus morhua</i>). <i>Journal of Applied Ichthyology</i> , 2006, 22, 138-144.	0.7	16
66	From Africa to Antarctica: Exploring the Metabolism of Fish Heart Mitochondria Across a Wide Thermal Range. <i>Frontiers in Physiology</i> , 2019, 10, 1220.	2.8	15
67	Metabolic Changes during the Reproductive Migration of Two Sympatric Coregonines, <i>Coregonus artedii</i> and <i>Coregonus clupeaformis</i> . <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1986, 43, 1859-1865.	1.4	14
68	Seasonal modulation of plasma antifreeze protein levels in Atlantic (<i>Anarhichas lupus</i>) and spotted wolffish (<i>A. minor</i>). <i>Journal of Experimental Marine Biology and Ecology</i> , 2006, 335, 142-150.	1.5	14
69	The digestive and metabolic enzyme activity profiles of a nonmetamorphic marine fish species: effects of feed type and feeding level. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2007, 64, 849-856.	1.4	13
70	Age, Diet, and Season Do Not Affect Longevity-Related Differences in Peroxidation Index Between <i>Spisula solidissima</i> and <i>Arctica islandica</i> . <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2015, 70, 434-443.	3.6	13
71	Reproductive events and associated reduction in the seawater adaptability of brook charr (<i>Salvelinus</i>) Tj ETQq1 1 0.784314 rgBT /Overlo	1.2	12
72	Applying microsatellites in two commercial strains of Arctic charr (<i>Salvelinus alpinus</i>): Potential for a selective breeding program. <i>Aquaculture</i> , 2006, 257, 37-43.	3.5	12

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73	Atlantic cod (<i>Gadus morhua</i>) from cold and warm environments differ in their maximum growth capacity at low temperatures. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2008, 65, 2579-2591.	1.4	12
74	Morphological and physiological aspects of takeoff aptitudes of female common eiders (<i>Somateria</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.0	12
75	No effect of sperm interactions or egg homogenate on sperm velocity in the blue mussel, <i>Mytilus edulis</i> (Bivalvia: Mytilidae). <i>Canadian Journal of Zoology</i> , 2012, 90, 1291-1296.	1.0	12
76	High antifreeze protein levels in wolffish (<i>Anarhichas lupus</i>) make them an ideal candidate for culture in cold, potentially ice laden waters. <i>Aquaculture</i> , 2007, 272, 667-674.	3.5	11
77	Adjustments of cardiac mitochondrial phenotype in a warmer thermal habitat is associated with oxidative stress in European perch, <i>Perca fluviatilis</i> . <i>Scientific Reports</i> , 2020, 10, 17697.	3.3	11
78	Branchial Na ⁺ K ⁺ ATPase activity in brook charr (<i>Salvelinus fontinalis</i>): Effect of gonadal development in hypo- and hyperosmotic environments. , 2000, 286, 647-655.		9
79	White muscle 20S proteasome activity is negatively correlated to growth rate at low temperature in the spotted wolffish <i>Anarhichas minor</i> . <i>Journal of Fish Biology</i> , 2010, 76, 1565-1575.	1.6	9
80	Divergences in the Control of Mitochondrial Respiration Are Associated With Life-Span Variation in Marine Bivalves. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2021, 76, 796-804.	3.6	9
81	Thermal tolerance and fish heart integrity: fatty acids profiles as predictors of species resilience. , 2020, 8, coaa108.		9
82	Teaching biochemistry to wildlife management and oceanology students: Kinetics of LDH isozymes in Brook Charr. <i>Biochemical Education</i> , 1995, 23, 38-39.	0.1	8
83	Trypsin Activity Measurement in Fish and Mammals. <i>Journal of Aquatic Food Product Technology</i> , 2007, 16, 13-26.	1.4	8
84	Teaching biochemistry to wildlife management and oceanology students: Metabolism, enzyme activities and cold adaptation in goldfish. <i>Biochemical Education</i> , 1995, 23, 170-172.	0.1	7
85	In situ quantification of mitochondrial respiration in permeabilized fibers of a marine invertebrate with low aerobic capacity. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2012, 161, 429-435.	1.8	7
86	Mitochondrial Traits Previously Associated With Species Maximum Lifespan Do Not Correlate With Longevity Across Populations of the Bivalve <i>Arctica islandica</i> . <i>Frontiers in Physiology</i> , 2019, 10, 946.	2.8	7
87	Long-Lived Species of Bivalves Exhibit Low MT-DNA Substitution Rates. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 626042.	3.5	7
88	Exploring Thermal Sensitivities and Adaptations of Oxidative Phosphorylation Pathways. <i>Metabolites</i> , 2022, 12, 360.	2.9	7
89	How does mitochondrial function relate to thermogenic capacity and basal metabolic rate in small birds?. <i>Journal of Experimental Biology</i> , 2022, 225, .	1.7	7
90	Trypsin-Like Enzyme from Atlantic Wolffish (<i>Anarhichas Lupus</i>) Viscera: Purification and Characterization. <i>Journal of Aquatic Food Product Technology</i> , 2008, 17, 11-26.	1.4	6

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91	Metabolic Capacities and Immunocompetence of Sea Scallops (<i>Placopecten magellanicus</i>). <i>Tj ETQq1 1 0.784314 rgBT₆/Overlo</i>	0.9	6
92	Preliminary investigations of the physiological adjustments associated with compensatory growth in juvenile brook charr (<i>Salvelinus fontinalis</i>). <i>Journal of Applied Aquaculture</i> , 2017, 29, 16-32.	1.4	6
93	Linseed oil as a substitute for fish oil in the diet of Arctic charr (<i>Salvelinus alpinus</i>), brook charr (<i>S.</i>) <i>Tj ETQq1 1 0.784314 rgBT₆/Overlo</i>	1.7	6
94	Digestive capacities, inbreeding and growth capacities in juvenile Arctic charr (<i>Salvelinus alpinus</i>). <i>Journal of Fish Biology</i> , 2009, 75, 2695-2708.	1.6	5
95	Functional conservatism among <i>Drosophila simulans</i> flies experiencing different thermal regimes and mitochondrial DNA introgression. <i>Journal of Experimental Zoology Part B: Molecular and Developmental Evolution</i> , 2011, 316B, 188-198.	1.3	5
96	Assessment of mitochondrial functions in <i>Daphnia pulex</i> clones using high-resolution respirometry. <i>Journal of Experimental Zoology</i> , 2015, 323, 292-300.	1.2	5
97	Bioenergetic consequences of sex-specific mitochondrial DNA evolution. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2021, 288, 20211585.	2.6	5
98	The Enzymatic and Metabolic Effects of Extended Food Deprivation in <i>Rana pipiens</i> . <i>Physiological Zoology</i> , 1986, 59, 230-239.	1.5	5
99	Urine analyses to assess the nutritional status of deer in winter. <i>Biochemical Education</i> , 1998, 26, 69-72.	0.1	4
100	Energetic metabolism and biochemical adaptation: A bird flight muscle model. <i>Biochemistry and Molecular Biology Education</i> , 2006, 34, 125-128.	1.2	4
101	Characterization of the early-stages of the wolffish hybrid <i>Anarhichas minor</i> — <i>Anarhichas lupus</i> : conservation and aquaculture applications. <i>Aquatic Living Resources</i> , 2009, 22, 371-377.	1.2	4
102	Cold counteracting membrane fatty acid remodeling is not expressed during quiescence in the bivalve <i>Mercenaria mercenaria</i> . <i>Journal of Experimental Marine Biology and Ecology</i> , 2015, 466, 76-84.	1.5	4
103	Characterization of the growth rate of adult wolffishes <i>Anarhichas minor</i> and <i>A. lupus</i> : Is avoidance of paternal care at the origin of the expression of a sexual size dimorphism?. <i>Aquaculture</i> , 2018, 497, 24-31.	3.5	4
104	Morphological variation in <i>Nereis (Neanthes) virens</i> (Polychaeta: Nereididae) populations. <i>Journal of the Marine Biological Association of the United Kingdom</i> , 2004, 84, 983-985.	0.8	3
105	Hybridization between char species (<i>Salvelinus alpinus</i> and <i>Salvelinus fontinalis</i>): a fast track for novel allometric trajectories. <i>Biology Open</i> , 2018, 7, .	1.2	3
106	Do territorial male three-spined sticklebacks have sperm with different characteristics than nonterritorial males?. <i>Canadian Journal of Zoology</i> , 2009, 87, 1061-1068.	1.0	2
107	Quantitative variation for metabolic traits among brook trout populations inhabiting different environments. <i>Journal of Zoology</i> , 2015, 297, 194-203.	1.7	1
108	Supercomplex Organization of the Electron Transfer System in Marine Bivalves, a Model of Extreme Longevity. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2022, 77, 283-290.	3.6	1

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109	Editorial: Evolutionary and Integrative Approaches for Revealing Adaptive Mechanisms in Marine Animals Along Environmental Gradients. <i>Frontiers in Physiology</i> , 2020, 11, 764.	2.8	0