William R Jeffery

List of Publications by Year
in descending order

115 papers	7,906 citations	50276 46 h-index	60623 81 g-index
130 all docs	130 docs citations	130 times ranked	3977 citing authors

#	Article	IF	Citations
1	Genetic analysis of cavefish reveals molecular convergence in the evolution of albinism. Nature Genetics, 2006, 38, 107-111.	21.4	492
2	Cavefish as a Model System in Evolutionary Developmental Biology. Developmental Biology, 2001, 231, 1-12.	2.0	320
3	Cryptic Variation in Morphological Evolution: HSP90 as a Capacitor for Loss of Eyes in Cavefish. Science, 2013, 342, 1372-1375.	12.6	319
4	Regressive Evolution in <i>Astyanax</i> Cavefish. Annual Review of Genetics, 2009, 43, 25-47.	7.6	268
5	Central Role for the Lens in Cave Fish Eye Degeneration. Science, 2000, 289, 631-633.	12.6	257
6	The cavefish genome reveals candidate genes for eye loss. Nature Communications, 2014, 5, 5307.	12.8	256
7	Evolution of a Behavioral Shift Mediated by Superficial Neuromasts Helps Cavefish Find Food in Darkness. Current Biology, 2010, 20, 1631-1636.	3.9	247
8	Hedgehog signalling controls eye degeneration in blind cavefish. Nature, 2004, 431, 844-847.	27.8	240
9	Migratory neural crest-like cells form body pigmentation in a urochordate embryo. Nature, 2004, 431, 696-699.	27.8	225
10	Adaptive Evolution of Eye Degeneration in the Mexican Blind Cavefish. Journal of Heredity, 2005, 96, 185-196.	2.4	191
11	Pleiotropic functions of embryonic sonic hedgehog expression link jaw and taste bud amplification with eye loss during cavefish evolution. Developmental Biology, 2009, 330, 200-211.	2.0	187
12	A yellow crescent cytoskeletal domain in ascidian eggs and its role in early development. Developmental Biology, 1983, 96, 125-143.	2.0	185
13	Loss of Schooling Behavior in Cavefish through Sight-Dependent and Sight-Independent Mechanisms. Current Biology, 2013, 23, 1874-1883.	3.9	182
14	Evidence for Multiple Genetic Forms with Similar Eyeless Phenotypes in the Blind Cavefish, Astyanax mexicanus. Molecular Biology and Evolution, 2002, 19, 446-455.	8.9	165
15	The role of gene flow in rapid and repeated evolution of caveâ€related traits in Mexican tetra, <i>Astyanax mexicanus</i>. Molecular Ecology, 2018, 27, 4397-4416.	3.9	160
16	Evolution of an adaptive behavior and its sensory receptors promotes eye regression in blind cavefish. BMC Biology, 2012, 10, 108.	3.8	141
17	Evolution and development in cave animals: from fish to crustaceans. Wiley Interdisciplinary Reviews: Developmental Biology, 2012, 1, 823-845.	5.9	130
18	Convergence in feeding posture occurs through different genetic loci in independently evolved cave populations of <i>Astyanax mexicanus</i>. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16933-16938.	7.1	126

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19	Expanded expression of Sonic Hedgehog in<i>Astyanax</i>cavefish:multiple consequences on forebrain development and evolution. Development (Cambridge), 2007, 134, 845-855.	2.5	124
20	A Potential Benefit of Albinism in Astyanax Cavefish: Downregulation of the oca2 Gene Increases Tyrosine and Catecholamine Levels as an Alternative to Melanin Synthesis. PLoS ONE, 2013, 8, e80823.	2.5	108
21	The sensitivity of lateral line receptors and their role in the behavior of Mexican blind cavefish (<i>Astyanax mexicanus</i>). Journal of Experimental Biology, 2014, 217, 886-95.	1.7	99
22	Development and evolution of craniofacial patterning is mediated by eye-dependent and -independent processes in the cavefish Astyanax. Evolution & Development, 2003, 5, 435-446.	2.0	97
23	Evolution of alternate modes of development in ascidians. BioEssays, 1992, 14, 219-226.	2.5	94
24	De Novo Sequencing of Astyanax mexicanus Surface Fish and PachÃ³n Cavefish Transcriptomes Reveals Enrichment of Mutations in Cavefish Putative Eye Genes. PLoS ONE, 2013, 8, e53553.	2.5	93
25	Distinct genetic architecture underlies the emergence of sleep loss and prey-seeking behavior in the Mexican cavefish. BMC Biology, 2015, 13, 15.	3.8	93
26	Trunk lateral cells are neural crest-like cells in the ascidian Ciona intestinalis: Insights into the ancestry and evolution of the neural crest. Developmental Biology, 2008, 324, 152-160.	2.0	90
27	Chapter 8 Evolution and Development in the Cavefish Astyanax. Current Topics in Developmental Biology, 2009, 86, 191-221.	2.2	90
28	Multiple origins of anural development in ascidians inferred from rDNA sequences. Journal of Molecular Evolution, 1995, 40, 413-427.	1.8	89
29	Emerging model systems in evoâ€devo: cavefish and microevolution of development. Evolution & Development, 2008, 10, 265-272.	2.0	86
30	Fundamental research questions in subterranean biology. Biological Reviews, 2020, 95, 1855-1872.	10.4	86
31	Evolution of Eye Regression in the CavefishAstyanax: Apoptosis and thePax-6Gene. American Zoologist, 1998, 38, 685-696.	0.7	85
32	Quantitative Genetic Analysis of Retinal Degeneration in the Blind Cavefish Astyanax mexicanus. PLoS ONE, 2013, 8, e57281.	2.5	84
33	Early and late changes in Pax6 expression accompany eye degeneration during cavefish development. Development Genes and Evolution, 2001, 211, 138-144.	0.9	82
34	An epigenetic mechanism for cavefish eye degeneration. Nature Ecology and Evolution, 2018, 2, 1155-1160.	7.8	78
35	Developmental mechanisms for retinal degeneration in the blind cavefish <i>Astyanax mexicanus</i>. Journal of Comparative Neurology, 2007, 505, 221-233.	1.6	76
36	Environmental DNA in subterranean biology: range extension and taxonomic implications for Proteus. Scientific Reports, 2017, 7, 45054.	3.3	74

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37	Interspecific hybridization between an anural and urodele ascidian: Differential expression of urodele features suggests multiple mechanisms control anural development. Developmental Biology, 1990, 142, 319-334.	2.0	73
38	Synteny and candidate gene prediction using an anchored linkage map of <i>Astyanax mexicanus</i>. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20106-20111.	7.1	73
39	The Lens Has a Specific Influence on Optic Nerve and Tectum Development in the Blind Cavefish <i>Astyanax</i>. Developmental Neuroscience, 2004, 26, 308-317.	2.0	71
40	Ascidian neural crest-like cells: phylogenetic distribution, relationship to larval complexity, and pigment cell fate. Journal of Experimental Zoology Part B: Molecular and Developmental Evolution, 2006, 306B, 470-480.	1.3	62
41	The lens controls cell survival in the retina: Evidence from the blind cavefish Astyanax. Developmental Biology, 2007, 311, 512-523.	2.0	60
42	Evolution of pigment cell regression in the cavefish Astyanax: a late step in melanogenesis. Evolution & Development, 2004, 6, 209-218.	2.0	57
43	Blind cavefish and heat shock protein chaperones: a novel role for hsp90alpha in lens apoptosis. International Journal of Developmental Biology, 2004, 48, 731-738.	0.6	55
44	Shadow response in the blind cavefish<i>Astyanax</i>reveals conservation of a functional pineal eye. Journal of Experimental Biology, 2008, 211, 292-299.	1.7	54
45	Genome Editing Using TALENs in Blind Mexican Cavefish, Astyanax mexicanus. PLoS ONE, 2015, 10, e0119370.	2.5	54
46	Mechanism of an Evolutionary Change in Muscle Cell Differentiation in Ascidians with Different Modes of Development. Developmental Biology, 1996, 174, 379-392.	2.0	50
47	To See or Not to See: Evolution of Eye Degeneration in Mexican Blind Cavefish. Integrative and Comparative Biology, 2003, 43, 531-541.	2.0	50
48	Evolution of Chordate Actin Genes: Evidence from Genomic Organization and Amino Acid Sequences. Journal of Molecular Evolution, 1997, 44, 289-298.	1.8	49
49	Phenotypic plasticity as a mechanism of cave colonization and adaptation. ELife, 2020, 9, .	6.0	48
50	The role of a lens survival pathway including sox2 and Î±A-crystallin in the evolution of cavefish eye degeneration. EvoDevo, 2014, 5, 28.	3.2	47
51	Astyanax surface and cave fish morphs. EvoDevo, 2020, 11, 14.	3.2	47
52	Regeneration of oral siphon pigment organs in the ascidian Ciona intestinalis. Developmental Biology, 2010, 339, 374-389.	2.0	46
53	Determinants of cell and positional fate in ascidian embryos. International Review of Cytology, 2001, 203, 3-62.	6.2	45
54	Evolution of Space Dependent Growth in the Teleost Astyanax mexicanus. PLoS ONE, 2012, 7, e41443.	2.5	45

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55	Closing the wounds: One hundred and twenty five years of regenerative biology in the ascidian <i><scp>C</scp>iona intestinalis</i>. Genesis, 2015, 53, 48-65.	1.6	45
56	Evolution of albinism in cave planthoppers by a convergent defect in the first step of melanin biosynthesis. Evolution & Development, 2012, 14, 196-203.	2.0	44
57	Expression of anMsx homeobox gene in ascidians: Insights into the archetypal chordate expression pattern. , 1996, 205, 308-318.		40
58	Non-optical releasers for aggressive behavior in blind and blinded Astyanax (Teleostei, Characidae). Behavioural Processes, 2005, 70, 144-148.	1.1	38
59	Lens gene expression analysis reveals downregulation of the anti-apoptotic chaperone Î±A-crystallin during cavefish eye degeneration. Development Genes and Evolution, 2007, 217, 771-782.	0.9	38
60	Programmed cell death in the ascidian embryo: modulation by FoxA5 and Manx and roles in the evolution of larval development. Mechanisms of Development, 2002, 118, 111-124.	1.7	37
61	Chordate ancestry of the neural crest: New insights from ascidians. Seminars in Cell and Developmental Biology, 2007, 18, 481-491.	5.0	37
62	Evolution of Ascidian Development. BioScience, 1997, 47, 417-425.	4.9	35
63	Probing teleost eye development by lens transplantation. Methods, 2002, 28, 420-426.	3.8	35
64	Enhanced prey capture skills in Astyanax cavefish larvae are independent from eye loss. EvoDevo, 2014, 5, 35.	3.2	35
65	Behavioural changes controlled by catecholaminergic systems explain recurrent loss of pigmentation in cavefish. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20180243.	2.6	35
66	Maternal genetic effects in Astyanax cavefish development. Developmental Biology, 2018, 441, 209-220.	2.0	35
67	Ooplasmic segregation of the myoplasmic actin network in stratified ascidian eggs. Wilhelm Roux's Archives of Developmental Biology, 1984, 193, 257-262.	1.4	34
68	Heterochronic expression of an adult muscle actin gene during ascidian larval development. Genesis, 1994, 15, 51-63.	2.1	32
69	Brazilian cave heritage under siege. Science, 2022, 375, 1238-1239.	12.6	32
70	PARENTAL GENETIC EFFECTS IN A CAVEFISH ADAPTIVE BEHAVIOR EXPLAIN DISPARITY BETWEEN NUCLEAR AND MITOCHONDRIAL DNA. Evolution; International Journal of Organic Evolution, 2012, 66, 2975-2982.	2.3	31
71	Factors necessary for restoring an evolutionary change in an anural ascidian embryo. Developmental Biology, 1992, 153, 194-205.	2.0	30
72	Retinal homeobox genes and the role of cell proliferation in cavefish eye degeneration. International Journal of Developmental Biology, 2002, 46, 285-94.	0.6	29

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73	Evolutionary tuning of an adaptive behavior requires enhancement of the neuromast sensory system. Communicative and Integrative Biology, 2011, 4, 89-91.	1.4	28
74	Temporal and spatial expression of a cytoskeletal actin gene in the ascidianStyela clava. Genesis, 1990, 11, 2-14.	2.1	26
75	Conservation of retinal circadian rhythms during cavefish eye degeneration. Evolution & Development, 2006, 8, 16-22.	2.0	26
76	Evolution of the chordate regeneration blastema: Differential gene expression and conserved role of notch signaling during siphon regeneration in the ascidian Ciona. Developmental Biology, 2015, 405, 304-315.	2.0	26
77	Lens opacity and photoreceptor degeneration in the zebrafishlens opaque mutant. Developmental Dynamics, 2005, 233, 52-65.	1.8	25
78	Distal regeneration involves the age dependent activity of branchial sac stem cells in the ascidian <i>Ciona intestinalis</i>. Regeneration (Oxford, England), 2015, 2, 1-18.	6.3	25
79	Vestigial Brain Melanocyte Development During Embryogenesis of an Anural Ascidian. (anural) Tj ETQq1 1 0.784314 rgBT /Overlock 1 Differentiation, 1992, 34, 17-25.	1.5	21
80	Differentially expressed genes identified by crossâ€species microarray in the blind cavefish <i>Astyanax</i>. Integrative Zoology, 2009, 4, 99-109.	2.6	21
81	The Recently-Described Ascidian Species Molgula tectiformis Is a Direct Developer. Zoological Science, 1997, 14, 297-303.	0.7	20
82	Cavefish cope with environmental hypoxia by developing more erythrocytes and overexpression of hypoxia-inducible genes. ELife, 2022, 11, .	6.0	19
83	Complex Evolutionary and Genetic Patterns Characterize the Loss of Scleral Ossification in the Blind Cavefish Astyanax mexicanus. PLoS ONE, 2015, 10, e0142208.	2.5	18
84	A hypomorphic cystathionine ÃŸ-synthase gene contributes to cavefish eye loss by disrupting optic vasculature. Nature Communications, 2020, 11, 2772.	12.8	18
85	A gastrulation center in the ascidian egg. Development (Cambridge), 1992, 116, 53-63.	2.5	18
86	Regeneration, Stem Cells, and Aging in the Tunicate Ciona. International Review of Cell and Molecular Biology, 2015, 319, 255-282.	3.2	17
87	Neural Crest Transplantation Reveals Key Roles in the Evolution of Cavefish Development. Integrative and Comparative Biology, 2018, 58, 411-420.	2.0	17
88	Siphon regeneration capacity is compromised during aging in the ascidian Ciona intestinalis. Mechanisms of Ageing and Development, 2012, 133, 629-636.	4.6	16
89	Genome Editing in Astyanax mexicanus Using Transcription Activator-like Effector Nucleases (TALENs). Journal of Visualized Experiments, 2016, , .	0.3	14
90	Progenitor targeting by adult stem cells in Ciona homeostasis, injury, and regeneration. Developmental Biology, 2019, 448, 279-290.	2.0	14

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91	The tunicate<i>Ciona</i>: a model system for understanding the relationship between regeneration and aging. Invertebrate Reproduction and Development, 2015, 59, 17-22.	0.8	13
92	An ankryin-like protein in ascidian eggs and its role in the evolution of direct development. Zygote, 1993, 1, 197-208.	1.1	12
93	Localization of ribosomal protein L5 mRNA in myoplasm during ascidian development. Genesis, 1996, 19, 258-267.	2.1	12
94	Regressive Evolution of Pigmentation in the Cavefish Astyanax. Israel Journal of Ecology and Evolution, 2006, 52, 405-422.	0.6	12
95	Evolutionary tuning of an adaptive behavior requires enhancement of the neuromast sensory system. Communicative and Integrative Biology, 2011, 4, 89-91.	1.4	12
96	The forkhead gene FH1 is involved in evolutionary modification of the ascidian tadpole larva. Mechanisms of Development, 1999, 85, 49-58.	1.7	10
97	Evolution and development of brain sensory organs in molgulid ascidians. Evolution & Development, 2004, 6, 170-179.	2.0	10
98	Pigment Regression and Albinism in Astyanax Cavefish. , 2016, , 155-173.		10
99	Dual roles of the retinal pigment epithelium and lens in cavefish eye degeneration. Journal of Experimental Zoology Part B: Molecular and Developmental Evolution, 2020, 334, 438-449.	1.3	10
100	Role of cell interactions in ascidian muscle and pigment cell specification. Roux's Archives of Developmental Biology, 1993, 202, 103-111.	1.2	8
101	Astyanax Mexicanus. , 2012, , 36-43.		8
102	The Comparative Organismal Approach in Evolutionary Developmental Biology. Current Topics in Developmental Biology, 2016, 116, 489-500.	2.2	8
103	A model for ascidian development and developmental modifications during evolution. Journal of the Marine Biological Association of the United Kingdom, 1994, 74, 35-48.	0.8	7
104	Role of PCNA and ependymal cells in ascidian neural development. Gene, 2002, 287, 97-105.	2.2	7
105	Apoptosis is a generator of Wnt-dependent regeneration and homeostatic cell renewal in the ascidian <i>Ciona</i>. Biology Open, 2021, 10, .	1.2	7
106	Maternal control of visceral asymmetry evolution in Astyanax cavefish. Scientific Reports, 2021, 11, 10312.	3.3	7
107	Astyanax mexicanus: A vertebrate model for evolution, adaptation, and development in caves. , 2019, , 85-93.		6
108	Incremental Temperature Changes for Maximal Breeding and Spawning in Astyanax mexicanus. Journal of Visualized Experiments, 2021, , .	0.3	6

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109	Translational control and the cytoskeleton inPhysarum polycephalum. Cytoskeleton, 1987, 7, 129-137.	4.4	5
110	Ascidian gene-expression profiles. Genome Biology, 2002, 3, reviews1030.1.	9.6	5
111	The location of maternal mRNA in eggs and embryos. BioEssays, 1984, 1, 196-199.	2.5	4
112	Seeing a bright future for a blind fish. Developmental Biology, 2018, 441, 207-208.	2.0	1
113	Regeneration and Aging in the Tunicate Ciona intestinalis. , 2018, , 521-531.		1
114	EYE DEVELOPMENT IN THE CAVEFISH ASTYANAX: ROLE OF PROGRAMMED CELL DEATH AND THE PAX-6 GENE. Biochemical Society Transactions, 1996, 24, 549S-549S.	3.4	0
115	Adapting to the dark side: a review of <i>Cave Biology: Life in Darkness</i>, by Aldemaro Romero. Evolution & Development, 2010, 12, 343-344.	2.0	0