Catherine L Peichel

List of Publications by Year
in descending order

80 papers	9,116 citations	76326 40 h-index	66911 78 g-index
92 all docs	92 docs citations	92 times ranked	8104 citing authors

#	Article	IF	Citations
1	Sex Determination: Why So Many Ways of Doing It?. PLoS Biology, 2014, 12, e1001899.	5.6	916
2	Genomics and the origin of species. Nature Reviews Genetics, 2014, 15, 176-192.	16.3	850
3	Genetic and developmental basis of evolutionary pelvic reduction in threespine sticklebacks. Nature, 2004, 428, 717-723.	27.8	771
4	The genetic architecture of divergence between threespine stickleback species. Nature, 2001, 414, 901-905.	27.8	479
5	The probability of genetic parallelism and convergence in natural populations. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 5039-5047.	2.6	372
6	The Master Sex-Determination Locus in Threespine Sticklebacks Is on a Nascent Y Chromosome. Current Biology, 2004, 14, 1416-1424.	3.9	367
7	The Genetic Architecture of Parallel Armor Plate Reduction in Threespine Sticklebacks. PLoS Biology, 2004, 2, e109.	5.6	332
8	A role for a neo-sex chromosome in stickleback speciation. Nature, 2009, 461, 1079-1083.	27.8	327
9	Genetics of ecological divergence during speciation. Nature, 2014, 511, 307-311.	27.8	264
10	Turnover of Sex Chromosomes in the Stickleback Fishes (Gasterosteidae). PLoS Genetics, 2009, 5, e1000391.	3.5	243
11	Are homologies in vertebrate sex determination due to shared ancestry or to limited options?. Genome Biology, 2010, 11, 205.	9.6	198
12	Contrasting effects of environment and genetics generate a continuum of parallel evolution. Nature Ecology and Evolution, 2017, 1, 158.	7.8	188
13	PARALLEL AND NONPARALLEL ASPECTS OF ECOLOGICAL, PHENOTYPIC, AND GENETIC DIVERGENCE ACROSS REPLICATE POPULATION PAIRS OF LAKE AND STREAM STICKLEBACK. Evolution; International Journal of Organic Evolution, 2012, 66, 402-418.	2.3	187
14	About PAR: The distinct evolutionary dynamics of the pseudoautosomal region. Trends in Genetics, 2011, 27, 358-367.	6.7	184
15	Reverse Evolution of Armor Plates in the Threespine Stickleback. Current Biology, 2008, 18, 769-774.	3.9	160
16	Turnover of sex chromosomes and speciation in fishes. Environmental Biology of Fishes, 2012, 94, 549-558.	1.0	144
17	Transitions in sex determination and sex chromosomes across vertebrate species. Molecular Ecology, 2018, 27, 3950-3963.	3.9	143
18	Adaptive Divergence in the Thyroid Hormone Signaling Pathway in the Stickleback Radiation. Current Biology, 2010, 20, 2124-2130.	3.9	141

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19	Contrasting hybridization rates between sympatric three-spined sticklebacks highlight the fragility of reproductive barriers between evolutionarily young species. Molecular Ecology, 2006, 15, 739-752.	3.9	134
20	The genetic and molecular architecture of phenotypic diversity in sticklebacks. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20150486.	4.0	134
21	Large scale transgenic and cluster deletion analysis of the HoxD complex separate an ancestral regulatory module from evolutionary innovations. Genes and Development, 2001, 15, 2209-2214.	5.9	128
22	Modular Skeletal Evolution in Sticklebacks Is Controlled by Additive and Clustered Quantitative Trait Loci. Genetics, 2014, 197, 405-420.	2.9	122
23	Y Fuse? Sex Chromosome Fusions in Fishes and Reptiles. PLoS Genetics, 2015, 11, e1005237.	3.5	109
24	A key metabolic gene for recurrent freshwater colonization and radiation in fishes. Science, 2019, 364, 886-889.	12.6	109
25	Genetic and Neural Modularity Underlie the Evolution of Schooling Behavior in Threespine Sticklebacks. Current Biology, 2013, 23, 1884-1888.	3.9	108
26	Sexual Dimorphism in the External Morphology of the Threespine Stickleback (Gasterosteus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 T	1.3	104
27	Sex Chromosome Turnover Contributes to Genomic Divergence between Incipient Stickleback Species. PLoS Genetics, 2014, 10, e1004223.	3.5	93
28	Molecular Cytogenetic Evidence of Rearrangements on the Y Chromosome of the Threespine Stickleback Fish. Genetics, 2008, 179, 2173-2182.	2.9	89
29	Purifying Selection Maintains Dosage-Sensitive Genes during Degeneration of the Threespine Stickleback Y Chromosome. Molecular Biology and Evolution, 2015, 32, 1981-1995.	8.9	79
30	Assembly of the threespine stickleback Y chromosome reveals convergent signatures of sex chromosome evolution. Genome Biology, 2020, 21, 177.	8.8	79
31	Phenotypic divergence and reproductive isolation between sympatric forms of Japanese threespine sticklebacks. Biological Journal of the Linnean Society, 0, 91, 671-685.	1.6	78
32	Heritable Differences in Schooling Behavior among Threespine Stickleback Populations Revealed by a Novel Assay. PLoS ONE, 2011, 6, e18316.	2.5	66
33	Admixture mapping of male nuptial colour and body shape in a recently formed hybrid population of threespine stickleback. Molecular Ecology, 2012, 21, 5265-5279.	3.9	65
34	New Genomic Tools for Molecular Studies of Evolutionary Change in Threespine Sticklebacks. Behaviour, 2004, 141, 1331-1344.	0.8	64
35	Does plasticity enhance or dampen phenotypic parallelism? A test with three lakeâ€“stream stickleback pairs. Journal of Evolutionary Biology, 2016, 29, 126-143.	1.7	63
36	Sex Differences in Recombination in Sticklebacks. G3: Genes, Genomes, Genetics, 2018, 8, 1971-1983.	1.8	63

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37	Improvement of the Threespine Stickleback Genome Using a Hi-C-Based Proximity-Guided Assembly. Journal of Heredity, 2017, 108, 693-700.	2.4	62
38	Extent of QTL Reuse During Repeated Phenotypic Divergence of Sympatric Threespine Stickleback. Genetics, 2015, 201, 1189-1200.	2.9	61
39	Parallel Evolution of Pitx1 Underlies Pelvic Reduction in Scottish Threespine Stickleback (Gasterosteus aculeatus). Journal of Heredity, 2007, 98, 581-586.	2.4	60
40	Genetic Coupling of Female Mate Choice with Polygenic Ecological Divergence Facilitates Stickleback Speciation. Current Biology, 2017, 27, 3344-3349.e4.	3.9	56
41	Genetic Architecture of Variation in the Lateral Line Sensory System of Threespine Sticklebacks. G3: Genes, Genomes, Genetics, 2012, 2, 1047-1056.	1.8	47
42	Fishing for the secrets of vertebrate evolution in threespine sticklebacks. Developmental Dynamics, 2005, 234, 815-823.	1.8	46
43	Evolution of Schooling Behavior in Threespine Sticklebacks Is Shaped by the<i>Eda</i>Gene. Genetics, 2016, 203, 677-681.	2.9	43
44	Expanding the classical paradigm: what we have learnt from vertebrates about sex chromosome evolution. Philosophical Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20200097.	4.0	43
45	Pleiotropic effects of a single gene on skeletal development and sensory system patterning in sticklebacks. EvoDevo, 2014, 5, 5.	3.2	37
46	Manyâ€toâ€one formâ€toâ€function mapping weakens parallel morphological evolution. Evolution; International Journal of Organic Evolution, 2017, 71, 2738-2749.	2.3	37
47	Genetics of adaptation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	37
48	Divergence in Sex Steroid Hormone Signaling between Sympatric Species of Japanese Threespine Stickleback. PLoS ONE, 2011, 6, e29253.	2.5	35
49	Ecological factors and morphological traits are associated with repeated genomic differentiation between lake and stream stickleback. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180241.	4.0	35
50	Social Behavior: How Do Fish Find Their Shoal Mate?. Current Biology, 2004, 14, R503-R504.	3.9	34
51	Adaptation via pleiotropy and linkage: Association mapping reveals a complex genetic architecture within the stickleback<i>Eda</i>locus. Evolution Letters, 2020, 4, 282-301.	3.3	34
52	Social Regulation of Gene Expression in Threespine Sticklebacks. PLoS ONE, 2015, 10, e0137726.	2.5	32
53	Genetic Mapping of Natural Variation in Schooling Tendency in the Threespine Stickleback. G3: Genes, Genomes, Genetics, 2015, 5, 761-769.	1.8	31
54	Molecular and developmental contributions to divergent pigment patterns in marine and freshwater sticklebacks. Evolution & Development, 2012, 14, 351-362.	2.0	30

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55	Genetic Architecture of Conspicuous Red Ornaments in Female Threespine Stickleback. G3: Genes, Genomes, Genetics, 2016, 6, 579-588.	1.8	30
56	Perspectives on the Genetic Architecture of Divergence in Body Shape in Sticklebacks. Integrative and Comparative Biology, 2010, 50, 1057-1066.	2.0	29
57	Analysis of ancestry heterozygosity suggests that hybrid incompatibilities in threespine stickleback are environment dependent. PLoS Biology, 2022, 20, e3001469.	5.6	29
58	Heterogeneous Histories of Recombination Suppression on Stickleback Sex Chromosomes. Molecular Biology and Evolution, 2021, 38, 4403-4418.	8.9	26
59	Sensory trait variation contributes to biased dispersal of threespine stickleback in flowing water. Journal of Evolutionary Biology, 2017, 30, 681-695.	1.7	22
60	Divergence of male courtship displays between sympatric forms of anadromous threespine stickleback. Behaviour, 2008, 145, 443-461.	0.8	20
61	Differences in rheotactic responses contribute to divergent habitat use between parapatric lake and stream threespine stickleback. Evolution; International Journal of Organic Evolution, 2015, 69, 2517-2524.	2.3	19
62	Pleiotropy facilitates parallel adaptation in sticklebacks. Molecular Ecology, 2022, 31, 1476-1486.	3.9	19
63	Chromosomal Fusions Facilitate Adaptation to Divergent Environments in Threespine Stickleback. Molecular Biology and Evolution, 2022, 39, .	8.9	19
64	Identification of the centromeric repeat in the threespine stickleback fish (Gasterosteus aculeatus). Chromosome Research, 2015, 23, 767-779.	2.2	16
65	EvoChromo: towards a synthesis of chromatin biology and evolution. Development (Cambridge), 2019, 146, .	2.5	16
66	Searching for signatures of sexually antagonistic selection on stickleback sex chromosomes. Philosophical Transactions of the Royal Society B: Biological Sciences, 2022, 377, .	4.0	15
67	Novel methods for discriminating behavioral differences between stickleback individuals and populations in a laboratory shoaling assay. Behavioral Ecology and Sociobiology, 2011, 65, 1147-1157.	1.4	14
68	Centromere inactivation on a neo-Y fusion chromosome in threespine stickleback fish. Chromosome Research, 2016, 24, 437-450.	2.2	14
69	Genetic architecture of a key reproductive isolation trait differs between sympatric and non-sympatric sister species of Lake Victoria cichlids. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20200270.	2.6	14
70	Identification of a candidate sex determination gene in <i>Culaea inconstans</i> suggests convergent recruitment of an <i>Amh</i> duplicate in two lineages of stickleback. Journal of Evolutionary Biology, 2022, 35, 1683-1695.	1.7	14
71	Evolution of the canonical sex chromosomes of the guppy and its relatives. G3: Genes, Genomes, Genetics, 2022, 12, .	1.8	13
72	Genetic and Physical Mapping of the Mouse <i>Ulnaless</i> Locus. Genetics, 1996, 144, 1757-1767.	2.9	12

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73	Evaluation of mouse Sfrp3/Frzb1 as a candidate for the lst, Ul, and Far mutants on Chromosome 2. Mammalian Genome, 1998, 9, 385-387.	2.2	9
74	Mapping the midkine family of developmentally regulated signaling molecules. Mammalian Genome, 1993, 4, 632-638.	2.2	8
75	Convergence and divergence in sex-chromosome evolution. Nature Genetics, 2017, 49, 321-322.	21.4	7
76	Chromosome Evolution: Molecular Mechanisms and Evolutionary Consequences. Journal of Heredity, 2017, 108, 1-2.	2.4	7
77	Automated quantification of the schooling behaviour of sticklebacks. Eurasip Journal on Image and Video Processing, 2013, 2013, .	2.6	6
78	Sticklebacks. Current Biology, 2003, 13, R942-R943.	3.9	4
79	Phosphorus limitation does not drive loss of bony lateral plates in freshwater stickleback (<i>Gasterosteus aculeatus</i>). Evolution; International Journal of Organic Evolution, 2020, 74, 2088-2104.	2.3	1
80	Notes from the field: How a molecular geneticist got wet. Genesis, 2004, 40, 146-150.	1.6	0