Karen L Carleton

List of Publications by Year
in descending order

90 papers	6,647 citations	87888 38 h-index	69250 77 g-index
96 all docs	96 docs citations	96 times ranked	4535 citing authors

#	Article	IF	Citations
1	A novel exome probe set captures phototransduction genes across birds (Aves) enabling efficient analysis of vision evolution. Molecular Ecology Resources, 2022, 22, 587-601.	4.8	3
2	Chromosomeâ€level assembly of southern catfish (<i>silurus meridionalis</i>) provides insights into visual adaptation to nocturnal and benthic lifestyles. Molecular Ecology Resources, 2021, 21, 1575-1592.	4.8	20
3	Movement of transposable elements contributes to cichlid diversity. Molecular Ecology, 2020, 29, 4956-4969.	3.9	18
4	Visual pigment evolution in Characiformes: The dynamic interplay of teleost wholeâ€genome duplication, surviving opsins and spectral tuning. Molecular Ecology, 2020, 29, 2234-2253.	3.9	15
5	<i>Tbx2a</i>Modulates Switching of<i>RH2</i>and<i>LWS</i>Opsin Gene Expression. Molecular Biology and Evolution, 2020, 37, 2002-2014.	8.9	20
6	The Right Light: Tiger Salamander Capture Rates and Spectral Sensitivity. Wildlife Society Bulletin, 2020, 44, 68-76.	1.6	2
7	Seeing the rainbow: mechanisms underlying spectral sensitivity in teleost fishes. Journal of Experimental Biology, 2020, 223, .	1.7	72
8	Axes of visual adaptation in the ecologically diverse family Cichlidae. Seminars in Cell and Developmental Biology, 2020, 106, 43-52.	5.0	20
9	Diurnal variation in opsin expression and common housekeeping genes necessitates comprehensive normalization methods for quantitative realâ€time PCR analyses. Molecular Ecology Resources, 2019, 19, 1447-1460.	4.8	27
10	Color discrimination thresholds in a cichlid fish: <i>Metriaclima benetos</i>. Journal of Experimental Biology, 2019, 222, .	1.7	15
11	Vision using multiple distinct rod opsins in deep-sea fishes. Science, 2019, 364, 588-592.	12.6	151
12	Cardinalfishes (Apogonidae) show visual system adaptations typical of nocturnally and diurnally active fish. Molecular Ecology, 2019, 28, 3025-3041.	3.9	24
13	Chromosome-scale assemblies reveal the structural evolution of African cichlid genomes. GigaScience, 2019, 8, .	6.4	83
14	Variable vision in variable environments: the visual system of an invasive cichlid (<i>Cichla) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 Td	1.7	22
15	Visual adaptation could aid sympatric speciation in a deep crater lake. Molecular Ecology, 2019, 28, 5007-5009.	3.9	1
16	A detailed investigation of the visual system and visual ecology of the Barrier Reef anemonefish, Amphiprion akindynos. Scientific Reports, 2019, 9, 16459.	3.3	27
17	Multiple trans QTL and one cis-regulatory deletion are associated with the differential expression of cone opsins in African cichlids. BMC Genomics, 2018, 19, 945.	2.8	19
18	Short term colour vision plasticity on the reef: Changes in opsin expression under varying light conditions differ between ecologically distinct reef fish species. Journal of Experimental Biology, 2018, 221, .	1.7	26

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19	Reviewing guppy color vision: integrating the molecular and physiological variation in visual tuning of a classic system for sensory drive. Environmental Epigenetics, 2018, 64, 535-545.	1.8	17
20	Retinal specialization through spatially varying cell densities and opsin coexpression in cichlid fish. Journal of Experimental Biology, 2017, 220, 266-277.	1.7	40
21	Behavioral color vision in a cichlid fish: <i>Metriaclima benetos</i>. Journal of Experimental Biology, 2017, 220, 2887-2899.	1.7	22
22	The opsin genes of amazonian cichlids. Molecular Ecology, 2017, 26, 1343-1356.	3.9	44
23	Why UV vision and red vision are important for damselfish (Pomacentridae): structural and expression variation in opsin genes. Molecular Ecology, 2017, 26, 1323-1342.	3.9	42
24	Adult plasticity in African cichlids: Rapid changes in opsin expression in response to environmental light differences. Molecular Ecology, 2017, 26, 6036-6052.	3.9	52
25	Determination of the Genetic Architecture Underlying Short Wavelength Sensitivity in Lake Malawi Cichlids. Journal of Heredity, 2017, 108, 379-390.	2.4	12
26	Depthâ€dependent plasticity in opsin gene expression varies between damselfish (Pomacentridae) species. Molecular Ecology, 2016, 25, 3645-3661.	3.9	53
27	The Use of Group Activities in Introductory Biology Supports Learning Gains and Uniquely Benefits High-Achieving Students. Journal of Microbiology and Biology Education, 2016, 17, 360-369.	1.0	21
28	Group Active Engagements Using Quantitative Modeling of Physiology Concepts in Large-Enrollment Biology Classes. Journal of Microbiology and Biology Education, 2016, 17, 487-489.	1.0	3
29	Proximate and ultimate causes of variable visual sensitivities: Insights from cichlid fish radiations. Genesis, 2016, 54, 299-325.	1.6	64
30	Multiple Genetic Mechanisms Contribute to Visual Sensitivity Variation in the Labridae. Molecular Biology and Evolution, 2016, 33, 201-215.	8.9	34
31	Variable light environments induce plastic spectral tuning by regional opsin coexpression in the African cichlid fish, <i>Metriaclima zebra</i>. Molecular Ecology, 2015, 24, 4193-4204.	3.9	63
32	Sensory modalities in cichlid fish behavior. Current Opinion in Behavioral Sciences, 2015, 6, 115-124.	3.9	18
33	Ancestral duplications and highly dynamic opsin gene evolution in percomorph fishes. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1493-1498.	7.1	129
34	Colour vision in marine organisms. Current Opinion in Neurobiology, 2015, 34, 86-94.	4.2	80
35	Spectral tuning by opsin coexpression in retinal regions that view different parts of the visual field. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141980.	2.6	74
36	The genomic substrate for adaptive radiation in African cichlid fish. Nature, 2014, 513, 375-381.	27.8	874

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37	Interspecific Variation in Rx1 Expression Controls Opsin Expression and Causes Visual System Diversity in African Cichlid Fishes. Molecular Biology and Evolution, 2014, 31, 2297-2308.	8.9	31
38	Visual Photopigment Evolution in Speciation. , 2014, , 241-267.		8
39	Lineage-Specific Expansion of Vomeronasal Type 2 Receptor-Like (OlfC) Genes in Cichlids May Contribute to Diversification of Amino Acid Detection Systems. Genome Biology and Evolution, 2013, 5, 711-722.	2.5	26
40	Identification of Amino Acid Residues Responsible for the Selectivity of Tadalafil Binding to Two Closely Related Phosphodiesterases, PDE5 and PDE6. Journal of Biological Chemistry, 2012, 287, 41406-41416.	3.4	29
41	An Evaluation of the Role of Sensory Drive in the Evolution of Lake Malawi Cichlid Fishes. International Journal of Evolutionary Biology, 2012, 2012, 1-12.	1.0	15
42	Quantification of Transcript Levels with Quantitative RT-PCR. Methods in Molecular Biology, 2012, 772, 279-295.	0.9	20
43	Opsin Evolution in Damselfish: Convergence, Reversal, and Parallel Evolution Across Tuning Sites. Journal of Molecular Evolution, 2012, 75, 79-91.	1.8	39
44	Evolution of cichlid vision via trans-regulatory divergence. BMC Evolutionary Biology, 2012, 12, 251.	3.2	31
45	Limited variation in visual sensitivity among bowerbird species suggests that there is no link between spectral tuning and variation in display colouration. Journal of Experimental Biology, 2012, 215, 1090-1105.	1.7	37
46	Intraspecific cone opsin expression variation in the cichlids of Lake Malawi. Molecular Ecology, 2011, 20, 299-310.	3.9	33
47	New evidence for the role of heterochrony in the repeated evolution of cichlid opsin expression. Evolution & Development, 2011, 13, 193-203.	2.0	38
48	Divergence in cis-regulatory sequences surrounding the opsin gene arrays of African cichlid fishes. BMC Evolutionary Biology, 2011, 11, 120.	3.2	35
49	Sea urchin tube feet are photosensory organs that express a rhabdomeric-like opsin and PAX6. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 3371-3379.	2.6	64
50	Allelic Variation in Malawi Cichlid Opsins: A Tale of Two Genera. Journal of Molecular Evolution, 2010, 70, 593-604.	1.8	11
51	An EST resource for tilapia based on 17 normalized libraries and assembly of 116,899 sequence tags. BMC Genomics, 2010, 11, 278.	2.8	39
52	The relationship between lens transmission and opsin gene expression in cichlids from Lake Malawi. Vision Research, 2010, 50, 357-363.	1.4	32
53	Plasticity of opsin gene expression in cichlids from Lake Malawi. Molecular Ecology, 2010, 19, 2064-2074.	3.9	84
54	The fish eye view: are cichlids conspicuous?. Journal of Experimental Biology, 2010, 213, 2243-2255.	1.7	45

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55	Parallel Evolution of Opsin Gene Expression in African Cichlid Fishes. Molecular Biology and Evolution, 2010, 27, 2839-2854.	8.9	95
56	The Eyes Have It: Regulatory and Structural Changes Both Underlie Cichlid Visual Pigment Diversity. PLoS Biology, 2009, 7, e1000266.	5.6	148
57	Gene duplication and differential gene expression play an important role in the diversification of visual pigments in fish. Integrative and Comparative Biology, 2009, 49, 630-643.	2.0	110
58	Cichlid fish visual systems: mechanisms of spectral tuning. Integrative Zoology, 2009, 4, 75-86.	2.6	114
59	Visual sensitivities tuned by heterochronic shifts in opsin gene expression. BMC Biology, 2008, 6, 22.	3.8	140
60	Speciation through sensory drive in cichlid fish. Nature, 2008, 455, 620-626.	27.8	947
61	Evolution of the Cichlid Visual Palette through Ontogenetic Subfunctionalization of the Opsin Gene Arrays. Molecular Biology and Evolution, 2006, 23, 1538-1547.	8.9	177
62	Genetic and environmental variation in the visual properties of bluefin killifish, Lucania goodei. Journal of Evolutionary Biology, 2005, 18, 516-523.	1.7	105
63	Colour vision and speciation in Lake Victoria cichlids of the genus Pundamilia. Molecular Ecology, 2005, 14, 4341-4353.	3.9	151
64	Mix and Match Color Vision: Tuning Spectral Sensitivity by Differential Opsin Gene Expression in Lake Malawi Cichlids. Current Biology, 2005, 15, 1734-1739.	3.9	194
65	Quantification of vitellogeninâ€"mRNA during maturation and breeding of a burying beetle. Journal of Insect Physiology, 2005, 51, 323-331.	2.0	13
66	A BAC-based physical map of the Nile tilapia genome. BMC Genomics, 2005, 6, 89.	2.8	72
67	Rod and Cone Opsin Families Differ in Spectral Tuning Domains but Not Signal Transducing Domains as Judged by Saturated Evolutionary Trace Analysis. Journal of Molecular Evolution, 2005, 61, 75-89.	1.8	27
68	A Second-Generation Genetic Linkage Map of Tilapia (Oreochromis spp.)Sequence data from this article have been deposited with the EMBL/GenBank data libraries under accession nos. G68180, G68324 and BV005269, BV005594.. Genetics, 2005, 170, 237-244.	2.9	243
69	Adaptive Molecular Evolution in the Opsin Genes of Rapidly Speciating Cichlid Species. Molecular Biology and Evolution, 2005, 22, 1412-1422.	8.9	138
70	Population variation in opsin expression in the bluefin killifish, Lucania goodei : a real-time PCR study. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2004, 190, 147-154.	1.6	105
71	Evolutionary Genetics: Rose-colored goggles. Heredity, 2003, 90, 116-117.	2.6	5
72	Rapid isolation of CA microsatellites from the tilapia genome. Animal Genetics, 2002, 33, 140-144.	1.7	126

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73	Cone Opsin Genes of African Cichlid Fishes: Tuning Spectral Sensitivity by Differential Gene Expression. Molecular Biology and Evolution, 2001, 18, 1540-1550.	8.9	229
74	Visual pigments of African cichlid fishes: evidence for ultraviolet vision from microspectrophotometry and DNA sequences. Vision Research, 2000, 40, 879-890.	1.4	103
75	Base Substitution in Fish Mitochondrial DNA: Patterns and Rates. , 1997, , 13-24.		19
76	Ultrasensitive dual-beam absorption and gain spectroscopy: applications for near-infrared and visible diode laser sensors. Applied Optics, 1995, 34, 3240.	2.1	103
77	Spacecraft thermal energy accommodation from atomic recombination. Journal of Thermophysics and Heat Transfer, 1992, 6, 650-655.	1.6	44
78	Spacecraft thermal energy accommodation from atomic recombination. , 1991, , .		0
79	H2/O2 three-body rates at high temperatures. , 1991, , .		0
80	The effect of parent rotational state on fragment anisotropy and application to formaldehyde. Journal of Chemical Physics, 1991, 94, 1947-1953.	3.0	33
81	Dynamics of electronic energy quenching: The reaction of H2(B)+He. Journal of Chemical Physics, 1990, 93, 323-332.	3.0	14
82	Photodissociation dynamics of formaldehyde: H2 rotational distributions and product quantum state correlations. Journal of Chemical Physics, 1990, 92, 377-393.	3.0	90
83	Photodissociation dynamics of formaldehyde: H2 (v,J) vector correlations. Journal of Chemical Physics, 1990, 93, 3907-3918.	3.0	41
84	Vector and product quantum-state correlations for photofragmentation of formaldehyde. Journal of the Chemical Society, Faraday Transactions 2, 1989, 85, 1155.	1.1	28
85	Surface structures and growth mechanism of Ga ON Si(100) determined by LEED and Auger electron spectroscopy. Surface Science, 1988, 204, 455-472.	1.9	101
86	Desorption of a two-state system: Laser probing of gallium atom spin-orbit states from silicon (100). Surface Science, 1988, 199, 447-466.	1.9	13
87	Laser Probing of the Dynamics of Ga Interactions on Si(lO0). Materials Research Society Symposia Proceedings, 1988, 116, 45.	0.1	1
88	Laser probing of gallium atom interactions with silicon(100) surfaces. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1987, 5, 1141.	1.6	30
89	Detection of nitrogen rotational distributions by resonant 2 + 2 multiphoton ionization through the a1Îg state. Chemical Physics Letters, 1985, 115, 492-495.	2.6	48
90	How reef fish see their colourful world: why UV-and red vision are important for damselfish (Pomacentridae). Frontiers in Marine Science, 0, 6, .	2.5	1