

# Karen L Carleton

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

89  
papers

5,377  
citations

36  
h-index

72  
g-index

96  
ext. papers

6,205  
ext. citations

5.8  
avg, IF

5.53  
L-index

#	Paper	IF	Citations
89	Chromosome-level assembly of southern catfish ( <i>Silurus meridionalis</i> ) provides insights into visual adaptation to nocturnal and benthic lifestyles. <i>Molecular Ecology Resources</i> , <b>2021</b> , 21, 1575-1592	8.4	3
88	Visual pigment evolution in Characiformes: The dynamic interplay of teleost whole-genome duplication, surviving opsins and spectral tuning. <i>Molecular Ecology</i> , <b>2020</b> , 29, 2234-2253	5.7	7
87	Tbx2a Modulates Switching of RH2 and LWS Opsin Gene Expression. <i>Molecular Biology and Evolution</i> , <b>2020</b> , 37, 2002-2014	8.3	9
86	The Right Light: Tiger Salamander Capture Rates and Spectral Sensitivity. <i>Wildlife Society Bulletin</i> , <b>2020</b> , 44, 68-76	1.4	
85	Seeing the rainbow: mechanisms underlying spectral sensitivity in teleost fishes. <i>Journal of Experimental Biology</i> , <b>2020</b> , 223,	3	31
84	Axes of visual adaptation in the ecologically diverse family Cichlidae. <i>Seminars in Cell and Developmental Biology</i> , <b>2020</b> , 106, 43-52	7.5	7
83	Movement of transposable elements contributes to cichlid diversity. <i>Molecular Ecology</i> , <b>2020</b> , 29, 4956-4969	5.7	8
82	Color discrimination thresholds in a cichlid fish. <i>Journal of Experimental Biology</i> , <b>2019</b> , 222,	3	10
81	Vision using multiple distinct rod opsins in deep-sea fishes. <i>Science</i> , <b>2019</b> , 364, 588-592	33.3	88
80	Cardinalfishes (Apogonidae) show visual system adaptations typical of nocturnally and diurnally active fish. <i>Molecular Ecology</i> , <b>2019</b> , 28, 3025-3041	5.7	13
79	Chromosome-scale assemblies reveal the structural evolution of African cichlid genomes. <i>GigaScience</i> , <b>2019</b> , 8,	7.6	46
78	Variable vision in variable environments: the visual system of an invasive cichlid () in Lake Gatun, Panama. <i>Journal of Experimental Biology</i> , <b>2019</b> , 222,	3	15
77	Diurnal variation in opsin expression and common housekeeping genes necessitates comprehensive normalization methods for quantitative real-time PCR analyses. <i>Molecular Ecology Resources</i> , <b>2019</b> , 19, 1447-1460	8.4	9
76	A detailed investigation of the visual system and visual ecology of the Barrier Reef anemonefish, <i>Amphiprion akindynos</i> . <i>Scientific Reports</i> , <b>2019</b> , 9, 16459	4.9	16
75	Reviewing guppy color vision: integrating the molecular and physiological variation in visual tuning of a classic system for sensory drive. <i>Environmental Epigenetics</i> , <b>2018</b> , 64, 535-545	2.4	11
74	Multiple trans QTL and one cis-regulatory deletion are associated with the differential expression of cone opsins in African cichlids. <i>BMC Genomics</i> , <b>2018</b> , 19, 945	4.5	13
73	Short-term colour vision plasticity on the reef: changes in opsin expression under varying light conditions differ between ecologically distinct fish species. <i>Journal of Experimental Biology</i> , <b>2018</b> , 221,	3	15

72	Behavioral color vision in a cichlid fish:. <i>Journal of Experimental Biology</i> , <b>2017</b> , 220, 2887-2899	3	16
71	The opsin genes of amazonian cichlids. <i>Molecular Ecology</i> , <b>2017</b> , 26, 1343-1356	5.7	30
70	Why UV vision and red vision are important for damselfish (Pomacentridae): structural and expression variation in opsin genes. <i>Molecular Ecology</i> , <b>2017</b> , 26, 1323-1342	5.7	32
69	Retinal specialization through spatially varying cell densities and opsin coexpression in cichlid fish. <i>Journal of Experimental Biology</i> , <b>2017</b> , 220, 266-277	3	33
68	Adult plasticity in African cichlids: Rapid changes in opsin expression in response to environmental light differences. <i>Molecular Ecology</i> , <b>2017</b> , 26, 6036-6052	5.7	35
67	Determination of the Genetic Architecture Underlying Short Wavelength Sensitivity in Lake Malawi Cichlids. <i>Journal of Heredity</i> , <b>2017</b> , 108, 379-390	2.4	8
66	Multiple Genetic Mechanisms Contribute to Visual Sensitivity Variation in the Labridae. <i>Molecular Biology and Evolution</i> , <b>2016</b> , 33, 201-15	8.3	30
65	Group Active Engagements Using Quantitative Modeling of Physiology Concepts in Large-Enrollment Biology Classes. <i>Journal of Microbiology and Biology Education</i> , <b>2016</b> , 17, 487-489	1.3	2
64	Proximate and ultimate causes of variable visual sensitivities: Insights from cichlid fish radiations. <i>Genesis</i> , <b>2016</b> , 54, 299-325	1.9	44
63	Depth-dependent plasticity in opsin gene expression varies between damselfish (Pomacentridae) species. <i>Molecular Ecology</i> , <b>2016</b> , 25, 3645-61	5.7	37
62	The Use of Group Activities in Introductory Biology Supports Learning Gains and Uniquely Benefits High-Achieving Students. <i>Journal of Microbiology and Biology Education</i> , <b>2016</b> , 17, 360-369	1.3	11
61	Ancestral duplications and highly dynamic opsin gene evolution in percomorph fishes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 1493-8	11.5	99
60	Colour vision in marine organisms. <i>Current Opinion in Neurobiology</i> , <b>2015</b> , 34, 86-94	7.6	63
59	Variable light environments induce plastic spectral tuning by regional opsin coexpression in the African cichlid fish, <i>Metriaclima zebra</i> . <i>Molecular Ecology</i> , <b>2015</b> , 24, 4193-204	5.7	54
58	Sensory modalities in cichlid fish behavior. <i>Current Opinion in Behavioral Sciences</i> , <b>2015</b> , 6, 115-124	4	14
57	Spectral tuning by opsin coexpression in retinal regions that view different parts of the visual field. <i>Proceedings of the Royal Society B: Biological Sciences</i> , <b>2014</b> , 281,	4.4	62
56	The genomic substrate for adaptive radiation in African cichlid fish. <i>Nature</i> , <b>2014</b> , 513, 375-381	50.4	656
55	Interspecific variation in Rx1 expression controls opsin expression and causes visual system diversity in African cichlid fishes. <i>Molecular Biology and Evolution</i> , <b>2014</b> , 31, 2297-308	8.3	28

54	Visual Photopigment Evolution in Speciation <b>2014</b> , 241-267		4
53	Lineage-specific expansion of vomeronasal type 2 receptor-like (OlFC) genes in cichlids may contribute to diversification of amino acid detection systems. <i>Genome Biology and Evolution</i> , <b>2013</b> , 5, 711-22	3.9	20
52	Opsin evolution in damselfish: convergence, reversal, and parallel evolution across tuning sites. <i>Journal of Molecular Evolution</i> , <b>2012</b> , 75, 79-91	3.1	33
51	Evolution of cichlid vision via trans-regulatory divergence. <i>BMC Evolutionary Biology</i> , <b>2012</b> , 12, 251	3	24
50	Limited variation in visual sensitivity among bowerbird species suggests that there is no link between spectral tuning and variation in display colouration. <i>Journal of Experimental Biology</i> , <b>2012</b> , 215, 1090-105	3	29
49	Identification of amino acid residues responsible for the selectivity of tadalafil binding to two closely related phosphodiesterases, PDE5 and PDE6. <i>Journal of Biological Chemistry</i> , <b>2012</b> , 287, 41406-16	5.4	26
48	An evaluation of the role of sensory drive in the evolution of lake Malawi cichlid fishes. <i>International Journal of Evolutionary Biology</i> , <b>2012</b> , 2012, 647420		13
47	Quantification of transcript levels with quantitative RT-PCR. <i>Methods in Molecular Biology</i> , <b>2011</b> , 772, 279-95	1.4	15
46	Intraspecific cone opsin expression variation in the cichlids of Lake Malawi. <i>Molecular Ecology</i> , <b>2011</b> , 20, 299-310	5.7	29
45	New evidence for the role of heterochrony in the repeated evolution of cichlid opsin expression. <i>Evolution &amp; Development</i> , <b>2011</b> , 13, 193-203	2.6	30
44	Divergence in cis-regulatory sequences surrounding the opsin gene arrays of African cichlid fishes. <i>BMC Evolutionary Biology</i> , <b>2011</b> , 11, 120	3	28
43	Sea urchin tube feet are photosensory organs that express a rhabdomeric-like opsin and PAX6. <i>Proceedings of the Royal Society B: Biological Sciences</i> , <b>2011</b> , 278, 3371-9	4.4	49
42	Plasticity of opsin gene expression in cichlids from Lake Malawi. <i>Molecular Ecology</i> , <b>2010</b> , 19, 2064-74	5.7	74
41	The fish eye view: are cichlids conspicuous?. <i>Journal of Experimental Biology</i> , <b>2010</b> , 213, 2243-55	3	43
40	Parallel evolution of opsin gene expression in African cichlid fishes. <i>Molecular Biology and Evolution</i> , <b>2010</b> , 27, 2839-54	8.3	79
39	Allelic variation in Malawi cichlid opsins: a tale of two genera. <i>Journal of Molecular Evolution</i> , <b>2010</b> , 70, 593-604	3.1	11
38	An EST resource for tilapia based on 17 normalized libraries and assembly of 116,899 sequence tags. <i>BMC Genomics</i> , <b>2010</b> , 11, 278	4.5	38
37	The relationship between lens transmission and opsin gene expression in cichlids from Lake Malawi. <i>Vision Research</i> , <b>2010</b> , 50, 357-63	2.1	31

36	The eyes have it: regulatory and structural changes both underlie cichlid visual pigment diversity. <i>PLoS Biology</i> , <b>2009</b> , 7, e1000266	9.7	116
35	Gene duplication and differential gene expression play an important role in the diversification of visual pigments in fish. <i>Integrative and Comparative Biology</i> , <b>2009</b> , 49, 630-43	2.8	97
34	Cichlid fish visual systems: mechanisms of spectral tuning. <i>Integrative Zoology</i> , <b>2009</b> , 4, 75-86	1.9	95
33	Speciation through sensory drive in cichlid fish. <i>Nature</i> , <b>2008</b> , 455, 620-6	50.4	796
32	Visual sensitivities tuned by heterochronic shifts in opsin gene expression. <i>BMC Biology</i> , <b>2008</b> , 6, 22	7.3	114
31	Evolution of the cichlid visual palette through ontogenetic subfunctionalization of the opsin gene arrays. <i>Molecular Biology and Evolution</i> , <b>2006</b> , 23, 1538-47	8.3	161
30	Genetic and environmental variation in the visual properties of bluefin killifish, <i>Lucania goodei</i> . <i>Journal of Evolutionary Biology</i> , <b>2005</b> , 18, 516-23	2.3	91
29	Colour vision and speciation in Lake Victoria cichlids of the genus <i>Pundamilia</i> . <i>Molecular Ecology</i> , <b>2005</b> , 14, 4341-53	5.7	133
28	Mix and match color vision: tuning spectral sensitivity by differential opsin gene expression in Lake Malawi cichlids. <i>Current Biology</i> , <b>2005</b> , 15, 1734-9	6.3	174
27	Quantification of vitellogenin-mRNA during maturation and breeding of a burying beetle. <i>Journal of Insect Physiology</i> , <b>2005</b> , 51, 323-31	2.4	13
26	A BAC-based physical map of the Nile tilapia genome. <i>BMC Genomics</i> , <b>2005</b> , 6, 89	4.5	64
25	Rod and cone opsin families differ in spectral tuning domains but not signal transducing domains as judged by saturated evolutionary trace analysis. <i>Journal of Molecular Evolution</i> , <b>2005</b> , 61, 75-89	3.1	25
24	A second-generation genetic linkage map of tilapia ( <i>Oreochromis</i> spp.). <i>Genetics</i> , <b>2005</b> , 170, 237-44	4	212
23	Adaptive molecular evolution in the opsin genes of rapidly speciating cichlid species. <i>Molecular Biology and Evolution</i> , <b>2005</b> , 22, 1412-22	8.3	112
22	Population variation in opsin expression in the bluefin killifish, <i>Lucania goodei</i> : a real-time PCR study. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , <b>2004</b> , 190, 147-54	2.3	99
21	The genetic basis of biodiversity: genomic studies of cichlid fishes <b>2003</b> , 35-44		
20	Rapid isolation of CA microsatellites from the tilapia genome. <i>Animal Genetics</i> , <b>2002</b> , 33, 140-4	2.5	116
19	Cone opsin genes of african cichlid fishes: tuning spectral sensitivity by differential gene expression. <i>Molecular Biology and Evolution</i> , <b>2001</b> , 18, 1540-50	8.3	210

18	Visual pigments of African cichlid fishes: evidence for ultraviolet vision from microspectrophotometry and DNA sequences. <i>Vision Research</i> , <b>2000</b> , 40, 879-90	2.1	97
17	Base Substitution in Fish Mitochondrial DNA: Patterns and Rates <b>1997</b> , 13-24		15
16	Ultrasensitive dual-beam absorption and gain spectroscopy: applications for near-infrared and visible diode laser sensors. <i>Applied Optics</i> , <b>1995</b> , 34, 3240-9	1.7	83
15	Spacecraft thermal energy accommodation from atomic recombination. <i>Journal of Thermophysics and Heat Transfer</i> , <b>1992</b> , 6, 650-655	1.3	37
14	The effect of parent rotational state on fragment anisotropy and application to formaldehyde. <i>Journal of Chemical Physics</i> , <b>1991</b> , 94, 1947-1953	3.9	31
13	Dynamics of electronic energy quenching: The reaction of H <sub>2</sub> (B)+He. <i>Journal of Chemical Physics</i> , <b>1990</b> , 93, 323-332	3.9	12
12	Photodissociation dynamics of formaldehyde: H <sub>2</sub> rotational distributions and product quantum state correlations. <i>Journal of Chemical Physics</i> , <b>1990</b> , 92, 377-393	3.9	84
11	Photodissociation dynamics of formaldehyde: H <sub>2</sub> ( $\nu, J$ ) vector correlations. <i>Journal of Chemical Physics</i> , <b>1990</b> , 93, 3907-3918	3.9	39
10	Vector and product quantum-state correlations for photofragmentation of formaldehyde. <i>Journal of the Chemical Society, Faraday Transactions 2</i> , <b>1989</b> , 85, 1155		28
9	Surface structures and growth mechanism of Ga ON Si(100) determined by LEED and Auger electron spectroscopy. <i>Surface Science</i> , <b>1988</b> , 204, 455-472	1.8	95
8	Desorption of a two-state system: Laser probing of gallium atom spin-orbit states from silicon (100). <i>Surface Science</i> , <b>1988</b> , 199, 447-466	1.8	12
7	Laser Probing of the Dynamics of Ga Interactions on Si(100). <i>Materials Research Society Symposia Proceedings</i> , <b>1988</b> , 116, 45		1
6	Laser probing of gallium atom interactions with silicon(100) surfaces. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>1987</b> , 5, 1141		29
5	Detection of nitrogen rotational distributions by resonant 2 + 2 multiphoton ionization through the $a1\bar{g}$ state. <i>Chemical Physics Letters</i> , <b>1985</b> , 115, 492-495	2.5	40
4	Movement of transposable elements contributes to cichlid diversity		2
3	Chromosome-scale assemblies reveal the structural evolution of African cichlid genomes		5
2	Vision using multiple distinct rod opsins in deep-sea fishes		1
1	Visual pigment evolution in Characiformes: the dynamic interplay of teleost whole-genome duplication, surviving opsins and spectral tuning		2

