Thomas W Cronin

List of Publications by Year
in descending order

106 papers	5,038 citations	87888 38 h-index	110387 64 g-index
110 all docs	110 docs citations	110 times ranked	3514 citing authors

#	Article	IF	Citations
1	Interspecific and intraspecific views of color signals in the strawberry poison frog<i>Dendrobates pumilio</i>. Journal of Experimental Biology, 2004, 207, 2471-2485.	1.7	469
2	Shedding new light on opsin evolution. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 3-14.	2.6	206
3	Polarization Vision and Its Role in Biological Signaling. Integrative and Comparative Biology, 2003, 43, 549-558.	2.0	186
4	A retina with at least ten spectral types of photoreceptors in a mantis shrimp. Nature, 1989, 339, 137-140.	27.8	183
5	Spectral Tuning of Avian Violet- and Ultraviolet-Sensitive Visual Pigments. Biochemistry, 2000, 39, 7895-7901.	2.5	129
6	Photoreception and vision in the ultraviolet. Journal of Experimental Biology, 2016, 219, 2790-2801.	1.7	126
7	Stomatopod eye structure and function: A review. Arthropod Structure and Development, 2007, 36, 420-448.	1.4	116
8	Behavioural evidence for polarisation vision in stomatopods reveals a potential channel for communication. Current Biology, 1999, 9, 755-758.	3.9	109
9	The linearly polarized light field in clear, tropical marine waters: spatial and temporal variation of light intensity, degree of polarization and e-vector angle. Journal of Experimental Biology, 2001, 204, 2461-2467.	1.7	99
10	Bioinspired Polarization Imaging Sensors: From Circuits and Optics to Signal Processing Algorithms and Biomedical Applications. Proceedings of the IEEE, 2014, 102, 1450-1469.	21.3	94
11	Patterns and properties of polarized light in air and water. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 619-626.	4.0	90
12	Celestial polarization patterns during twilight. Applied Optics, 2006, 45, 5582.	2.1	88
13	Tunable colour vision in a mantis shrimp. Nature, 2001, 411, 547-548.	27.8	82
14	Spectral filtering enables trichromatic vision in colorful jumping spiders. Current Biology, 2015, 25, R403-R404.	3.9	82
15	Colour vision in marine organisms. Current Opinion in Neurobiology, 2015, 34, 86-94.	4.2	80
16	Transmission of linearly polarized light in seawater: implications for polarization signaling. Journal of Experimental Biology, 2004, 207, 3619-3628.	1.7	78
17	Dynamic polarization vision in mantis shrimps. Nature Communications, 2016, 7, 12140.	12.8	78
18	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

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19	Spectral tuning of dichromats to natural scenes. Vision Research, 2000, 40, 3257-3271.	1.4	67
20	The molecular basis of mechanisms underlying polarization vision. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 627-637.	4.0	67
21	Visual phototransduction components in cephalopod chromatophores suggest dermal photoreception. Journal of Experimental Biology, 2015, 218, 1596-1602.	1.7	65
22	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
23	Ultraviolet photoreception in mantis shrimp. Vision Research, 1994, 34, 1443-1452.	1.4	62
24	Spectral tuning and the visual ecology of mantis shrimps. Philosophical Transactions of the Royal Society B: Biological Sciences, 2000, 355, 1263-1267.	4.0	62
25	Using phylogenetically-informed annotation (PIA) to search for light-interacting genes in transcriptomes from non-model organisms. BMC Bioinformatics, 2014, 15, 350.	2.6	62
26	Biological Sunscreens Tune Polychromatic Ultraviolet Vision in Mantis Shrimp. Current Biology, 2014, 24, 1636-1642.	3.9	61
27	Evolution of anatomical and physiological specialization in the compound eyes of stomatopod crustaceans. Journal of Experimental Biology, 2010, 213, 3473-3486.	1.7	59
28	Light habitats and the role of polarized iridescence in the sensory ecology of neotropical nymphalid butterflies (Lepidoptera: Nymphalidae). Journal of Experimental Biology, 2007, 210, 788-799.	1.7	56
29	Molecular diversity of visual pigments in Stomatopoda (Crustacea). Visual Neuroscience, 2009, 26, 255-265.	1.0	55
30	Optical Design and Evolutionary Adaptation in Crustacean Compound Eyes. Journal of Crustacean Biology, 1986, 6, 1.	0.8	54
31	Stomatopod photoreceptor spectral tuning as an adaptation for colour constancy in water. Vision Research, 1997, 37, 3299-3309.	1.4	54
32	Polarisation vision. Current Biology, 2011, 21, R101-R105.	3.9	53
33	Spectral and spatial properties of polarized light reflections from the arms of squid (<i>Loligo) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T 3624-3635.	1.7	48
34	The intrarhabdomal filters in the retinas of mantis shrimps. Vision Research, 1994, 34, 279-291.	1.4	47
35	The Evolution of Complexity in the Visual Systems of Stomatopods: Insights from Transcriptomics. Integrative and Comparative Biology, 2013, 53, 39-49.	2.0	45
36	The visual pigment of a stomatopod crustacean,Squilla empusa. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1985, 156, 679-687.	1.6	44

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37	Spectral sensitivity of four species of fiddler crabs (Uca pugnax, Uca pugilator, Uca vomeris and Uca) Tj ETQq1 1 0.784314 rgBT /Overlo 447-453.	1.7	44
38	QUANTUM EFFICIENCY AND PHOTOSENSITIVITY OF THE RHODOPSIN â‡Œ METARHODOPSIN CONVERSION IN CRAYFISH PHOTORECEPTORS. Photochemistry and Photobiology, 1982, 36, 447-454.	2.5	42
39	Parallel Processing and Image Analysis in the Eyes of Mantis Shrimps. Biological Bulletin, 2001, 200, 177-183.	1.8	41
40	Light and vision in the deep-sea benthos: II. Vision in deep-sea crustaceans. Journal of Experimental Biology, 2012, 215, 3344-3353.	1.7	39
41	Eye Design and Color Signaling in a Stomatopod Crustacean <i>Gonodactylus smithii</i>. Brain, Behavior and Evolution, 2000, 56, 107-122.	1.7	38
42	Anatomical and physiological evidence for polarisation vision in the nocturnal bee Megalopta genalis. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2007, 193, 591-600.	1.6	38
43	Changes in light-reflecting properties of signalling appendages alter mate choice behaviour in a stomatopod crustacean<i>Haptosquilla trispinosa</i>. Marine and Freshwater Behaviour and Physiology, 2011, 44, 1-11.	0.9	38
44	Diverse Distributions of Extraocular Opsins in Crustaceans, Cephalopods, and Fish. Integrative and Comparative Biology, 2016, 56, 820-833.	2.0	37
45	Ocular Tracking of Rapidly Moving Visual Targets by Stomatopod Crustaceans. Journal of Experimental Biology, 1988, 138, 155-179.	1.7	37
46	Modification of spectral sensitivities by screening pigments in the compound eyes of twilight-active fireflies (Coleoptera: Lampyridae). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1988, 162, 23-33.	1.6	36
47	A novel function for a carotenoid: astaxanthin used as a polarizer for visual signalling in a mantis shrimp. Journal of Experimental Biology, 2012, 215, 584-589.	1.7	35
48	Tuning of photoreceptor function in three mantis shrimp species that inhabit a range of depths. II. Filter pigments. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2002, 188, 187-197.	1.6	34
49	Mantis Shrimp Navigate Home Using Celestial and Idiothetic Path Integration. Current Biology, 2020, 30, 1981-1987.e3.	3.9	34
50	Ontogeny of Vision in Marine Crustaceans1. American Zoologist, 2001, 41, 1098-1107.	0.7	33
51	Filtering and polychromatic vision in mantis shrimps: themes in visible and ultraviolet vision. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130032.	4.0	33
52	Visual pigment absorbance and spectral sensitivity of the Mysis relicta species group (Crustacea,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Sensory, Neural, and Behavioral Physiology, 2005, 191, 1087-1097.	1.6	32
53	Deep-sea and pelagic rod visual pigments identified in the mysticete whales. Visual Neuroscience, 2012, 29, 95-103.	1.0	30
54	Compound eyes and ocular pigments of crustacean larvae (Stomatopoda and decapoda, brachyura). Marine and Freshwater Behaviour and Physiology, 1995, 26, 219-231.	0.9	29

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55	Extraocular, Non-Visual, and Simple Photoreceptors: An Introduction to the Symposium. Integrative and Comparative Biology, 2016, 56, 758-763.	2.0	29
56	Polarisation signals: a new currency for communication. Journal of Experimental Biology, 2019, 222, .	1.7	29
57	Adaptive signaling behavior in stomatopods under varying light conditions. Marine and Freshwater Behaviour and Physiology, 2009, 42, 219-232.	0.9	27
58	Tuning of photoreceptor function in three mantis shrimp species that inhabit a range of depths. I. Visual pigments. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2002, 188, 179-186.	1.6	25
59	Exceptional Variation on a Common Theme: The Evolution of Crustacean Compound Eyes. Evolution: Education and Outreach, 2008, 1, 463-475.	0.8	25
60	Adaptive color vision in Pullosquilla litoralis (Stomatopoda,Lysiosquilloidea) associated with spectral and intensity changes in light environment. Journal of Experimental Biology, 2003, 206, 373-379.	1.7	24
61	Out of the blue: the evolution of horizontally polarized signals in<i>Haptosquilla</i>(Crustacea,) Tj ETQq1 1 0.784314 rgBT /Overlock 1	1.7	24
62	The retinoids of seven species of mantis shrimp. Visual Neuroscience, 1993, 10, 915-920.	1.0	23
63	Spectral sensitivity, visual pigments and screening pigments in two life history stages of the ontogenetic migrator Gnathophausia ingens. Journal of the Marine Biological Association of the United Kingdom, 2009, 89, 119-129.	0.8	22
64	Exceptional diversity of opsin expression patterns in <i>Neogonodactylus oerstedii</i> (Stomatopoda) retinas. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 8948-8957.	7.1	22
65	An Unexpected Diversity of Photoreceptor Classes in the Longfin Squid, Doryteuthis pealeii. PLoS ONE, 2015, 10, e0135381.	2.5	21
66	Polarization signals in the marine environment. , 2003, 5158, 85.		19
67	Evolutionary variation in the expression of phenotypically plastic color vision in Caribbean mantis shrimps, genus Neogonodactylus. Marine Biology, 2006, 150, 213-220.	1.5	19
68	Ultraviolet filters in stomatopod crustaceans: diversity, ecology, and evolution. Journal of Experimental Biology, 2015, 218, 2055-66.	1.7	19
69	Visual Adaptations in Crustaceans: Chromatic, Developmental, and Temporal Aspects. , 2003, , 343-372.		18
70	Variation in Stomatopod <i>(Gonodactylus smithii)</i> Color Signal Design Associated with Organismal Condition and Depth. Brain, Behavior and Evolution, 2005, 66, 99-113.	1.7	18
71	Crustacean Larvaeâ€"Vision in the Plankton. Integrative and Comparative Biology, 2017, 57, 1139-1150.	2.0	15
72	Behavioural evidence for polychromatic ultraviolet sensitivity in mantis shrimp. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20181384.	2.6	15

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73	Visual Optics: Accommodation inÂaÂSplash. Current Biology, 2012, 22, R871-R873.	3.9	14
74	Polarization vision seldom increases the sighting distance of silvery fish. Current Biology, 2016, 26, R752-R754.	3.9	14
75	Head-bobbing behavior in foraging whooping cranes favors visual fixation. Current Biology, 2005, 15, R243-R244.	3.9	13
76	Visual pigments, oil droplets, lens, and cornea characterization in the whooping crane (<i>Grus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	1.7	13
77	A shape-anisotropic reflective polarizer in a stomatopod crustacean. Scientific Reports, 2016, 6, 21744.	3.3	13
78	Coping with copepods: do right whales (<i>Eubalaena glacialis</i>) forage visually in dark waters?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160067.	4.0	13
79	Spectral Sensitivity in Crustacean Eyes. , 2002, , 499-511.		12
80	Camouflage: Being Invisible in the Open Ocean. Current Biology, 2016, 26, R1179-R1181.	3.9	11
81	Two visual systems in one eyestalk: The unusual optic lobe metamorphosis in the stomatopod <i>Alima pacifica</i>. Developmental Neurobiology, 2018, 78, 3-14.	3.0	11
82	Opsin Expression in the Central Nervous System of the Mantis Shrimp <i>Neogonodactylus oerstedii</i>. Biological Bulletin, 2017, 233, 58-69.	1.8	10
83	Visual metamorphoses in insects and malacostracans: Transitions between an aquatic and terrestrial life. Arthropod Structure and Development, 2020, 59, 100974.	1.4	10
84	NO EVIDENCE OF ACCOMMODATION IN THE EYES OF THE BOTTLENOSE DOLPHIN, TURSIOPS TRUNCATUS. Marine Mammal Science, 2001, 17, 508-525.	1.8	9
85	Biological polarized light reflectors in stomatopod crustaceans. , 2005, , .		9
86	Polarisation Signals. , 2014, , 407-442.		9
87	Regional Specialization for Control of Ocular Movements in the Compound Eyes of a Stomatopod Crustacean. Journal of Experimental Biology, 1992, 171, 373-393.	1.7	9
88	Ontogeny of Vision in Marine Crustaceans. American Zoologist, 2001, 41, 1098-1107.	0.7	8
89	Head-bobbing behavior in walking whooping cranes (Grus americana) and sandhill cranes (Grus) Tj ETQq1 1 0.784314 rgBT /Overlock	1.2	8
90	Vision in the snapping shrimp <i>Alpheus heterochaelis</i>. Journal of Experimental Biology, 2019, 222, .	1.7	8

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91	Path integration error and adaptable search behaviors in a mantis shrimp. Journal of Experimental Biology, 2020, 223, .	1.7	8
92	A different view: sensory drive in the polarized-light realm. Environmental Epigenetics, 2018, 64, 513-523.	1.8	7
93	Visual predation during springtime foraging of the North Atlantic right whale (Eubalaena glacialis). Marine Mammal Science, 2017, 33, 991-1013.	1.8	6
94	Sequence, Structure, and Expression of Opsins in the Monochromatic Stomatopod Squilla empusa. Integrative and Comparative Biology, 2018, 58, 386-397.	2.0	6
95	Strange eyes, stranger brains: exceptional diversity of optic lobe organization in midwater crustaceans. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20210216.	2.6	6
96	New directions in the detection of polarized light. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 615-616.	4.0	5
97	Multichannel spectrometers in animals. Bioinspiration and Biomimetics, 2018, 13, 021001.	2.9	5
98	Stomatopods. Current Biology, 2006, 16, R235-R236.	3.9	4
99	Comment on â€œOpen-ocean fish reveal an omnidirectional solution to camouflage in polarized environmentsâ€. Science, 2016, 353, 552-552.	12.6	3
100	Optic lobe organization in stomatopod crustacean species possessing different degrees of retinal complexity. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2020, 206, 247-258.	1.6	3
101	Mantis shrimp identify an object by its shape rather than its color during visual recognition. Journal of Experimental Biology, 2021, 224, .	1.7	3
102	Landmark navigation in a mantis shrimp. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20201898.	2.6	3
103	Scanning eye movements of the stomatopod crustacean, Neogonodactylus oerstedii, in polarized light fields. Marine and Freshwater Behaviour and Physiology, 2018, 51, 263-273.	0.9	2
104	Sensory Ecology: In Sea Snake Vision, One Plus One Makes Three. Current Biology, 2020, 30, R763-R766.	3.9	2
105	Visual system characterization of the obligate bat ectoparasite Trichobius frequens (Diptera:) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	1.4	2
106	Visual Ecology. , 2020, , 66-95.		1