# Eric J Warrant

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 125 papers | 7,603 citations | 53789 45 h-index | 66906 78 g-index |
| 140 all docs | 140 docs citations | 140 times ranked | 4360 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Flight-induced compass representation in the monarch butterfly heading network. Current Biology, 2022, 32, 338-349.e5. | 3.9 | 42 |
| 2 | Itâ€™s all about seeing and hearing: the Editorsâ€™ and Readersâ€™ Choice Awards 2022. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2022, , 1. | 1.6 | 1 |
| 3 | Mike Land: a personal remembrance. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2022, 208, 345-347. | 1.6 | 0 |
| 4 | Potential for identification of wild night-flying moths by remote infrared microscopy. Journal of the Royal Society Interface, 2022, 19, . | 3.4 | 8 |
| 5 | How Dung Beetles Steer Straight. Annual Review of Entomology, 2021, 66, 243-256. | 11.8 | 24 |
| 6 | Wing damage affects flight kinematics but not flower tracking performance in hummingbird hawkmoths. Journal of Experimental Biology, 2021, 224, . | 1.7 | 11 |
| 7 | Moths are strongly attracted to ultraviolet and blue radiation. Insect Conservation and Diversity, 2021, 14, 188-198. | 3.0 | 25 |
| 8 | Heading variations resolve the heading-direction ambiguity in vertical-beam radar observations of insect migration. International Journal of Remote Sensing, 2021, 42, 3873-3898. | 2.9 | 0 |
| 9 | Nocturnal Bees as Crop Pollinators. Agronomy, 2021, 11, 1014. | 3.0 | 8 |
| 10 | A Guide for Using Flight Simulators to Study the Sensory Basis of Long-Distance Migration in Insects. Frontiers in Behavioral Neuroscience, 2021, 15, 678936. | 2.0 | 7 |
| 11 | Unravelling the enigma of bird magnetoreception. Nature, 2021, 594, 497-498. | 27.8 | 8 |
| 12 | Editorial. Arthropod Structure and Development, 2021, 63, 101073. | 1.4 | 0 |
| 13 | Dorsal landmark navigation in a Neotropical nocturnal bee. Current Biology, 2021, 31, 3601-3605.e3. | 3.9 | 5 |
| 14 | A unified platform to manage, share, and archive morphological and functional data in insect neuroscience. ELife, 2021, 10, . | 6.0 | 21 |
| 15 | Australian Bogong moths <i>Agrotis infusa</i> (Lepidoptera: Noctuidae), 1951â€“2020: decline and crash. Austral Entomology, 2021, 60, 66-81. | 1.4 | 25 |
| 16 | A new, fluorescence-based method for visualizing the pseudopupil and assessing optical acuity in the dark compound eyes of honeybees and other insects. Scientific Reports, 2021, 11, 21267. | 3.3 | 2 |
| 17 | Animal navigation: a noisy magnetic sense?. Journal of Experimental Biology, 2020, 223, . | 1.7 | 20 |
| 18 | Cover Image, Volume 528, Issue 11. Journal of Comparative Neurology, 2020, 528, C4. | 1.6 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | OBSOLETE: Light and Visual Environments. , 2020, , . | | 0 |
| 20 | Retinal Ganglion Cell Topography and Spatial Resolving Power in Echolocating and Non-Echolocating Bats. Brain, Behavior and Evolution, 2020, 95, 58-68. | 1.7 | 3 |
| 21 | Bogong Moths Are Well Camouflaged by Effectively Decolourized Wing Scales. Frontiers in Physiology, 2020, 11, 95. | 2.8 | 6 |
| 22 | Insect Target Classes Discerned from Entomological Radar Data. Remote Sensing, 2020, 12, 673. | 4.0 | 8 |
| 23 | The brain of a nocturnal migratory insect, the Australian Bogong moth. Journal of Comparative Neurology, 2020, 528, 1942-1963. | 1.6 | 31 |
| 24 | Spatial orientation based on multiple visual cues in non-migratory monarch butterflies. Journal of Experimental Biology, 2020, 223, . | 1.7 | 20 |
| 25 | Light and Visual Environments. , 2020, , 4-30. | | 5 |
| 26 | Desert Navigator: The Journey of an Ant. By RÃ¼diger Wehner. Belknap Press. Cambridge (Massachusetts): Harvard University Press. $59.95. vii + 392 p.; ill.; index. ISBN: 9780674045880. 2020.. Quarterly Review of Biology, 2020, 95, 327-328. | 0.1 | 0 |
| 27 | Animal Signals: Dirty Dancing in the Dark?. Current Biology, 2019, 29, R834-R836. | 3.9 | 0 |
| 28 | Retinal oxygen supply shaped the functional evolution of the vertebrate eye. ELife, 2019, 8, . | 6.0 | 19 |
| 29 | Auditory opportunity and visual constraint enabled the evolution of echolocation in bats. Nature Communications, 2018, 9, 98. | 12.8 | 57 |
| 30 | Visual Optics: Remarkable Image-Forming Mirrors inÂScallop Eyes. Current Biology, 2018, 28, R262-R264. | 3.9 | 3 |
| 31 | Evidence for a southward autumn migration of nocturnal noctuid moths in central Europe. Journal of Experimental Biology, 2018, 221, . | 1.7 | 37 |
| 32 | The Earthâ€™s Magnetic Field and Visual Landmarks Steer Migratory Flight Behavior in the Nocturnal Australian Bogong Moth. Current Biology, 2018, 28, 2160-2166.e5. | 3.9 | 94 |
| 33 | Neuroarchitecture of the dung beetle central complex. Journal of Comparative Neurology, 2018, 526, 2612-2630. | 1.6 | 47 |
| 34 | Consequences of evolutionary transitions in changing photic environments. Austral Entomology, 2017, 56, 23-46. | 1.4 | 52 |
| 35 | Vision in dim light: highlights and challenges. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160062. | 4.0 | 31 |
| 36 | The remarkable visual capacities of nocturnal insects: vision at the limits with small eyes and tiny brains. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160063. | 4.0 | 77 |

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|---|---|---|---|
| 37 | Higher-order neural processing tunes motion neurons to visual ecology in three species of hawkmoths. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20170880. | 2.6 | 25 |
| 38 | Visual Tracking: Hot Pursuit with Tiny Eyes. Current Biology, 2017, 27, R234-R237. | 3.9 | 1 |
| 39 | An Anatomically Constrained Model for Path Integration in the Bee Brain. Current Biology, 2017, 27, 3069-3085.e11. | 3.9 | 290 |
| 40 | Oilbirds. Current Biology, 2017, 27, R1145-R1147. | 3.9 | 4 |
| 41 | Resolving the Trade-off Between Visual Sensitivity and Spatial Acuityâ€"Lessons from Hawkmoths. Integrative and Comparative Biology, 2017, 57, 1093-1103. | 2.0 | 14 |
| 42 | Comparison of Navigation-Related Brain Regions in Migratory versus Non-Migratory Noctuid Moths. Frontiers in Behavioral Neuroscience, 2017, 11, 158. | 2.0 | 26 |
| 43 | Visual Adaptations for Mate Detection in the Male Carpenter Bee Xylocopa tenuiscapa. PLoS ONE, 2017, 12, e0168452. | 2.5 | 23 |
| 44 | The Australian Bogong Moth Agrotis infusa: A Long-Distance Nocturnal Navigator. Frontiers in Behavioral Neuroscience, 2016, 10, 77. | 2.0 | 80 |
| 45 | Bumblebees Perform Well-Controlled Landings in Dim Light. Frontiers in Behavioral Neuroscience, 2016, 10, 174. | 2.0 | 12 |
| 46 | Differential investment in visual and olfactory brain areas reflects behavioural choices in hawk moths. Scientific Reports, 2016, 6, 26041. | 3.3 | 72 |
| 47 | Bogong moths. Current Biology, 2016, 26, R263-R265. | 3.9 | 5 |
| 48 | Visual Navigation in Nocturnal Insects. Physiology, 2016, 31, 182-192. | 3.1 | 60 |
| 49 | Superior visual performance in nocturnal insects: neural principles and bio-inspired technologies. Proceedings of SPIE, 2016, , . | 0.8 | 2 |
| 50 | The Dual Function of Orchid Bee Ocelli as Revealed by X-Ray Microtomography. Current Biology, 2016, 26, 1319-1324. | 3.9 | 53 |
| 51 | Adaptations for nocturnal and diurnal vision in the hawkmoth lamina. Journal of Comparative Neurology, 2016, 524, 160-175. | 1.6 | 58 |
| 52 | Sensory matched filters. Current Biology, 2016, 26, R976-R980. | 3.9 | 33 |
| 53 | Flight control and landing precision in the nocturnal bee Megalopta is robust to large changes in light intensity. Frontiers in Physiology, 2015, 6, 305. | 2.8 | 22 |
| 54 | Visual tracking in the dead of night. Science, 2015, 348, 1212-1213. | 12.6 | 2 |

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|---|---|---|---|
| 55 | Photoreceptor Evolution: Ancient â€˜Conesâ€™ Turn Out to Be Rods. Current Biology, 2015, 25, R148-R151. | 3.9 | 4 |
| 56 | Effect of light intensity on flight control and temporal properties of photoreceptors in bumblebees. Journal of Experimental Biology, 2015, 218, 1339-46. | 1.7 | 47 |
| 57 | The energetic cost of vision and the evolution of eyeless Mexican cavefish. Science Advances, 2015, 1, e1500363. | 10.3 | 181 |
| 58 | Neural coding underlying the cue preference for celestial orientation. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11395-11400. | 7.1 | 166 |
| 59 | Large variation among photoreceptors as the basis of visual flexibility in the common backswimmer. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141177. | 2.6 | 17 |
| 60 | The Remarkable Visual Abilities of Nocturnal Insects: Neural Principles and Bioinspired Night-Vision Algorithms. Proceedings of the IEEE, 2014, 102, 1411-1426. | 21.3 | 20 |
| 61 | Eyeless Mexican Cavefish Save Energy by Eliminating the Circadian Rhythm in Metabolism. PLoS ONE, 2014, 9, e107877. | 2.5 | 108 |
| 62 | Vision and the light environment. Current Biology, 2013, 23, R990-R994. | 3.9 | 62 |
| 63 | Dung Beetles Use the Milky Way for Orientation. Current Biology, 2013, 23, 298-300. | 3.9 | 178 |
| 64 | Dung beetles ignore landmarks for straight-line orientation. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2013, 199, 17-23. | 1.6 | 38 |
| 65 | Are harbour seals (Phoca vitulina) able to perceive and use polarised light?. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2013, 199, 509-519. | 1.6 | 7 |
| 66 | Dung beetles use their dung ball as a mobile thermal refuge. Current Biology, 2012, 22, R863-R864. | 3.9 | 28 |
| 67 | A Unique Advantage for Giant Eyes in Giant Squid. Current Biology, 2012, 22, 683-688. | 3.9 | 85 |
| 68 | The Dung Beetle Dance: An Orientation Behaviour?. PLoS ONE, 2012, 7, e30211. | 2.5 | 42 |
| 69 | Nocturnal Homing: Learning Walks in a Wandering Spider?. PLoS ONE, 2012, 7, e49263. | 2.5 | 18 |
| 70 | Computational models for spatiotemporal filtering strategies in insect motion vision at low light levels. , 2011, , . | | 4 |
| 71 | Vision and Visual Navigation in Nocturnal Insects. Annual Review of Entomology, 2011, 56, 239-254. | 11.8 | 169 |
| 72 | Spectral sensitivity of a colour changing spider. Journal of Insect Physiology, 2011, 57, 508-513. | 2.0 | 17 |

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|---|---|---|---|
| 73 | Nocturnal insects use optic flow for flight control. Biology Letters, 2011, 7, 499-501. | 2.3 | 53 |
| 74 | Ocellar adaptations for dim light vision in a nocturnal bee. Journal of Experimental Biology, 2011, 214, 1283-1293. | 1.7 | 39 |
| 75 | Hornets Can Fly at Night without Obvious Adaptations of Eyes and Ocelli. PLoS ONE, 2011, 6, e21892. | 2.5 | 18 |
| 76 | Bearing selection in ball-rolling dung beetles: is it constant?. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2010, 196, 801-806. | 1.6 | 23 |
| 77 | Polarisation Vision: Beetles See Circularly Polarised Light. Current Biology, 2010, 20, R610-R612. | 3.9 | 21 |
| 78 | Wide-field motion tuning in nocturnal hawkmoths. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 853-860. | 2.6 | 53 |
| 79 | Visual Orientation and Navigation in Nocturnal Arthropods. Brain, Behavior and Evolution, 2010, 75, 156-173. | 1.7 | 39 |
| 80 | Comparative visual function in four piscivorous fishes inhabiting Chesapeake Bay. Journal of Experimental Biology, 2010, 213, 1751-1761. | 1.7 | 49 |
| 81 | Resolution and sensitivity of the eyes of the Asian honeybees <i>Apis florea, Apis cerana</i> and <i>Apis dorsata</i>. Journal of Experimental Biology, 2009, 212, 2448-2453. | 1.7 | 46 |
| 82 | Mammalian Vision: Rods Are a Bargain. Current Biology, 2009, 19, R69-R71. | 3.9 | 4 |
| 83 | Lens optical properties in the eyes of large marine predatory teleosts. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2009, 195, 175-182. | 1.6 | 24 |
| 84 | Visual ecology of Indian carpenter bees II: adaptations of eyes and ocelli to nocturnal and diurnal lifestyles. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2009, 195, 571-583. | 1.6 | 87 |
| 85 | Visual ecology of Indian carpenter bees I: Light intensities and flight activity. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2008, 194, 97-107. | 1.6 | 66 |
| 86 | Visual Reliability and Information Rate in the Retina of a Nocturnal Bee. Current Biology, 2008, 18, 349-353. | 3.9 | 74 |
| 87 | Comparative visual function in five sciaenid fishes inhabiting Chesapeake Bay. Journal of Experimental Biology, 2008, 211, 3601-3612. | 1.7 | 53 |
| 88 | The optical sensitivity of compound eyes: theory and experiment compared. Biology Letters, 2008, 4, 745-747. | 2.3 | 16 |
| 89 | Seeing in the dark: vision and visual behaviour in nocturnal bees and wasps. Journal of Experimental Biology, 2008, 211, 1737-1746. | 1.7 | 118 |
| 90 | Visual sensitivity in the crepuscular owl butterfly <i>Caligo memnon</i> and the diurnal blue morpho <i>Morpho peleides</i>: a clue to explain the evolution of nocturnal apposition eyes?. Journal of Experimental Biology, 2008, 211, 844-851. | 1.7 | 40 |

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|---|---|---|---|
| 91 | Flight performance in night-flying sweat bees suffers at low light levels. Journal of Experimental Biology, 2007, 210, 4034-4042. | 1.7 | 39 |
| 92 | Visual Ecology: Hiding in the Dark. Current Biology, 2007, 17, R209-R211. | 3.9 | 7 |
| 93 | Nocturnal bees. Current Biology, 2007, 17, R991-R992. | 3.9 | 10 |
| 94 | Form vision in the insect dorsal ocelli: An anatomical and optical analysis of the dragonfly median ocellus. Vision Research, 2007, 47, 1394-1409. | 1.4 | 36 |
| 95 | Form vision in the insect dorsal ocelli: An anatomical and optical analysis of the Locust Ocelli. Vision Research, 2007, 47, 1382-1393. | 1.4 | 29 |
| 96 | Adaptive enhancement and noise reduction in very low light-level video. , 2007, , . | | 75 |
| 97 | 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 |
| 98 | Adaptations for vision in dim light: impulse responses and bumps in nocturnal spider photoreceptor cells (Cupiennius salei Keys). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2007, 193, 1081-1087. | 1.6 | 24 |
| 99 | Light intensity limits foraging activity in nocturnal and crepuscular bees. Behavioral Ecology, 2006, 17, 63-72. | 2.2 | 135 |
| 100 | Crepuscular and nocturnal illumination and its effects on color perception by the nocturnal hawkmoth <i>Deilephila elpenor</i>. Journal of Experimental Biology, 2006, 209, 789-800. | 1.7 | 202 |
| 101 | Celestial polarization patterns during twilight. Applied Optics, 2006, 45, 5582. | 2.1 | 88 |
| 102 | A`bright zone' in male hoverfly (Eristalis tenax) eyes and associated faster motion detection and increased contrast sensitivity. Journal of Experimental Biology, 2006, 209, 4339-4354. | 1.7 | 122 |
| 103 | Visual summation in night-flying sweat bees: A theoretical study. Vision Research, 2006, 46, 2298-2309. | 1.4 | 68 |
| 104 | Visual training improves underwater vision in children. Vision Research, 2006, 46, 3443-3450. | 1.4 | 36 |
| 105 | Ocellar optics in nocturnal and diurnal bees and wasps. Arthropod Structure and Development, 2006, 35, 293-305. | 1.4 | 66 |
| 106 | Warm Eyes Provide Superior Vision in Swordfishes. Current Biology, 2005, 15, 55-58. | 3.9 | 172 |
| 107 | A neural network to improve dim-light vision? Dendritic fields of first-order interneurons in the nocturnal bee Megalopta genalis. Cell and Tissue Research, 2005, 322, 313-320. | 2.9 | 69 |
| 108 | Lunar orientation in a beetle. Proceedings of the Royal Society B: Biological Sciences, 2004, 271, 361-365. | 2.6 | 102 |

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|---|---|---|---|
| 109 | Nocturnal Vision and Landmark Orientation in a Tropical Halictid Bee. Current Biology, 2004, 14, 1309-1318. | 3.9 | 189 |
| 110 | Retinal and optical adaptations for nocturnal vision in the halictid bee Megalopta genalis. Cell and Tissue Research, 2004, 316, 377-390. | 2.9 | 144 |
| 111 | Neural organisation in the first optic ganglion of the nocturnal bee Megalopta genalis. Cell and Tissue Research, 2004, 318, 429-437. | 2.9 | 72 |
| 112 | Vision in the dimmest habitats on Earth. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2004, 190, 765-789. | 1.6 | 255 |
| 113 | Vision in the deep sea. Biological Reviews, 2004, 79, 671-712. | 10.4 | 334 |
| 114 | Visual cues used by ball-rolling dung beetles for orientation. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2003, 189, 411-418. | 1.6 | 75 |
| 115 | Superior Underwater Vision in a Human Population of Sea Gypsies. Current Biology, 2003, 13, 833-836. | 3.9 | 101 |
| 116 | Insect orientation to polarized moonlight. Nature, 2003, 424, 33-33. | 27.8 | 252 |
| 117 | Retinal specializations in the blue marlin: eyes designed for sensitivity to low light levels. Marine and Freshwater Research, 2003, 54, 333. | 1.3 | 79 |
| 118 | Colour Vision in Diurnal and Nocturnal Hawkmoths. Integrative and Comparative Biology, 2003, 43, 571-579. | 2.0 | 102 |
| 119 | Visual field structure in the Empress Leilia, Asterocampa leilia (Lepidoptera, Nymphalidae): dimensions and regional variation in acuity. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2002, 188, 1-12. | 1.6 | 32 |
| 120 | Scotopic colour vision in nocturnal hawkmoths. Nature, 2002, 419, 922-925. | 27.8 | 214 |
| 121 | Visual discrimination: Seeing the third quality of light. Current Biology, 1999, 9, R535-R537. | 3.9 | 50 |
| 122 | Seeing better at night: life style, eye design and the optimum strategy of spatial and temporal summation. Vision Research, 1999, 39, 1611-1630. | 1.4 | 305 |
| 123 | Absorption of white light in photoreceptors. Vision Research, 1998, 38, 195-207. | 1.4 | 185 |
| 124 | Strategies for retinal design in arthropod eyes of low F-number. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1991, 168, 499-512. | 1.6 | 53 |
| 125 | Changes of Acuity during Light and Dark Adaptation in the Dragonfly Compound Eye. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 1990, 45, 137-142. | 1.4 | 5 |