Henrik Mouritsen

List of Publications by Year
in descending order

101 papers	8,031 citations	38742 50 h-index	51608 86 g-index
103 all docs	103 docs citations	103 times ranked	4392 citing authors

#	Article	IF	Citations
1	Magnetoreception in birds and its use for long-distance migration. , 2022, , 233-256.		10
2	Magnetic stop signs signal a European songbirdâ€™s arrival at the breeding site after migration. Science, 2022, 375, 446-449.	12.6	26
3	Broadband 75â€“85ÂMHz radiofrequency fields disrupt magnetic compass orientation in night-migratory songbirds consistent with a flavin-based radical pair magnetoreceptor. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2022, 208, 97-106.	1.6	21
4	In Search for the Avian Trigeminal Magnetic Sensor: Distribution of Peripheral and Central Terminals of Ophthalmic Sensory Neurons in the Night-Migratory Eurasian Blackcap (Sylvia atricapilla). Frontiers in Neuroanatomy, 2022, 16, 853401.	1.7	3
5	Double cones in the avian retina form an oriented mosaic which might facilitate magnetoreception and/or polarized light sensing. Journal of the Royal Society Interface, 2022, 19, 20210877.	3.4	12
6	Computational Reconstruction and Analysis of Structural Models of Avian Cryptochrome 4. Journal of Physical Chemistry B, 2022, 126, 4623-4635.	2.6	11
7	Direct Interaction of Avian Cryptochrome 4 with a Cone Specific G-Protein. Cells, 2022, 11, 2043.	4.1	11
8	Cryptochrome 1a localisation in light- and dark-adapted retinae of several migratory and non-migratory bird species: no signs of light-dependent activation. Ethology Ecology and Evolution, 2021, 33, 248-272.	1.4	30
9	Double Cones and the Diverse Connectivity of Photoreceptors and Bipolar Cells in an Avian Retina. Journal of Neuroscience, 2021, 41, 5015-5028.	3.6	18
10	Navigation by extrapolation of geomagnetic cues in a migratory songbird. Current Biology, 2021, 31, 1563-1569.e4.	3.9	34
11	Endless skies and open seasÂâ€“ how birds and fish navigate. Neuroforum, 2021, 27, 127-139.	0.3	5
12	Magnetoreception and navigation in vertebrates from quantum mechanics to neuroscience and behaviour. Neuroforum, 2021, 27, 123-125.	0.3	0
13	Magnetic sensitivity of cryptochrome 4 from a migratory songbird. Nature, 2021, 594, 535-540.	27.8	171
14	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
15	Distinguishing between coherent and incoherent signals in excitation-emission spectroscopy. Optics Express, 2021, 29, 24326.	3.4	3
16	Localisation of cryptochrome 2 in the avian retina. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2021, 208, 69.	1.6	11
17	Cryptochrome magnetoreception: four tryptophans could be better than three. Journal of the Royal Society Interface, 2021, 18, 20210601.	3.4	31
18	Dense sampling of bird diversity increases power of comparative genomics. Nature, 2020, 587, 252-257.	27.8	251

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19	Protein-protein interaction of the putative magnetoreceptor cryptochrome 4 expressed in the avian retina. Scientific Reports, 2020, 10, 7364.	3.3	38
20	Natal imprinting to the Earthâ€™s magnetic field in a pelagic seabird. Current Biology, 2020, 30, 2869-2873.e2.	3.9	47
21	A newly identified trigeminal brain pathway in a night-migratory bird could be dedicated to transmitting magnetic map information. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20192788.	2.6	17
22	No evidence for the use of magnetic declination for migratory navigation in two songbird species. PLoS ONE, 2020, 15, e0232136.	2.5	18
23	A novel isoform of cryptochrome 4 (Cry4b) is expressed in the retina of a night-migratory songbird. Scientific Reports, 2020, 10, 15794.	3.3	21
24	Chemical and structural analysis of a photoactive vertebrate cryptochrome from pigeon. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19449-19457.	7.1	91
25	Electromagnetic 0.1â€“100 kHz noise does not disrupt orientation in a night-migrating songbird implying a spin coherence lifetime of less than 10 Âµs. Journal of the Royal Society Interface, 2019, 16, 20190716.	3.4	29
26	Double-Cone Localization and Seasonal Expression Pattern Suggest a Role in Magnetoreception for European Robin Cryptochrome 4. Current Biology, 2018, 28, 211-223.e4.	3.9	134
27	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
28	Magnetic map navigation in a migratory songbird requires trigeminal input. Scientific Reports, 2018, 8, 11975.	3.3	36
29	Lidocaine is a nocebo treatment for trigeminally mediated magnetic orientation in birds. Journal of the Royal Society Interface, 2018, 15, 20180124.	3.4	15
30	Long-distance navigation and magnetoreception in migratory animals. Nature, 2018, 558, 50-59.	27.8	343
31	Geomagnetic information modulates nocturnal migratory restlessness but not fueling in a long distance migratory songbird. Journal of Avian Biology, 2017, 48, 75-82.	1.2	33
32	The magnetic map sense and its use in fine-tuning the migration programme of birds. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2017, 203, 491-497.	1.6	18
33	Magnetic activation in the brain of the migratory northern wheatear (Oenanthe oenanthe). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2017, 203, 591-600.	1.6	23
34	Disruption of Magnetic Compass Orientation in Migratory Birds by Radiofrequency ElectromagneticÂFields. Biophysical Journal, 2017, 113, 1475-1484.	0.5	59
35	Migratory Eurasian Reed Warblers Can Use Magnetic Declination to Solve the Longitude Problem. Current Biology, 2017, 27, 2647-2651.e2.	3.9	73
36	A light-dependent magnetoreception mechanism insensitive to light intensity and polarization. Journal of the Royal Society Interface, 2017, 14, 20170405.	3.4	35

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37	Weak Broadband Electromagnetic Fields are More Disruptive to Magnetic Compass Orientation in a Night-Migratory Songbird (Erithacus rubecula) than Strong Narrow-Band Fields. Frontiers in Behavioral Neuroscience, 2016, 10, 55.	2.0	83
38	The Australian Bogong Moth Agrotis infusa: A Long-Distance Nocturnal Navigator. Frontiers in Behavioral Neuroscience, 2016, 10, 77.	2.0	80
39	Localisation of the Putative Magnetoreceptive Protein Cryptochrome 1b in the Retinae of Migratory Birds and Homing Pigeons. PLoS ONE, 2016, 11, e0147819.	2.5	58
40	A robust synthesis of 7,8-didemethyl-8-hydroxy-5-deazariboflavin. Beilstein Journal of Organic Chemistry, 2016, 12, 912-917.	2.2	5
41	A magnetic compass that might help coral reef fish larvae return to their natal reef. Current Biology, 2016, 26, R1266-R1267.	3.9	51
42	The quantum needle of the avian magnetic compass. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4634-4639.	7.1	148
43	Migratory blackcaps can use their magnetic compass at 5 degrees inclination, but are completely random at 0 degrees inclination. Scientific Reports, 2016, 6, 33805.	3.3	25
44	The Radical-Pair Mechanism of Magnetoreception. Annual Review of Biophysics, 2016, 45, 299-344.	10.0	492
45	The Neural Basis of Long-Distance Navigation in Birds. Annual Review of Physiology, 2016, 78, 133-154.	13.1	107
46	Migratory blackcaps tested in Emlen funnels can orient at 85 but not at 88 degrees magnetic inclination. Journal of Experimental Biology, 2015, 218, 206-11.	1.7	31
47	Re-calibration of the magnetic compass in hand-raised European robins (Erithacus rubecula). Scientific Reports, 2015, 5, 14323.	3.3	9
48	Eurasian reed warblers compensate for virtual magnetic displacement. Current Biology, 2015, 25, R822-R824.	3.9	105
49	Magnetoreception in Birds and Its Use for Long-Distance Migrationâ˘—â˘—Because our knowledge of magnetoreception did not change dramatically over the last few months, there is significant text and content overlap between the present chapter and a chapter focusing on magnetoreception in all kinds of organisms and titled â€œThe Magnetic Senses,â€•which I recently wrote for the textbook Neurosciences: Mouritsen, H., 2013. The magnetic senses. In: Galizia, C.G., Lledo, P.M. (Eds), Neurosciencesâ€”From Molecule to Behavi. , 2015, , 113-133.		13
50	Perceptual Strategies of Pigeons to Detect a Rotational Centreâ€”A Hint for Star Compass Learning?. PLoS ONE, 2015, 10, e0119919.	2.5	12
51	Star compass learning: how long does it take?. Journal of Ornithology, 2014, 155, 225-234.	1.1	24
52	Anthropogenic electromagnetic noise disrupts magnetic compass orientation in a migratory bird. Nature, 2014, 509, 353-356.	27.8	305
53	Magnetic field-driven induction of ZENK in the trigeminal system of pigeons (<i>Columba livia</i>). Journal of the Royal Society Interface, 2014, 11, 20140777.	3.4	40
54	The Magnetic Senses. , 2013, , 427-443.		23

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55	Global view of the functional molecular organization of the avian cerebrum: Mirror images and functional columns. Journal of Comparative Neurology, 2013, 521, 3614-3665.	1.6	207
56	Sun Compass Orientation Helps Coral Reef Fish Larvae Return to Their Natal Reef. PLoS ONE, 2013, 8, e66039.	2.5	67
57	Migratory Reed Warblers Need Intact Trigeminal Nerves to Correct for a 1,000 km Eastward Displacement. PLoS ONE, 2013, 8, e65847.	2.5	68
58	An experimental displacement and over 50 years of tag-recoveries show that monarch butterflies are not true navigators. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7348-7353.	7.1	64
59	Reply to Oberhauser et al.: The experimental evidence clearly shows that monarch butterflies are almost certainly not true navigators. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E3681-E3681.	7.1	5
60	Night-Migratory Songbirds Possess a Magnetic Compass in Both Eyes. PLoS ONE, 2012, 7, e43271.	2.5	28
61	An attempt to develop an operant conditioning paradigm to test for magnetic discrimination behavior in a migratory songbird. Journal of Ornithology, 2012, 153, 1165-1177.	1.1	8
62	Search for the compass needles. Nature, 2012, 484, 320-321.	27.8	40
63	The magnetic retina: light-dependent and trigeminal magnetoreception in migratory birds. Current Opinion in Neurobiology, 2012, 22, 343-352.	4.2	140
64	Robins have a magnetic compass in both eyes. Nature, 2011, 471, E1-E1.	27.8	64
65	Weather significantly influences the migratory behaviour of night-migratory songbirds tested indoors in orientation cages. Journal of Ornithology, 2011, 152, 27-35.	1.1	9
66	Migratory navigation in birds: new opportunities in an era of fast-developing tracking technology. Journal of Experimental Biology, 2011, 214, 3705-3712.	1.7	51
67	Nightâ€time neuronal activation of Cluster N in a dayâ€and nightâ€migrating songbird. European Journal of Neuroscience, 2010, 32, 619-624.	2.6	51
68	Avian Magnetoreception: Elaborate Iron Mineral Containing Dendrites in the Upper Beak Seem to Be a Common Feature of Birds. PLoS ONE, 2010, 5, e9231.	2.5	113
69	Cryptochromesâ€"a potential magnetoreceptor: what do we know and what do we want to know?. Journal of the Royal Society Interface, 2010, 7, S147-62.	3.4	174
70	Night-migratory garden warblers can orient with their magnetic compass using the left, the right or both eyes. Journal of the Royal Society Interface, 2010, 7, S227-33.	3.4	53
71	Photoreceptor-based magnetoreception: optimal design of receptor molecules, cells, and neuronal processing. Journal of the Royal Society Interface, 2010, 7, S135-46.	3.4	110
72	A Double-Clock or Jetlag Mechanism is Unlikely to be Involved in Detection of Eastâ€"West Displacements in a Long-Distance Avian Migrant. Auk, 2010, 127, 773-780.	1.4	26

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73	Acuity of a Cryptochrome and Vision-Based Magnetoreception System inÂBirds. Biophysical Journal, 2010, 99, 40-49.	0.5	107
74	Magnetic field changes activate the trigeminal brainstem complex in a migratory bird. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9394-9399.	7.1	112
75	Thermal paper can replace typewriter correction paper in Emlen funnels. Journal of Ornithology, 2009, 150, 713-715.	1.1	29
76	Visual but not trigeminal mediation of magnetic compass information in a migratory bird. Nature, 2009, 461, 1274-1277.	27.8	239
77	A Long-Distance Avian Migrant Compensates for Longitudinal Displacement during Spring Migration. Current Biology, 2008, 18, 188-190.	3.9	101
78	Wind Selection and Drift Compensation Optimize Migratory Pathways in a High-Flying Moth. Current Biology, 2008, 18, 514-518.	3.9	211
79	Calcium-binding proteins label functional streams of the visual system in a songbird. Brain Research Bulletin, 2008, 75, 348-355.	3.0	27
80	Molecular Mapping of Movement-Associated Areas in the Avian Brain: A Motor Theory for Vocal Learning Origin. PLoS ONE, 2008, 3, e1768.	2.5	246
81	Chemical Magnetoreception: Bird Cryptochrome 1a Is Excited by Blue Light and Forms Long-Lived Radical-Pairs. PLoS ONE, 2007, 2, e1106.	2.5	152
82	A Visual Pathway Links Brain Structures Active during Magnetic Compass Orientation in Migratory Birds. PLoS ONE, 2007, 2, e937.	2.5	160
83	Lateralized activation of Clusterâ€ƒN in the brains of migratory songbirds. European Journal of Neuroscience, 2007, 25, 1166-1173.	2.6	65
84	Physiological characterization of the compound eye in monarch butterflies with focus on the dorsal rim area. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2006, 192, 321-331.	1.6	68
85	The neural mechanisms of long distance animal navigation. Current Opinion in Neurobiology, 2006, 16, 481-488.	4.2	73
86	Is There a â€œMigratory Syndromeâ€•Common to All Migrant Birds?. Annals of the New York Academy of Sciences, 2005, 1046, 282-293.	3.8	113
87	Magnetoreception and its use in bird navigation. Current Opinion in Neurobiology, 2005, 15, 406-414.	4.2	183
88	Do monarch butterflies use polarized skylight for migratory orientation?. Journal of Experimental Biology, 2005, 208, 2399-2408.	1.7	68
89	Night-vision brain area in migratory songbirds. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8339-8344.	7.1	143
90	Migrating Songbirds Recalibrate Their Magnetic Compass Daily from Twilight Cues. Science, 2004, 304, 405-408.	12.6	337

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91	Cryptochromes and neuronal-activity markers colocalize in the retina of migratory birds during magnetic orientation. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14294-14299.	7.1	257
92	Migratory Birds Use Head Scans to Detect the Direction of the Earth's Magnetic Field. Current Biology, 2004, 14, 1946-1949.	3.9	71
93	At-sea distribution of waved albatrosses and the GalÃ¡pagos Marine Reserve. Biological Conservation, 2003, 110, 367-373.	4.1	32
94	Spatiotemporal Orientation Strategies of Long-Distance Migrants. , 2003, , 493-513.		51
95	Waved albatrosses can navigate with strong magnets attached to their head. Journal of Experimental Biology, 2003, 206, 4155-4166.	1.7	53
96	Virtual migration in tethered flying monarch butterflies reveals their orientation mechanisms. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10162-10166.	7.1	177
97	Navigation in birds and other animals. Image and Vision Computing, 2001, 19, 713-731.	4.5	30
98	Migrating songbirds tested in computer-controlled Emlen funnels use stellar cues for a time-independent compass. Journal of Experimental Biology, 2001, 204, 3855-3865.	1.7	67
99	A Mathematical Expectation Model for Bird Navigation based on the Clock-and-Compass Strategy. Journal of Theoretical Biology, 2000, 207, 283-291.	1.7	56
100	Redstarts,Phoenicurus phoenicurus, can orient in a true-zero magnetic field. Animal Behaviour, 1998, 55, 1311-1324.	1.9	67
101	Modelling migration: the clock-and-compass model can explain the distribution of ringing recoveries. Animal Behaviour, 1998, 56, 899-907.	1.9	58