Catherine Emily Carr

List of Publications by Year
in descending order

61 papers	2,061 citations	279798 23 h-index	254184 43 g-index
70 all docs	70 docs citations	70 times ranked	1205 citing authors

#	Article	IF	Citations
1	Hearing without a tympanic ear. Journal of Experimental Biology, 2022, 225, .	1.7	10
2	Strongly directional responses to tones and conspecific calls in the auditory nerve of the Tokay gecko, <i>Gekko gecko</i>. Journal of Neurophysiology, 2021, 125, 887-902.	1.8	2
3	Bone conduction pathways confer directional cues to salamanders. Journal of Experimental Biology, 2021, 224, .	1.7	4
4	Theoretical Relationship Between Two Measures of Spike Synchrony: Correlation Index and Vector Strength. Frontiers in Neuroscience, 2021, 15, 761826.	2.8	2
5	Seismic sensitivity and bone conduction mechanisms enable extratympanic hearing in salamanders. Journal of Experimental Biology, 2020, 223, .	1.7	6
6	Zebrin Expression in the Cerebellum of Two Crocodilian Species. Brain, Behavior and Evolution, 2020, 95, 45-55.	1.7	1
7	Evolution of Central Pathways. , 2020, , 354-376.		3
8	Bony labyrinth morphometry reveals hidden diversity in lungless salamanders (Family) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 467 Td (Plet Evolution; International Journal of Organic Evolution, 2019, 73, 2135-2150.	2.3	10
9	Neural Maps of Interaural Time Difference in the American Alligator: A Stable Feature in Modern Archosaurs. Journal of Neuroscience, 2019, 39, 3882-3896.	3.6	10
10	Dynamics of synaptic extracellular field potentials in the nucleus laminaris of the barn owl. Journal of Neurophysiology, 2019, 121, 1034-1047.	1.8	1
11	Auditory Brainstem Response Wave III is Correlated with Extracellular Field Potentials from Nucleus Laminaris of the Barn Owl. Acta Acustica United With Acustica, 2018, 104, 874-877.	0.8	5
12	Contribution of action potentials to the extracellular field potential in the nucleus laminaris of barn owl. Journal of Neurophysiology, 2018, 119, 1422-1436.	1.8	13
13	Evolution of Sound Source Localization Circuits in the Nonmammalian Vertebrate Brainstem. Brain, Behavior and Evolution, 2017, 90, 131-153.	1.7	19
14	A circuit for detection of interaural time differences in the nucleus laminaris of turtles. Journal of Experimental Biology, 2017, 220, 4270-4281.	1.7	5
15	Development of auditory sensitivity in the barn owl. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2017, 203, 843-853.	1.6	18
16	Dipolar extracellular potentials generated by axonal projections. ELife, 2017, 6, .	6.0	23
17	Cracking an improbable sensory map. Journal of Experimental Biology, 2016, 219, 3829-3831.	1.7	6
18	Animals and ICE: meaning, origin, and diversity. Biological Cybernetics, 2016, 110, 237-246.	1.3	24

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19	Coupled ears in lizards and crocodilians. Biological Cybernetics, 2016, 110, 291-302.	1.3	19
20	Evolutionary trends in directional hearing. Current Opinion in Neurobiology, 2016, 40, 111-117.	4.2	27
21	In-air hearing of a diving duck: A comparison of psychoacoustic and auditory brainstem response thresholds. Journal of the Acoustical Society of America, 2016, 139, 3001-3008.	1.1	17
22	Maps of interaural delay in the owl's nucleus laminaris. Journal of Neurophysiology, 2015, 114, 1862-1873.	1.8	22
23	Sound Localization Strategies in Three Predators. Brain, Behavior and Evolution, 2015, 86, 17-27.	1.7	27
24	Sound localization in the alligator. Hearing Research, 2015, 329, 11-20.	2.0	25
25	Biophysics of directional hearing in the American alligator (<i>Alligator mississippiensis</i>). Journal of Experimental Biology, 2014, 217, 1094-1107.	1.7	45
26	Middle Ear Cavity Morphology Is Consistent with an Aquatic Origin for Testudines. PLoS ONE, 2013, 8, e54086.	2.5	34
27	Linear summation in the barn owl's brainstem underlies responses to interaural time differences. Journal of Neurophysiology, 2013, 110, 117-130.	1.8	19
28	Biophysical basis of the sound analog membrane potential that underlies coincidence detection in the barn owl. Frontiers in Computational Neuroscience, 2013, 7, 102.	2.1	16
29	Theoretical foundations of the sound analog membrane potential that underlies coincidence detection in the barn owl. Frontiers in Computational Neuroscience, 2013, 7, 151.	2.1	20
30	Specialization for underwater hearing by the tympanic middle ear of the turtle,<i>Trachemys scripta elegans</i>. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 2816-2824.	2.6	62
31	Signal-to-noise ratio in the membrane potential of the owl's auditory coincidence detectors. Journal of Neurophysiology, 2012, 108, 2837-2845.	1.8	5
32	Synaptic Mechanisms of Coincidence Detection. Springer Handbook of Auditory Research, 2012, , 135-164.	0.7	7
33	Organization of the auditory brainstem in a lizard, <i>Gekko gecko</i>. I. Auditory nerve, cochlear nuclei, and superior olivary nuclei. Journal of Comparative Neurology, 2012, 520, 1784-1799.	1.6	20
34	Sound localization: Jeffress and beyond. Current Opinion in Neurobiology, 2011, 21, 745-751.	4.2	131
35	Binaural processing by the gecko auditory periphery. Journal of Neurophysiology, 2011, 105, 1992-2004.	1.8	51
36	On the Origin of the Extracellular Field Potential in the Nucleus Laminaris of the Barn Owl (<i>Tyto) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.8	37

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37	Calciumâ€binding protein immunoreactivity characterizes the auditory system of <i>Gekko gecko</i>. Journal of Comparative Neurology, 2010, 518, 3409-3426.	1.6	29
38	Calcium-binding protein immunoreactivity characterizes the auditory system of Gekko gecko. Journal of Comparative Neurology, 2010, 518, spc1-spc1.	1.6	0
39	Microseconds Matter. PLoS Biology, 2010, 8, e1000405.	5.6	23
40	Auditory Responses in the Barn Owl's Nucleus Laminaris to Clicks: Impulse Response and Signal Analysis of Neurophonic Potential. Journal of Neurophysiology, 2009, 102, 1227-1240.	1.8	24
41	Detection of Interaural Time Differences in the Alligator. Journal of Neuroscience, 2009, 29, 7978-7990.	3.6	56
42	On hearing with more than one ear: lessons from evolution. Nature Neuroscience, 2009, 12, 692-697.	14.8	109
43	Maps of interaural time difference in the chickenâ€™s brainstem nucleus laminaris. Biological Cybernetics, 2008, 98, 541-559.	1.3	103
44	Evolution of a sensory novelty: Tympanic ears and the associated neural processing. Brain Research Bulletin, 2008, 75, 365-370.	3.0	83
45	Beyond timing in the auditory brainstem: intensity coding in the avian cochlear nucleus angularis. Progress in Brain Research, 2007, 165, 123-133.	1.4	33
46	Functional delay of myelination of auditory delay lines in the nucleus laminaris of the barn owl. Developmental Neurobiology, 2007, 67, 1957-1974.	3.0	29
47	Development of N-methyl-D-aspartate receptor subunits in avian auditory brainstem. Journal of Comparative Neurology, 2007, 502, 400-413.	1.6	16
48	Interaural timing difference circuits in the auditory brainstem of the emu (Dromaius) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302 Td (nova	1.6	41
49	Microsecond Precision of Phase Delay in the Auditory System of the Barn Owl. Journal of Neurophysiology, 2005, 94, 1655-1658.	1.8	43
50	Bigger Brains or Bigger Nuclei? Regulating the Size of Auditory Structures in Birds. Brain, Behavior and Evolution, 2004, 63, 169-180.	1.7	40
51	Coding interaural time differences at low best frequencies in the barn owl. Journal of Physiology (Paris), 2004, 98, 99-112.	2.1	23
52	Timing is everything: Organization of timing circuits in auditory and electrical sensory systems. Journal of Comparative Neurology, 2004, 472, 131-133.	1.6	20
53	The Evolution of Central Pathways and Their Neural Processing Patterns. Springer Handbook of Auditory Research, 2004, , 289-359.	0.7	50
54	Modeling coincidence detection in nucleus laminaris. Biological Cybernetics, 2003, 89, 388-396.	1.3	44

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55	Localization of KCNC1 (Kv3.1) potassium channel subunits in the avian auditory nucleus magnocellularis and nucleus laminaris during development. Journal of Neurobiology, 2003, 55, 165-178.	3.6	30
56	The cytoarchitecture of the nucleus angularis of the barn owl (Tyto alba). Journal of Comparative Neurology, 2001, 429, 192-205.	1.6	39
57	A dendritic model of coincidence detection in the avian brainstem. Neurocomputing, 1999, 26-27, 263-269.	5.9	22
58	Development of calretinin immunoreactivity in the brainstem auditory nuclei of the barn owl (Tyto) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50		42
59	The role of dendrites in auditory coincidence detection. Nature, 1998, 393, 268-272.	27.8	348
60	Development of AMPA-selective glutamate receptors in the auditory brainstem of the barn owl. , 1998, 41, 176-186.		20
61	Low-frequency pathway in the barn owl's auditory brainstem. Journal of Comparative Neurology, 1997, 378, 265-282.	1.6	47