Cynthia F. Moss

List of Publications by Year
in descending order

98 papers	3,968 citations	136950 32 h-index	133252 59 g-index
104 all docs	104 docs citations	104 times ranked	2365 citing authors

#	Article	IF	Citations
1	From spatial orientation to food acquisition in echolocating bats. Trends in Ecology and Evolution, 2003, 18, 386-394.	8.7	609
2	Hippocampal cellular and network activity in freely moving echolocating bats. Nature Neuroscience, 2007, 10, 224-233.	14.8	263
3	Echolocating Bats Use a Nearly Time-Optimal Strategy to Intercept Prey. PLoS Biology, 2006, 4, e108.	5.6	192
4	Bat wing sensors support flight control. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11291-11296.	7.1	154
5	What the bat's voice tells the bat's brain. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 8491-8498.	7.1	139
6	Acoustic scanning of natural scenes by echolocation in the big brown bat, Eptesicus fuscus. Journal of Experimental Biology, 2009, 212, 1011-1020.	1.7	128
7	Probing the natural scene by echolocation in bats. Frontiers in Behavioral Neuroscience, 2010, 4, .	2.0	123
8	Optimal Localization by Pointing Off Axis. Science, 2010, 327, 701-704.	12.6	120
9	Active Listening for Spatial Orientation in a Complex Auditory Scene. PLoS Biology, 2006, 4, e79.	5.6	120
10	Flying in silence: Echolocating bats cease vocalizing to avoid sonar jamming. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 13116-13121.	7.1	105
11	Accuracy of target ranging in echolocating bats: acoustic information processing. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1989, 165, 383-393.	1.6	80
12	Discrimination of infant isolation calls by female greater spear-nosed bats, Phyllostomus hastatus. Animal Behaviour, 2007, 73, 423-432.	1.9	78
13	Bat and Rat Neurons Differ in Theta-Frequency Resonance Despite Similar Coding of Space. Science, 2013, 340, 363-367.	12.6	78
14	Adaptive vocal behavior drives perception by echolocation in bats. Current Opinion in Neurobiology, 2011, 21, 645-652.	4.2	68
15	The Lombard Effect: From Acoustics to Neural Mechanisms. Trends in Neurosciences, 2018, 41, 938-949.	8.6	68
16	Sensing in a noisy world: lessons from auditory specialists, echolocating bats. Journal of Experimental Biology, 2017, 220, 4554-4566.	1.7	66
17	Bats coordinate sonar and flight behavior as they forage in open and cluttered environments. Journal of Experimental Biology, 2014, 217, 4356-64.	1.7	65
18	Social Calls Predict Foraging Success in Big Brown Bats. Current Biology, 2014, 24, 885-889.	3.9	62

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19	Adaptive echolocation behavior in bats for the analysis of auditory scenes. Journal of Experimental Biology, 2009, 212, 1392-1404.	1.7	59
20	The role of the external ear in vertical sound localization in the free flying bat,Eptesicus fuscus. Journal of the Acoustical Society of America, 2007, 121, 2227-2235.	1.1	52
21	Timing matters: sonar call groups facilitate target localization in bats. Frontiers in Physiology, 2014, 5, 168.	2.8	52
22	A Sensorimotor Approach to Sound Localization. Neural Computation, 2008, 20, 603-635.	2.2	50
23	Effects of competitive prey capture on flight behavior and sonar beam pattern in paired big brown bats,Eptesicus fuscus. Journal of Experimental Biology, 2010, 213, 3348-3356.	1.7	49
24	Bats regulate biosonar based on the availability of visual information. Current Biology, 2015, 25, R1124-R1125.	3.9	49
25	Three-dimensional auditory localization in the echolocating bat. Current Opinion in Neurobiology, 2016, 41, 78-86.	4.2	45
26	Adaptive behavior for texture discrimination by the free-flying big brown bat, Eptesicus fuscus. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2011, 197, 491-503.	1.6	42
27	Scene analysis in the natural environment. Frontiers in Psychology, 2014, 5, 199.	2.1	42
28	Introduction to special issue, â€œHow nature shaped echolocation in animalsâ€• Frontiers in Physiology, 2013, 4, 193.	2.8	41
29	Dynamic representation of 3D auditory space in the midbrain of the free-flying echolocating bat. ELife, 2018, 7, .	6.0	41
30	Social learning of a novel foraging task by big brown bats, Eptesicus fuscus. Animal Behaviour, 2011, 82, 1075-1083.	1.9	38
31	Active Control of Acoustic Field-of-View in a Biosonar System. PLoS Biology, 2011, 9, e1001150.	5.6	36
32	Correlated evolution between hearing sensitivity and social calls in bats. Biology Letters, 2006, 2, 561-564.	2.3	35
33	Behavioral responses of big brown bats to dives by praying mantises. Journal of Experimental Biology, 2009, 212, 693-703.	1.7	34
34	Dynamics of hippocampal spatial representation in echolocating bats. Hippocampus, 2011, 21, 150-161.	1.9	34
35	Social calls of flying big brown bats (Eptesicus fuscus). Frontiers in Physiology, 2013, 4, 214.	2.8	34
36	Somatosensory Substrates of Flight Control in Bats. Cell Reports, 2015, 11, 851-858.	6.4	34

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37	Action Enhances Acoustic Cues for 3-D Target Localization by Echolocating Bats. PLoS Biology, 2016, 14, e1002544.	5.6	34
38	Free-flight encounters between praying mantids (Parasphendale agrionina) and bats (Eptesicus fuscus). Journal of Experimental Biology, 2008, 211, 555-562.	1.7	33
39	Pup guarding by greater spear-nosed bats. Behavioral Ecology and Sociobiology, 2009, 63, 1693-1703.	1.4	32
40	Spatial perception and adaptive sonar behavior. Journal of the Acoustical Society of America, 2010, 128, 3788-3798.	1.1	26
41	Sensorimotor integration on a rapid time scale. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6605-6610.	7.1	26
42	Echolocating bats rely on audiovocal feedback to adapt sonar signal design. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10978-10983.	7.1	25
43	A 2.6â€g sound and movement tag for studying the acoustic scene and kinematics of echolocating bats. Methods in Ecology and Evolution, 2019, 10, 48-58.	5.2	25
44	Neural timing of stimulus events with microsecond precision. PLoS Biology, 2018, 16, e2006422.	5.6	23
45	Organization of the primary somatosensory cortex and wing representation in the Big Brown Bat, Eptesicus fuscus. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2011, 197, 89-96.	1.6	22
46	Grid cells in 3-D: Reconciling data and models. Hippocampus, 2015, 25, 1489-1500.	1.9	21
47	Active Listening in a Bat Cocktail Party: Adaptive Echolocation and Flight Behaviors of Big Brown Bats, <i>Eptesicus fuscus</i>, Foraging in a Cluttered Acoustic Environment. Brain, Behavior and Evolution, 2015, 86, 6-16.	1.7	21
48	Dynamic Echo Information Guides Flight in the Big Brown Bat. Frontiers in Behavioral Neuroscience, 2016, 10, 81.	2.0	21
49	Tight coordination of aerial flight maneuvers and sonar call production in insectivorous bats. Journal of Experimental Biology, 2015, 218, 3678-3688.	1.7	19
50	Functional role of airflow-sensing hairs on the bat wing. Journal of Neurophysiology, 2017, 117, 705-712.	1.8	19
51	Natural echolocation sequences evoke echo-delay selectivity in the auditory midbrain of the FM bat, Eptesicus fuscus. Journal of Neurophysiology, 2018, 120, 1323-1339.	1.8	19
52	Tongue-driven sonar beam steering by a lingual-echolocating fruit bat. PLoS Biology, 2017, 15, e2003148.	5.6	18
53	Echolocating bats accumulate information from acoustic snapshots to predict auditory object motion. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29229-29238.	7.1	18
54	Communication with self, friends and foes in active-sensing animals. Journal of Experimental Biology, 2021, 224, .	1.7	18

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55	Flying big brown bats emit a beam with two lobes in the vertical plane. Journal of the Acoustical Society of America, 2007, 122, 3717-3724.	1.1	17
56	Big brown bats (Eptesicus fuscus) emit intense search calls and fly in stereotyped flight paths as they forage in the wild. Journal of Experimental Biology, 2015, 219, 334-40.	1.7	15
57	Midbrain auditory selectivity to natural sounds. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2508-2513.	7.1	15
58	Auditory communication processing in bats: What we know and where to go.. Behavioral Neuroscience, 2019, 133, 305-319.	1.2	14
59	Neural Response Selectivity to Natural Sounds in the Bat Midbrain. Neuroscience, 2020, 434, 200-211.	2.3	13
60	Echo interval and not echo intensity drives bat flight behavior in structured corridors. Journal of Experimental Biology, 2018, 221, .	1.7	12
61	Orienting our view of the superior colliculus: specializations and general functions. Current Opinion in Neurobiology, 2021, 71, 119-126.	4.2	12
62	Directionality of nose-emitted echolocation calls from bats without a nose-leaf (Plecotus auritus). Journal of Experimental Biology, 2017, 221, .	1.7	11
63	Visual cues enhance obstacle avoidance in echolocating bats. Journal of Experimental Biology, 2021, 224, .	1.7	11
64	Mechanosensory Hairs and Hair-like Structures in the Animal Kingdom: Specializations and Shared Functions Serve to Inspire Technology Applications. Sensors, 2021, 21, 6375.	3.8	11
65	Adaptive sonar call timing supports target tracking in echolocating bats. Journal of Experimental Biology, 2018, 221, .	1.7	9
66	Echolocation and flight behavior of the bat Hipposideros armiger terasensis in a structured corridor. Journal of the Acoustical Society of America, 2018, 144, 806-813.	1.1	9
67	Echolocating bats inspect and discriminate landmark features to guide navigation. Journal of Experimental Biology, 2019, 222, .	1.7	9
68	Air Flow Sensing in Bats. , 2014, , 197-213.		9
69	Can the elongated hindwing tails of fluttering moths serve as false sonar targets to divert bat attacks?. Journal of the Acoustical Society of America, 2016, 139, 2579-2588.	1.1	7
70	Perceiving the World Through Echolocation and Vision. Springer Handbook of Auditory Research, 2016, , 265-288.	0.7	7
71	Functional Organization and Dynamic Activity in the Superior Colliculus of the Echolocating Bat,Eptesicus fuscus. Journal of Neuroscience, 2018, 38, 245-256.	3.6	7
72	When echolocating bats do not echolocate. Communicative and Integrative Biology, 2008, 1, 161-162.	1.4	6

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73	Big brown bats (Eptesicus fuscus) reveal diverse strategies for sonar target tracking in clutter. Journal of the Acoustical Society of America, 2016, 140, 1839-1849.	1.1	6
74	Timing of the advertisement call of the common tink frog (Diasporus diastema) shifts with the acoustic behaviour of local conspecifics. Bioacoustics, 2020, 29, 79-96.	1.7	6
75	Bat target tracking strategies for prey interception. Communicative and Integrative Biology, 2021, 14, 37-40.	1.4	6
76	Central nervous system regulation of finicky feeding by the blowfly.. Behavioral Neuroscience, 1983, 97, 541-548.	1.2	6
77	Frequency-modulated up-chirps produce larger evoked responses than down-chirps in the big brown bat auditory brainstem. Journal of the Acoustical Society of America, 2019, 146, 1671-1684.	1.1	5
78	Social facilitation in short-tailed fruit bats, Carollia perspicillata (Linnaeus). Behaviour, 2020, 157, 1193-1210.	0.8	5
79	Effect of background clutter on neural discrimination in the bat auditory midbrain. Journal of Neurophysiology, 2021, 126, 1772-1782.	1.8	5
80	Comparative analysis of the distribution and morphology of tactile hairs on the wing membrane of four bat species. Journal of Mammalogy, 2018, 99, 124-130.	1.3	4
81	Adaptive Echolocation and Flight Behaviors in Bats Can Inspire Technology Innovations for Sonar Tracking and Interception. Sensors, 2020, 20, 2958.	3.8	4
82	Natural acoustic stimuli evoke selective responses in the hippocampus of passive listening bats. Hippocampus, 2022, 32, 298-309.	1.9	4
83	Sensory error drives fine motor adjustment. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	4
84	Natural Statistics as Inference Principles of Auditory Tuning in Biological and Artificial Midbrain Networks. ENeuro, 2021, 8, ENEURO.0525-20.2021.	1.9	3
85	Age-dependent gene expression in the inner ear of big brown bats (Eptesicus fuscus). PLoS ONE, 2017, 12, e0186667.	2.5	3
86	Physiological Properties of Neurons in Bat Entorhinal Cortex Exhibit an Inverse Gradient along the Dorsal-Ventral Axis Compared to Entorhinal Neurons in Rat. Journal of Neuroscience, 2016, 36, 4591-4599.	3.6	2
87	Active head rolls enhance sonar-based auditory localization performance. PLoS Computational Biology, 2021, 17, e1008973.	3.2	1
88	Deafness in an auditory specialist, the big brown bat (Eptesicus fuscus). Hearing Research, 2021, 412, 108377.	2.0	1
89	The role of wing airflow sensors in bat flight control under wind gust conditions. Frontiers in Behavioral Neuroscience, 0, 6, .	2.0	1
90	Meridional anisotropy of spatial displacement detection. Perception & Psychophysics, 1984, 36, 466-472.	2.3	0

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91	BatFlash: A head-mounted LED for detecting bat echolocation. , 2016, , .		0
92	Cynthia F. Moss. Current Biology, 2021, 31, R1365-R1366.	3.9	0
93	Tactile sensing along the wing of the echolocating bat, Eptesicus fuscus. Frontiers in Behavioral Neuroscience, 0, 6, .	2.0	0
94	Specificity of auditory responses in the superior colliculus of an echolocating bat.. Frontiers in Behavioral Neuroscience, 0, 6, .	2.0	0
95	How nature shaped echolocation in animals. Frontiers Research Topics, 0, , .	0.2	0
96	Painting the world with sounds, perceiving the world from echoes. , 2017, , 17-24.		0
97	Inflight head stabilization associated with wingbeat cycle and sonar emissions in the lingual echolocating Egyptian fruit bat, Rousettus aegyptiacus. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2021, 207, 757-772.	1.6	0
98	Cover Image, Volume 32, Issue 4. Hippocampus, 2022, 32, .	1.9	0