Franz Goller

List of Publications by Year
in descending order

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71	2,473	186265	223800
papers	citations	28 h-index	46 g-index

73	73	73	1300
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The metabolic cost of birdsong production. Journal of Experimental Biology, 2001, 204, 3379-3388.	1.7	207
2	The neuromuscular control of birdsong. Philosophical Transactions of the Royal Society B: Biological Sciences, 1999, 354, 927-939.	4.0	172
3	Peripheral mechanisms for vocal production in birds â€“ differences and similarities to human speech and singing. Brain and Language, 2010, 115, 69-80.	1.6	110
4	Superfast Vocal Muscles Control Song Production in Songbirds. PLoS ONE, 2008, 3, e2581.	2.5	105
5	Peripheral Motor Dynamics of Song Production in the Zebra Finch. Annals of the New York Academy of Sciences, 2004, 1016, 130-152.	3.8	99
6	Direct observation of syringeal muscle function in songbirds and a parrot. Journal of Experimental Biology, 2002, 205, 25-35.	1.7	89
7	Implications for lateralization of bird song from unilateral gating of bilateral motor patterns. Nature, 1995, 373, 63-66.	27.8	80
8	Motor dynamics of song production by mimic thrushes. Journal of Neurobiology, 1994, 25, 917-936.	3.6	76
9	Motor Correlates of Vocal Diversity in Songbirds. , 1997, , 235-288.		71
10	Respiratory patterns and oxygen consumption in singing zebra finches. Journal of Experimental Biology, 2003, 206, 967-978.	1.7	68
11	Fossil evidence of the avian vocal organ from the Mesozoic. Nature, 2016, 538, 502-505.	27.8	65
12	Integrative physiology of fundamental frequency control in birds. Journal of Physiology (Paris), 2013, 107, 230-242.	2.1	61
13	Direct observation of syringeal muscle function in songbirds and a parrot. Journal of Experimental Biology, 2002, 205, 25-35.	1.7	60
14	Somatosensory feedback modulates the respiratory motor program of crystallized birdsong. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5680-5685.	7.1	59
15	Frequency Modulation During Song in a Suboscine Does Not Require Vocal Muscles. Journal of Neurophysiology, 2008, 99, 2383-2389.	1.8	52
16	Metabolic and Respiratory Costs of Increasing Song Amplitude in Zebra Finches. PLoS ONE, 2011, 6, e23198.	2.5	50
17	A heterogeneous thermal environment enables remarkable behavioral thermoregulation in Uta stansburiana. Ecology and Evolution, 2014, 4, 3319-3329.	1.9	48
18	Tracheal length changes during zebra finch song and their possible role in upper vocal tract filtering. Journal of Neurobiology, 2004, 59, 319-330.	3.6	47

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19	Beak gape dynamics during song in the zebra finch. Journal of Neurobiology, 2004, 59, 289-303.	3.6	46
20	Novel motor gestures for phonation during inspiration enhance the acoustic complexity of birdsong. Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 2301-2305.	2.6	44
21	Nonlinear Model Predicts Diverse Respiratory Patterns of Birdsong. Physical Review Letters, 2006, 96, 058103.	7.8	41
22	Morphological basis for the evolution of acoustic diversity in oscine songbirds. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20132306.	2.6	41
23	Sexual Dimorphism of the Zebra Finch Syrinx Indicates Adaptation for High Fundamental Frequencies in Males. PLoS ONE, 2010, 5, e11368.	2.5	41
24	Identity and novelty in the avian syrinx. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10209-10217.	7.1	38
25	Select forelimb muscles have evolved superfast contractile speed to support acrobatic social displays. ELife, 2016, 5, e13544.	6.0	37
26	Songbirds use pulse tone register in two voices to generate low-frequency sound. Proceedings of the Royal Society B: Biological Sciences, 2007, 274, 2703-2710.	2.6	36
27	Coos, booms, and hoots: The evolution of closedâ€mouth vocal behavior in birds. Evolution; International Journal of Organic Evolution, 2016, 70, 1734-1746.	2.3	34
28	Breathtaking Songs: Coordinating the Neural Circuits for Breathing and Singing. Physiology, 2016, 31, 442-451.	3.1	33
29	The evolution of the syrinx: An acoustic theory. PLoS Biology, 2019, 17, e2006507.	5.6	33
30	Temperature Induced Syllable Breaking Unveils Nonlinearly Interacting Timescales in Birdsong Motor Pathway. PLoS ONE, 2013, 8, e67814.	2.5	33
31	Evolution of Vocal Diversity through Morphological Adaptation without Vocal Learning or Complex Neural Control. Current Biology, 2017, 27, 2677-2683.e3.	3.9	30
32	Androgens Support Male Acrobatic Courtship Behavior by Enhancing Muscle Speed and Easing the Severity of Its Tradeoff With Force. Endocrinology, 2017, 158, 4038-4046.	2.8	30
33	A circular model for song motor control in Serinus canaria. Frontiers in Computational Neuroscience, 2015, 9, 41.	2.1	29
34	Physiological constraint on acrobatic courtship behavior underlies rapid sympatric speciation in bearded manakins. ELife, 2018, 7, .	6.0	25
35	Sexual dimorphism and bilateral asymmetry of syrinx and vocal tract in the European starling (Sturnus vulgaris). Journal of Morphology, 2011, 272, 1527-1536.	1.2	24
36	Bilaterally symmetrical respiratory activity during lateralized birdsong. , 1999, 41, 513-523.		23

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37	The acoustic effect of vocal tract adjustments in zebra finches. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2013, 199, 57-69.	1.6	23
38	Smooth Operator: Avoidance of Subharmonic Bifurcations through Mechanical Mechanisms Simplifies Song Motor Control in Adult Zebra Finches. Journal of Neuroscience, 2010, 30, 13246-13253.	3.6	19
39	Vocal athletics â€“ from birdsong production mechanisms to sexy songs. Animal Behaviour, 2022, 184, 173-184.	1.9	19
40	Disrupting vagal feedback affects birdsong motor control. Journal of Experimental Biology, 2010, 213, 4193-4204.	1.7	16
41	Roles of syntax information in directing song development in white-crowned sparrows (zonotrichia) Tj ETQq1 1 0.784314 rgBT /Overl	0.5	15
42	Interaction between telencephalic signals and respiratory dynamics in songbirds. Journal of Neurophysiology, 2012, 107, 2971-2983.	1.8	15
43	Motor stereotypy and diversity in songs of mimic thrushes. Journal of Neurobiology, 1996, 30, 231-245.	3.6	14
44	Motor control of sound frequency in birdsong involves the interaction between air sac pressure and labial tension. Physical Review E, 2014, 89, 032706.	2.1	14
45	The functional morphology of male courtship displays in the Pectoral Sandpiper (<i>Calidris) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.4	14
46	Is sexual dimorphism in singing behavior related to syringeal muscle composition?. Auk, 2017, 134, 710-720.	1.4	14
47	Androgenic modulation of extraordinary muscle speed creates a performance trade-off with endurance. Journal of Experimental Biology, 2020, 223, .	1.7	14
48	Climbing parrots achieve pitch stability using forces and free moments produced by axialâ€“appendicular couples. Journal of Experimental Biology, 2022, 225, .	1.7	14
49	Prosthetic Avian Vocal Organ Controlled by a Freely Behaving Bird Based on a Low Dimensional Model of the Biomechanical Periphery. PLoS Computational Biology, 2012, 8, e1002546.	3.2	13
50	Atypical Song Reveals Spontaneously Developing Coordination between Multi-Modal Signals in Brown-Headed Cowbirds (Molothrus ater). PLoS ONE, 2013, 8, e65525.	2.5	12
51	Neuromuscular mechanisms of an elaborate wing display in the golden-collared manakin (Manacus) Tj ETQq1 1 0.784314 rgBT /Overl	1.7	11
52	Acquisition of an Acoustic Template Leads to Refinement of Song Motor Gestures. Journal of Neurophysiology, 2010, 104, 984-993.	1.8	10
53	Song Feature Specific Analysis of Isolate Song Reveals Interspecific Variation in Learned Components. Developmental Neurobiology, 2019, 79, 350-369.	3.0	10
54	Adult zebra finches rehearse highly variable song patterns during sleep. PeerJ, 2017, 5, e4052.	2.0	10

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55	Tutor model syntax influences the syntactical and phonological structure of crystallized songs of white-crowned sparrows. Animal Behaviour, 2008, 76, 1815-1827.	1.9	9
56	Vocal gymnastics and the bird brain. Nature, 1998, 395, 11-12.	27.8	8
57	Contributions of rapid neuromuscular transmission to the fine control of acoustic parameters of birdsong. Journal of Neurophysiology, 2017, 117, 637-645.	1.8	8
58	Unusual Avian Vocal Mechanism Facilitates Encoding of Body Size. Physical Review Letters, 2020, 124, 098101.	7.8	8
59	From electromyographic activity to frequency modulation in zebra finch song. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2018, 204, 209-217.	1.6	7
60	Syringeal EMGs and synthetic stimuli reveal a switch-like activation of the songbirdâ€™s vocal motor program. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8436-8441.	7.1	7
61	Gating related activity in a syringeal muscle allows the reconstruction of zebra finches songs. Chaos, 2018, 28, 075517.	2.5	5
62	Specialized androgen synthesis in skeletal muscles that actuate elaborate social displays. Journal of Experimental Biology, 2022, 225, .	1.7	5
63	Male moths optimally balance take-off thoracic temperature and warm-up duration to reach a pheromone source quickly. Animal Behaviour, 2014, 98, 79-85.	1.9	4
64	Dynamics behind rough sounds in the song of thePitangus sulphuratus. Physical Review E, 2020, 102, 062415.	2.1	4
65	Multifunctional bilateral muscle control of vocal output in the songbird syrinx. Journal of Neurophysiology, 2020, 124, 1857-1874.	1.8	4
66	Different frequency control mechanisms and the exploitation of frequency space in passerines. Ecology and Evolution, 2021, 11, 6569-6578.	1.9	3
67	Processes underlying complex patterns of song trait evolution in a Setophaga hybrid zone. Ecology and Evolution, 2021, 11, 7264-7277.	1.9	3
68	Replay of innate vocal patterns during night sleep in suboscines. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20210610.	2.6	2
69	Birds breathe at an aerodynamic resonance. Chaos, 2021, 31, 123132.	2.5	2
70	Regulation of glycosaminoglycan biogenesis is critical for sensitiveâ€periodâ€dependent vocal ontogeny. Developmental Neurobiology, 2017, 77, 1401-1412.	3.0	0
71	Enzymatic Alteration of ECM to Explore Muscle Function and Motor Control of a Learned Behavior. Methods in Molecular Biology, 2022, 2303, 487-493.	0.9	0