# RÃ¼diger Krahe

List of Publications by Year
in descending order

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Burst firing in sensory systems. Nature Reviews Neuroscience, 2004, 5, 13-23. | 10.2 | 389 |
| 2 | Representation of Acoustic Communication Signals by Insect Auditory Receptor Neurons. Journal of Neuroscience, 2001, 21, 3215-3227. | 3.6 | 131 |
| 3 | Communication in troubled waters: responses of fish communication systems to changing environments. Evolutionary Ecology, 2011, 25, 623-640. | 1.2 | 120 |
| 4 | Modeling signal and background components of electrosensory scenes. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2005, 191, 331-345. | 1.6 | 113 |
| 5 | Neural maps in the electrosensory system of weakly electric fish. Current Opinion in Neurobiology, 2014, 24, 13-21. | 4.2 | 105 |
| 6 | Temporal Processing Across Multiple Topographic Maps in the Electrosensory System. Journal of Neurophysiology, 2008, 100, 852-867. | 1.8 | 102 |
| 7 | Statistics of the Electrosensory Input in the Freely Swimming Weakly Electric Fish<i>Apteronotus leptorhynchus</i>. Journal of Neuroscience, 2013, 33, 13758-13772. | 3.6 | 71 |
| 8 | Robustness and Variability of Neuronal Coding by Amplitude-Sensitive Afferents in the Weakly Electric FishEigenmannia. Journal of Neurophysiology, 2000, 84, 189-204. | 1.8 | 68 |
| 9 | Species differences in group size and electrosensory interference in weakly electric fishes: Implications for electrosensory processing. Behavioural Brain Research, 2010, 207, 368-376. | 2.2 | 57 |
| 10 | The energetics of electric organ discharge generation in gymnotiform weakly electric fish. Journal of Experimental Biology, 2013, 216, 2459-2468. | 1.7 | 57 |
| 11 | Statistics of Natural Communication Signals Observed in the Wild Identify Important Yet Neglected Stimulus Regimes in Weakly Electric Fish. Journal of Neuroscience, 2018, 38, 5456-5465. | 3.6 | 51 |
| 12 | Stimulus Encoding and Feature Extraction by Multiple Sensory Neurons. Journal of Neuroscience, 2002, 22, 2374-2382. | 3.6 | 50 |
| 13 | Electrical signalling of dominance in a wild population of electric fish. Biology Letters, 2011, 7, 197-200. | 2.3 | 43 |
| 14 | Muscarinic Receptors Control Frequency Tuning Through the Downregulation of an A-Type Potassium Current. Journal of Neurophysiology, 2007, 98, 1526-1537. | 1.8 | 35 |
| 15 | Energetic constraints on electric signalling in wave-type weakly electric fishes. Journal of Experimental Biology, 2011, 214, 4141-4150. | 1.7 | 30 |
| 16 | Neuromodulation of early electrosensory processing in gymnotiform weakly electric fish. Journal of Experimental Biology, 2013, 216, 2442-2450. | 1.7 | 30 |
| 17 | Temporal integration vs. parallel processing: coping with the variability of neuronal messages in directional hearing of insects. European Journal of Neuroscience, 2000, 12, 2147-2156. | 2.6 | 29 |
| 18 | Miocene and Pliocene colonization of the Central American Isthmus by the weakly electric fish <i><scp>B</scp>rachyhypopomus occidentalis</i> (Hypopomidae, Gymnotiformes). Journal of Biogeography, 2014, 41, 1520-1532. | 3.0 | 28 |

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| 19 | Predators inhibit brain cell proliferation in natural populations of electric fish, <i>Brachyhypopomus occidentalis</i>. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20152113. | 2.6 | 28 |
| 20 | Burst Firing in the Electrosensory System of Gymnotiform Weakly Electric Fish: Mechanisms and Functional Roles. Frontiers in Computational Neuroscience, 2016, 10, 81. | 2.1 | 24 |
| 21 | Tracking activity patterns of a multispecies community of gymnotiform weakly electric fish in their neotropical habitat without tagging. Journal of Experimental Biology, 2020, 223, . | 1.7 | 23 |
| 22 | Driftâ€driven evolution of electric signals in a Neotropical knifefish. Evolution; International Journal of Organic Evolution, 2016, 70, 2134-2144. | 2.3 | 18 |
| 23 | Tempo and mode of allopatric divergence in the weakly electric fish Sternopygus dariensis in the Isthmus of Panama. Scientific Reports, 2019, 9, 18828. | 3.3 | 15 |
| 24 | Predation and Crypsis in the Evolution of Electric Signaling in Weakly Electric Fishes. Frontiers in Ecology and Evolution, 2019, 7, . | 2.2 | 12 |
| 25 | Distribution of muscarinic acetylcholine receptor mRNA in the brain of the weakly electric fish <i>Apteronotus leptorhynchus</i>. Journal of Comparative Neurology, 2013, 521, 1054-1072. | 1.6 | 11 |
| 26 | Effects of hypoxia on swimming and sensing in a weakly electric fish. Journal of Experimental Biology, 2018, 221, . | 1.7 | 11 |
| 27 | Subsecond Sensory Modulation of Serotonin Levels in a Primary Sensory Area and Its Relation to Ongoing Communication Behavior in a Weakly Electric Fish. ENeuro, 2016, 3, ENEURO.0115-16.2016. | 1.9 | 10 |
| 28 | First record of Gymnotus henni (Albert, Crampton and Maldonado, 2003) in Panama: phylogenetic position and electric signal characterization. Check List, 2013, 9, 655. | 0.4 | 9 |
| 29 | Pattern of aromatase mRNA expression in the brain of a weakly electric fish, Apteronotus leptorhynchus. Journal of Chemical Neuroanatomy, 2018, 90, 70-79. | 2.1 | 8 |
| 30 | Effects of hypoxia on aerobic metabolism and active electrosensory acquisition in the African weakly electric fish <scp><i>Marcusenius victoriae</i></scp>. Journal of Fish Biology, 2020, 96, 496-505. | 1.6 | 7 |
| 31 | Long Rise Times of Acoustic Stimuli Improve Directional Hearing in Grasshoppers. Die Naturwissenschaften, 1997, 84, 168-170. | 1.6 | 5 |
| 32 | The effect of normoxia exposure on hypoxia tolerance and sensory sampling in a swamp-dwelling mormyrid fish. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2020, 240, 110586. | 1.8 | 5 |
| 33 | Directional hearing is only weakly dependent on the rise time of acoustic stimuli. Journal of the Acoustical Society of America, 2000, 107, 1067-1070. | 1.1 | 4 |
| 34 | Mitogenomics of Central American weakly-electric fishes. Gene, 2019, 686, 164-170. | 2.2 | 4 |
| 35 | Distribution of the cholinergic nuclei in the brain of the weakly electric fish, <scp><i>Apteronotus leptorhynchus</i></scp>: Implications for sensory processing. Journal of Comparative Neurology, 2021, 529, 1810-1829. | 1.6 | 3 |
| 36 | Hypoxia acclimation increases novelty response strength during fast-starts in the African mormyrid, Marcusenius victoriae. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2017, 213, 36-45. | 1.8 | 2 |

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| 37 | Evolutionary Drivers of Electric Signal Diversity. Springer Handbook of Auditory Research, 2019, , 191-226. | 0.7 | 2 |
| 38 | The weakly electric fish, Apteronotus albifrons, actively avoids experimentally induced hypoxia. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2021, 207, 369-379. | 1.6 | 1 |
| 39 | A Spark in the Dark: Uncovering Natural Activity Patterns of Mormyrid Weakly Electric Fish. Frontiers in Ecology and Evolution, 0, 10, . | 2.2 | 1 |