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Sommario/riassunto	This book provides a comparative perspective on the topic of electroreception and reviews some of the fundamental insights gained from studies of electrosensory and electromotor systems to understand how the nervous system extracts biologically relevant information from the natural environment A Brief History of Electrogenesis and Electroreception in Fishes Bruce A. Carlson and Joseph A. Sisneros The

Development and Evolution of Lateral Line Electroreceptors: Insights from Comparative Molecular Approaches Clare V. H. Baker Electrosensory Transduction: Comparisons Across Structure, Afferent Response Properties, and Cellular Physiology Duncan B. Leitch and David Julius The Evolution and Development of Electric Organs Jason R. Gallant Biophysical Basis of Electric Signal Diversity Michael R. Markham Hormonal Influences on Social Behavior in South American Weakly Electric Fishes Ana C. Silva Evolutionary Drivers of Electric Signal Diversity Rüdiger Krahe Using Control Theory to Characterize Active Sensing in Weakly Electric Fishes Sarah A. Stamper, Manu S. Madhav, Noah J. Cowan, and Eric S. Fortune Envelope Coding and Processing: Implications for Perception and Behavior Michael G. Metzen and Maurice J. Chacron Evolution of Submillisecond Temporal Coding in Vertebrate Electrosensory and Auditory Systems Bruce A. Carlson Influences of Motor Systems on Electrosensory Processing Krista Perks and Nathaniel B. Sawtell Active Electrolocation and Spatial Learning Sarah Nicola Jung and Jacob Engelmann Bruce A. Carlson is Professor of Biology at Washington University in St. Louis Joseph A. Sisneros is Professor of Psychology at the University of Washington, Seattle Arthur N. Popper is Professor Emeritus and research professor in the Department of Biology at the University of Maryland, College Park Richard R. Fay is Distinguished Research Professor of Psychology at Loyola University Chicago, Chicago .