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Nota di contenuto	Preface; Günther Witzany -- 1. Why Biocommunication of Animals?; Günther Witzany -- 2. Signs of Communication in Chimpanzees; Mary Lee A. Jensvold et al -- 3. African and Asian elephant vocal communication: A cross-species comparison; Angela Stoeger, Shermin de Silva -- 4. The information content of wolf (and dog) social communication; Tamás Faragó et al -- 5. Social origin of vocal communication in rodents; Stefan M. Brudzynski -- 6. Why the caged mouse sings: Studies of the mouse ultrasonic song system and vocal behavior; Gustavo Arriaga -- 7. Vibrational Communication: Spiders to Kangaroo Rats; Jan A. Randall -- 8. Communicative Coordination in Bees; Günther Witzany -- 9. Social association brings out the altruism in an ant; Kenji Hara -- 10. Termite communication during different behavioral activities; Ana Maria Costa-Leonardo, Ives Haifig -- 11.

Crows and Crow Feeders: Observations on Interspecific Semiotics; John M. Marzluff, Marc L. Miller -- 12. Interspecies communication with Grey Parrots: A tool for examining cognitive processing; Irene M. Pepperberg -- 13. Singing in space and time: the biology of birdsong; Marc Naguib, Katharina Riebel -- 14. Chemical persuasion in salamanders; Lynne Houck -- 15. Chelonian vocal Communication; Camila R. Ferrara et al -- 16. Cetacean Acoustic Communication; Laela S. Sayigh -- 17. Communication in the ultraviolet: unravelling the secret language of fish; Ulrike E. Siebeck -- 18. Young squeaker catfish can already talk and listen to their conspecifics; Walter Lechner -- 19. Cognition and recognition in the cephalopod mollusc *Octopus vulgaris*: coordinating interaction with environment and conspecifics; Elena Tricarico et al -- 20. How Corals coordinate and organize: an ecosystemic analysis based fractal properties; Pierre Madl, Günther Witzany -- 21. Nematode Communication; Yen-Ping Hsueh et al -- Index.

Sommario/riassunto

Every coordination within or between animals depends on communication processes. Although the signaling molecules, vocal and tactile signs, gestures and its combinations differ throughout all species according their evolutionary origins and variety of adaptation processes, certain levels of biocommunication can be found in all animal species: (a) Abiotic environmental indices such as temperature, light, water, etc. that affect the local ecosphere of an organism and are sensed, interpreted (against stored background memory) and then being used for organisation of response behavior to adapt accordingly (concerning optimal energy cost). (b) Transspecific communication with non-related organisms as found in attac, defense and symbiotic (even endosymbiotic) sign-mediated interactions. (c) Species-specific communication between same or related species. (d) Intraorganismic communication, i.e., sign-mediated coordination within the body of the organism. This means two sublevels, such as cell-cell communication as well as intracellular signaling between cellular parts. In any case, the context of a given situation determines the meaning of the used signs: (a) growth and (b) development are different modes of behaviour and need other patterns of signaling than (c) defence or (d) reproductive patterns. Likewise, (e) mutualistic symbioses require different forms of coordination from those of (f) commensalism or (e) parasitism. Thus, this systematic approach of animal communication demonstrates that the meaning (semantics) of signs is context-dependent, and helps to give a better understanding of the full range of sign-mediated interactions of coral life. This book gives an overview of the manifold levels of animal communication exemplified by a variety of species and thereby broadens the understanding of these organisms.
