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Nota di contenuto	Cover; Contents; Preface; Acknowledgements; Part 1 Introduction; 1 Sensory Ecology, Information, and Decision-Making; 1.1 What is Sensory Ecology?; 1.2 Many Animals Detect and Use Sensory Information Humans Cannot Perceive; 1.3 Asking Questions about Behaviour; 1.4 Information; 1.5 Future Directions; 1.6 Summary; 1.7 Further Reading; Part 2 Sensory Processing; 2 Sensing the World; 2.1 Signal Detection; 2.2 Chemical; 2.3 Electricity; 2.4 Light; 2.5 Magnetic; 2.6 Mechanical; 2.7 Sound; 2.8 Future Directions; 2.9 Summary; 2.10 Further Reading; 3 Encoding Information 3.1 Contrast and Receptive Fields in Vision 3.2 Sound Localization in Barn Owls; 3.3 Echolocation; 3.4 Olfactory Processing; 3.5 Common Principles across Species and Modalities; 3.6 Future Directions; 3.7 Summary; 3.8 Further Reading; 4 Sensory Systems: Trade-Offs, Costs, and Sensory Integration; 4.1 Energetic Costs of Sensory Systems; 4.2 When Are Sensory Systems Optimized for One Task Rather than Being Generalized for Many?; 4.3 Trade-Offs in Processing Different Components of Stimuli; 4.4 Integrating the Senses; 4.5 Future Directions; 4.6 Summary; 4.7 Further Reading; Part 3 Communication 5 Signalling and Communication 5.1 Signals and Cues; 5.2 Signal Components; 5.3 Strategic and Efficacy Costs of Signals; 5.4 What is Communication?; 5.5 There is More to Communication than Just

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11 Divergence, Sensory Drive, and Speciation

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## Sommario/riassunto

Throughout their lives animals must complete many tasks, including finding food, avoiding predators, attracting mates, and navigating through a complex and dynamic environment. Consequently, they have evolved a staggering array of sensory organs that are fundamental to survival and reproduction and shape much of their evolution and behaviour. Sensory ecology deals with how animals acquire, process, and use information in their lives, and the sensory systems involved. It investigates the type of information that is gathered by animals, how it is used in a range of behaviours, and the evolution o

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