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Nota di contenuto	Frontmatter -- Contents -- Contributors -- 1 • Introduction: On Becoming Aquatic -- 2 • The Physics and Biology of Olfaction and Taste -- 3 • The Chemical Stimulus and Its Detection -- 4 • Comparative Anatomy and Physiology of Chemical Senses in Amphibians -- 5 • Comparative Anatomy and Physiology of Chemical Senses in Nonavian Aquatic Reptiles -- 6 • Comparative Anatomy and Physiology of Chemical Senses in Aquatic Birds -- 7 • Comparative Anatomy and Physiology of Chemical Senses in Aquatic Mammals -- 8 • The Physics of Light in Air and Water -- 9 • Comparative Anatomy and Physiology of Vision in Aquatic Tetrapods -- 10 • Structure and Function of the Retina in Aquatic Tetrapods -- 11 • The Physics of Sound in Air and Water -- 12 • Comparative Anatomy and Function of Hearing in Aquatic Amphibians, Reptiles, and Birds -- 13. Hearing in Aquatic Mammals -- 14 • The Physics and Physiology of Balance -- 15 • Comparative and Functional Anatomy of Balance in Aquatic Reptiles and Birds -- 16 • Comparative and Functional Anatomy of Balance in

Sommario/riassunto

From crocodiles and penguins to seals and whales, this comprehensive and authoritative synthesis explores the function and evolution of sensory systems in animals whose ancestors lived on land. Together, the contributors explore the dramatic transformation of smell, taste, sight, hearing, balance, mechanoreception, magnetoreception, and electoreception that occurred as lineages of amphibians, reptiles, birds, and mammals returned to aquatic environments. Each chapter integrates data from fields including sensory physiology, anatomy, paleontology, and neurobiology. A one-stop source for information on the sense organs of secondarily aquatic tetrapods, *Sensory Evolution on the Threshold* sheds new light on both the evolution of aquatic vertebrates and the sensory biology of their astonishing transition.
