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| Nota di contenuto       | Part I: Introduction -- Marine Population Genomics: Challenges and Opportunities -- Part II: Marine Microbes -- Part III: Genetic Diversity, Population Structure, and Biogeography -- Population Genomics of Marine Zooplankton -- Population Genomics of Early-Splitting Lineages of Metazoans -- Population Genomics and Biogeography of the Northern Acorn Barnacle ( <i>Semibalanus balanoides</i> ) Using Pooled Sequencing Approaches -- Part IV: Seascape Genomics -- Seascape Genomics: Contextualizing Adaptive and Neutral Genomic Variation in the Ocean Environment -- Part V: Adaptation, Acclimation, and Speciation -- Clinal Adaptation in the Marine Environment -- The |

Population Genomics of Parallel Adaptation: Lessons from Threespine Stickleback -- Mechanisms of Adaptive Divergence and Speciation in *Littorina saxatilis*: Integrating Knowledge from Ecology and Genetics with New Data Emerging from Genomic Studies -- Ecological Speciation in Corals -- Environmental Epigenomics and Its Applications in Marine Organisms -- Part VI: Protection, Conservation, and Management of Marine Organisms -- Marine Invasion Genomics: Revealing Ecological and Evolutionary Consequences of Biological Invasions -- Population Genomics Applied to Fishery Management and Conservation -- Marine Conservation and Marine Protected Areas -- Index.

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Sommario/riassunto

Population genomics has provided unprecedented opportunities to unravel the mysteries of marine organisms in the oceans' depths. The world's oceans, which make up 70% of our planet, encompass diverse habitats and host numerous unexplored populations and species. Population genomics studies of marine organisms are rapidly emerging and have the potential to transform our understanding of marine populations, species, and ecosystems, providing insights into how these organisms are evolving and how they respond to different stimuli and environments. This knowledge is critical for understanding the fundamental aspects of marine life, how marine organisms will respond to environmental changes, and how we can better protect and preserve marine biodiversity and resources. This book brings together leading experts in the field to address critical aspects of fundamental and applied research in marine species and share their research and insights crucial for understanding marine ecosystem diversity and function. It also discusses the challenges, opportunities and future perspectives of marine population genomics. .

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